ASSESMENT OF IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT IN THE CONSTRUCTION INDUSTRY A CASE OF KERICHO COUNTY, KENYA.

BY

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DECLARATION

Declaration by Candidate

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To my mum Mrs. Esther Maritim for her psychosocial support

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ABSTRACT

The construction industry sector in Kenya, as in other countries, cannot be tackled effectively without harnessing Occupational Health and Safety (OHS) to safeguard the safety of the workers and the entire community. The purpose of the study was to focus on assessment of the extent of implementation of OHS management in the construction industry in Kenya, the case of Kericho County, The study was guided by the following research objectives: to find out the level of awareness on the implementation of occupational health and safety, to examine the effect of implementation policy of occupational health and safety, to find out the impact of safety training on implementation of occupational health and safety , and to establish the level of commitment of employees towards implementation of occupational health and safety. The study was based on Heinrich domino theory and Psychological Risk Approach. The study adopted quantitative research approach by adopting a descriptive survey research design. The target population was 5160 employees drawn from Kipkelion East, Kipkelion West, Belgut. Ainamoi, Bureti and Soin-Sigowet in Kericho County. Cluster random sampling technique was used. Data was collected by using a self-administered closed ended type of questionnaires from the respondents. Data was analyzed by use of both inferential statistics, while descriptive statistics in terms of mean and frequencies was used. Data was analyzed using SPSS version 20. The findings, for Level of awareness was showed a positive effect on implementation of OHS. This indicated that an increase in level of awareness of players in the construction industry capabilities made the implementation of OHS to increase. The implementation policies of OHS revealed showed that that there was compulsory use of personal protective equipment and that working environment was always cleared and kept free from all injuries. The findings on the safety training and induction revealed that the construction industry seriously should indulge in effective safety trainings so that workers can be enlightened on safety measures hence promoting accident free environment. The commitments of management remain fundamental in the implementation of OHS in the construction industry. This indicated the direction of relationship between independent (factors influencing implementation of OHS) and dependent (OHS) variables. The study therefore concluded that all the factors under study significantly affected the implementation of OHS in the construction industry. The study recommends strict adherence to the OHS regulations in order to promote safety in the construction sites.

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ABBREVIATIONS AND ACRONYMS

COHSMS	: Construction Occupational Health and Safety Management System
DOHSS	: Directorate of Occupational Safety and Health Services
FIDIC	: Federation of Consulting Engineers conditions
ILO	: International Labor Organization
JBC	: Joint Building Council Conditions International
NCA	: National Construction Authority
OSH	: Occupational Safety and Health
OSHA	: Occupational Safety and Health Administration
OSHA	: Occupational Safety and Health Act
OSHMS	: Occupational Safety and Health Management System
WIBA	: Work Injury Benefit Act

CHAPTER ONE

1.0 Introduction

The foundation of the review, the assertion of the issue, the reason, the goals of the review, the examination questions, the meaning of the review, the suppositions of the review, the extent of the review, the limits of the review, the hypothetical system, the theoretical structure, and the functional meaning of terms are completely remembered for this section.

1.1 Background of the Study

The construction industry has a significant impact on the growth of a country's economy, accounting for around 9% of global GDP (CICA, 2012). Despite this, the business remains one of the most dangerous in which to work (Mwangi, 2016). This is owing to the construction industry's lax attitude toward health and safety, which leads to a high number of injuries (Nyakango, 2007) .According to Mellor & Webster, (2013) implementing health and safety into the workplace can save businesses money and enhance productivity, allowing them to prepare for expected economic development. This necessitates the adoption of occupational health and safety management procedures by both companies and employees.

Developing a successful Occupational Safety and Health culture must begin at the highest levels of government and spread to all levels of government, companies, and employee groups (Neale & Waters, 2012).They claim that in many circumstances, if this procedure is not followed, it is ineffective. This underlines the significance of effectively checking and arranging OHS through an assortment of boundaries, including lawful help, the executives support, worker's organization backing, preparing, and the positive nature of the specialists in question, to guarantee viable execution. Since most development projects are intended to work on the overall

prosperity of a nation's inhabitants, it is unsuitably risky for a considerable number of these specialists to be killed or harmed simultaneously (Neale and Waters, 2012). OHS concerns ought to be thought of, carried out, and kept up with all through the entire life pattern of development project measures, including plan, acquirement, upkeep, and destruction stages, to decrease troubles. OHS ought not to be restricted to a solitary phase of development (Ogetii, 2019)

Consistently, something like 60,000 deadly mishaps happen on building destinations all throughout the planet; the development business' lethal physical issue rate is higher than the worldwide normal for all ventures (O.S.H.A., 2002). The business is answerable for 30-40% of all deadly wounds on the planet, with around 100,000 specialists biting the dust every year and the assessed cost of word related mishaps and sickness in all areas representing 4% of GDP (ILO, 2001). In the United Kingdom, the mishap rate is around 13 for each 100,000 specialists, while in the United States, the rate is 13.3 per 100,000 utilized laborers, with 1225 lethal word related wounds and 481,000 non-deadly wounds and ailments announced in 2001 (Smith & Pegula, 2020). Development related mishaps are likewise an issue in India and Tanzania (Kayumba, 2013). Kenyans seem to have acknowledged their destiny after a progression of fatalities and passings (Omukubi, 2012). The development business has the most noteworthy injury pace of some other industry. Accordingly, it very well might be inferred that the development business has a far reaching powerlessness to execute satisfactory danger the board through Occupational Health and Safety execution. Accordingly, mishap avoidance is turning out to be progressively pivotal, and it very well may be a major wellspring of worry in the development business.

The Factories Act, Cap 514, was sanctioned in Kenya in 1951, and it saw the ascent of word related wellbeing and security (Ndegwa et al., 2014). The International Labor Organization (ILO) sets up wellbeing and security guidelines on building destinations, which depend on worldwide shows and proposals on word related wellbeing and wellbeing (ILO, 2002). The National Workmen's Legislation (Cap 236), the Occupation Safety and Health Act, 2007, and the Factories and Other Places of Work Act 1962 all execute these norms in Kenya The Public Health Act (CAP 242), the Environmental Management and Coordination Act (1999), and the Radiation Protection Act (CAP 243) are by and large pieces of approval that arrangement with OSH. These principles are finished by the Ministry of Labor and Human Resource Development's Directorate of Occupational Health and Safety Services, and the Ministry of Health has laid out an Occupational Health Division, Ministry of Public Works (MOPW) (Somba, 2018). Alongside the venture specialist, who is under the oversight of the counsels, the Joint Building Council Conditions (JBC), International Federation of Consulting Engineers are liable for prosperity and safety efforts close by Occupational Safety and Health Act (OSHA, 2007), (Oluoch, 2012).

The inspiration driving the Occupational Safety and Health Act (OSHA 2007), as demonstrated by the International Labor Organization (ILO), is to ensure the prosperity, prosperity, and government help of people at work, similarly as to get the people who are not working from threats to their prosperity and prosperity rising up out of or with respect to the activities of people at work. The Work Injury Benefit Act (WIBA) of 2007 was founded to compensate agents for business related ailments and contaminations caused while at work, similarly with respect to other significant objectives (ILO., National Profile on Occupational Safety and Health Kenya, 2013). Additionally, the National Construction Authority (NCA), which was set up under

Act No. 41 of 2011 and set up into law in December 2011, is entrusted with investigating development and building projects the nation over to guarantee top caliber of work and to close undertakings that present wellbeing dangers or breakdown perils (G.O.K., 2011). The Authority's central goal was to smooth out, rebuild, and direct an industry that had for quite some time been tormented by an absence of administrative oversight and was overwhelmed by amateurish people. In spite of these endeavors, OHS execution in Kenya stays a trouble, since mishaps keep on happening as some security principles are not followed. As per figures from 2003, mining, development, and transportation represent 41% of work environment mishaps in Kenya, machine administrators and constructing agents represent 28%, and different occupations represent 31% of work environment mishaps (Nyakango, 2007). Every one of this brings up the issue of what elements impact the execution of word related security and wellbeing the executives' methods in the development business to help diminish the seriousness of mishaps.

Laborers ought to be trained essential health and safety perspectives to acquire fundamental abilities and like the significance of applying information in genuine practice to defend them at work, as indicated by Muui & Kinyua, (2016). Law masters ought to be more excited about the execution of arrangements of the Occupational Safety and Health Act, 2007 and going with guidelines, and laborers ought to be encouraged fundamental security and wellbeing angles to acquire essential abilities and like the significance of utilization of information in genuine practice to protect them at work. The objective of executing OHS is to guarantee that development representatives are bound to work without making hurt their wellbeing and resign solid when they arrive at retirement age (Heyrman, 2011). Distraction with cost, quality, and practicality, just as a comparing absence of comprehension and

enthusiasm for H&S's synergistic job, are obstructions to execution (CIDB, 2009). Aside from the absence of regard for individuals who are viewed as a low-esteem asset, it doesn't give a strong establishment for H&S endeavors. Eventually, this situation depends on laborers' helpless danger appraisal and disposition, just as supervisors' negligence for security and medical problems.

Different examination on factors affecting word related wellbeing and security have been embraced, with helpless execution of word related wellbeing the board works on being faulted for building site mishaps (Diang'a, Wanyona, & Ng'ang'a, 2016; Oluoch, 2012; Nyaruai, Kinyua, & Gathu, 2016). As per (Williams, Hamid, & Misnan, 2018), the recurrence of mishaps fluctuates by area. In any case, none of these investigations inspected the utilization of word related wellbeing and security the board in building destinations, especially in Kericho County, leaving a hole in the writing that the current review will fill.

1.2 Statement of the Problem

At all levels of the development area, Jitwasinkul, Hadikusumo, & Memon (2016) tracked down a huge absence of mindfulness or need for OHS. This has been exacerbated by the development business' thoughtless demeanor toward wellbeing and security with respect to the two managers and representatives (Nyakango, 2007). The development business has drawn consideration on the grounds that, regardless of huge endeavors pointed toward lessening the quantity of passing, wounds, and diseases, it keeps on having probably the most elevated pace of deadly and genuine wounds. As per DOHSS (2011), the development business in Kenya represented 16% of deadly mishaps (40 cases recorded per 100,000 laborers) and 7% of non-lethal episodes in 2011.

As per Kibe, (2016); Otieno, Onditi, & Monari, (2019), absolute word related consumptions for 2016/2017 were £15.0 billion, split 13:7 between weakness and injury costs. This clarifies why word related wellbeing and medical problems have never been as noticeable in the considerations of most of Kenyans. Numerous Kenyan organizations and associations are progressively keen on looking further into word related wellbeing and medical problems to keep away from the adverse consequences of successive mishaps for both the business and the representative (Nderitu, Mwaura, & Gichuhi, 2019). Accordingly, the best way to tackle this issue is to foster suitable OHS the executives' techniques (Gurmu, 2019).

Construction investment Occupational health and safety is a surefire way to enhance revenues, productivity, and employee morale while lowering turnover (Phoya, 2012). This is supported by Allan, (2009), who claims that there are three key reasons why construction accident prevention is important: It is impossible to calculate the cost of human suffering, physical agony, and handicap caused by death and disability. Aside from that, implementing OHS will assist a firm maintain its financial and economic health by preventing costs related with accidents, damage to plant and equipment, and, finally, interruptions in production flow. However, occupational health and safety practices are still ineffective in many circumstances (Neale & Waters, 2012). All of these factors combined to justify the current study's design to evaluate the adoption of OHS management in the construction industry in Kericho County, Kenya.

1.3 Purpose of the Study

The purpose of this study was to evaluate the construction industry's adoption of occupational health and safety management in Kericho County, Kenya.

1.3.1 Objectives of the study

The following precise aims guided the research:

i. To determine the impact of awareness on the implementation of Occupational Health and Safety in the Kericho County construction industry.

ii. To investigate the impact of safety rules on the implementation of Occupational Health and Safety in the Kericho County construction industry.

iii. To determine the impact of safety training on the implementation of Occupational Health and Safety in the Kericho County construction industry.

iv. To determine the impact of employers' levels of commitment on the implementation of Occupational Health and Safety in the Kericho County construction industry.

1.3.2 Research Hypotheses

The following hypotheses guided the research:

H_{01}: The level of awareness does not significantly impact on the implementation of Occupational Health and Safety in the construction industry in Kericho County.

H_{02}: Safety rules does not significantly impact on the implementation of Occupational Health and Safety in the construction industry in Kericho County.

H_{03}: Safety training does not significantly impact on the implementation of Occupational Health and Safety in the construction industry in Kericho County.

H_{04}: Employer commitment does not significantly impact on the implementation of Occupational Health and Safety in the Kericho County construction industry.

1.4 Significance of Study

This research will be able to put the importance of OHS management in the construction industry into context. The study will help contractors and subcontractors, construction industry personnel, the general public, and the government understand the importance of embracing OHS in the construction business. To the government it will put into perspective the importance of enforcing the OHS through its legislations. The study will also be a repository of literature for future scholars .The study therefore will seek to strengthen the need for embracing OHS within the construction industry to reduce the prevalence of accidents.

1.5 Assumptions of the Study

The study made the following assumptions that the respondents interpreted the questionnaires well and give accurate information, and that the instruments which were used for data collection were reliable and valid. There is also an underlying assumption that implementation of OHS within the construction industry continue to be important for accident reduction. The study also assumes that the sample size and the industry under study is representative enough for purposes of making inferences on the essence of implantation of OHS.

1.6 Scope of the Study

The study targeted registered contractors, subcontractors, employees in the construction industry in Kericho County. The Study was conducted between the period of July 2017 and April 2018.

1.7 Limitations of the Study

The data to be collected was based on subjective perspectives measurement which may compromise on the quality of information given by respondents. Some of the respondents were unable to give comprehensive facts in so far as OHS in their

organization is concerned. This required the researcher to explain the essence of accurate information for the study besides maintain anonymity so that respondents are able to give information without fear. Some of the unskilled laborers were not able to understand the language used in the questionnaires. In this regard the researcher used research assistants to help collect data from the wide geographical spread of the sites and also help interpret the questions to the respondents

1.8 Theoretical Framework

A theory is an organized system of accepted knowledge that applies in a variety of circumstances to explain a specific set of phenomenon. Thus there are a number of theories that underlie the factors influencing the implementation of occupational health and safety in the construction industry and these include:

1.8.1 Heinrich domino theory

The Domino Theory is a theory of accident causation and control proposed by H.W. Heinrich in 1932, which states that all accidents, whether at home or at work, are the consequence of a chain of events (Rahiman & Mahat, 2018).As indicated by Heinrich (1932), a "mishap" is one component in a chain of occasions that can bring about harm. The factors can be addressed as a succession of wavering dominoes; when one falls, the chain response's linkage is finished. Every one of the parts is dependent on the one preceding it (Heinrich, 1959). This is the main hypothesis in word related wellbeing and security the board. Heinrich sees five dominos: (i) lineage and social environment, (ii) personal responsibility, (iii) dangerous behavior and/or condition, (iv) accident, and (v) injury. Heinrich claims that removing a single domino (in most cases, a worker's risky behavior) stops the accident event from spreading (Othman et al., 2018).

According to Heinrich (1932), people's risky actions account for 88 percent of all accidents, unsafe actions account for 10%, and "acts of God" account for 2%. According to Heinrich's Domino Theory, accidents are caused by a series of sequential occurrences, which can be compared to a line of dominoes toppling down. When one domino falls, it sets off the next, and so on, be that as it may, eliminating a fundamental fixing (like a hazardous condition or a dangerous lead) prevents the chain response from beginning. As indicated by Heinrich (1959), hurt is the inescapable aftereffect of a bunch of occasions or conditions that happen. Heinrich's Dominos Process involves: an individual physical issue (the last domino) happens just because of a mishap, a mishap happens just because of an individual or mechanical risk, individual and mechanical perils exist just because of the shortcoming of imprudent people or ineffectively planned or inappropriately kept up with gear, flaws of people are acquired or procured because of their social climate or gained by heritage and the climate

Heinrich underlined that the emphasis ought to be on mishaps as opposed to wounds or property harm. Any impromptu, wild occasion that might bring about close to home injury or property misfortune is alluded to as a mishap. On the off chance that an individual slips and falls, for instance, a physical issue might happen, yet a mishap has happened. The unsafe lead, the mechanical or actual danger, and the components going before mishaps ought to be given the most consideration. Heinrich likewise accepted that the individual accountable for misfortune control at a partnership ought to be worried about each of the five factors, however especially with mishaps and the general reasons for those mishaps.

The remedial activity successions (the three "Es") in Heinrich's Domino Theory are: instruction, which includes preparing laborers in all parts of wellbeing; schooling, which includes preparing laborers in all parts of security; and instruction, which includes preparing laborers in all parts of security. Guarantee that inward and outside wellbeing standards are trailed by authorizing them. Controlling risks through item plan, enactment, and standard working methodology that are clung to by the two laborers and the board. Therefore, this hypothesis is appropriate since it tends to factors that impact the execution of word related wellbeing and security in the development business. The assumption of the domino theory is that accidents are the result of a series of events or circumstances. Simple Linear accidents are the result of a series of events or circumstances. Events occur in a logical order, with one leading to the next. The theory is criticized for overemphasizing on individual blame, management and organization responsibility is ignored, and there is a belief in a single cause when there may be several (Rad, 2013).

1.8.2 Psychological Risk Approach

The mental danger approach examines a singular's discernments, perspectives, conduct, and basic convictions and qualities that are consolidated in a singular's danger evaluation (Perry, 2012). To clarify hazard evaluations, the mental way to deal with hazard checks out individual intellectual view of hazard. Most psychometric exploration uncover a connection among information and hazard decisions, highlighting a multidimensional and definitely more confounded comprehension of hazard than the specialized expert's factual or actuarial idea (Breakwell, 2014). At the point when an individual makes a likelihood gauge, the person is depending on their own insight and heuristics. The center contention of this strategy is that how dangers are surveyed, judged, and passed on is profoundly reliant upon how every individual

implied in the process sees hazard. Subsequently, hazard insight is at the focal point of hazard evaluation and correspondence.

An individual's impression of the world impacts how they make decisions, dissect data, and simply decide. The impression of estimating and controlling danger, as indicated by Holt (2001), is a deciding component in these choices. As per the creators, hazard judgment starts with a subjective choice with regards to whether the danger can be constrained by human contribution.

In hazard rating investigations of lay decisions on innovation and natural risks, the level of individual danger control has arisen as a significant element. Nonetheless, the fundamental pundits of the mental way to deal with hazard have kept up with that social components impact hazard insight and have neglected to address the more extensive social settings of hazard appraisals (Renn, 2013). Hazard insight research dependent on hazard rating approaches has uncovered danger qualities that impact hazard appraisals and activities, (Slovic, 2016). These incorporate danger mindfulness—how much the peril is perceived—and individual danger control—the sum to which individual attributes and gifts can be utilized to defend the person from chances. In this review, the idea of hazard judgment is utilized to show how work force in the development area evaluate different wellbeing and security perils. The development area is intrinsically presented to an assortment of wellbeing and security concerns, and how those dangers are evaluated and imparted will be controlled by how people see those dangers.

1.9 Conceptual Framework

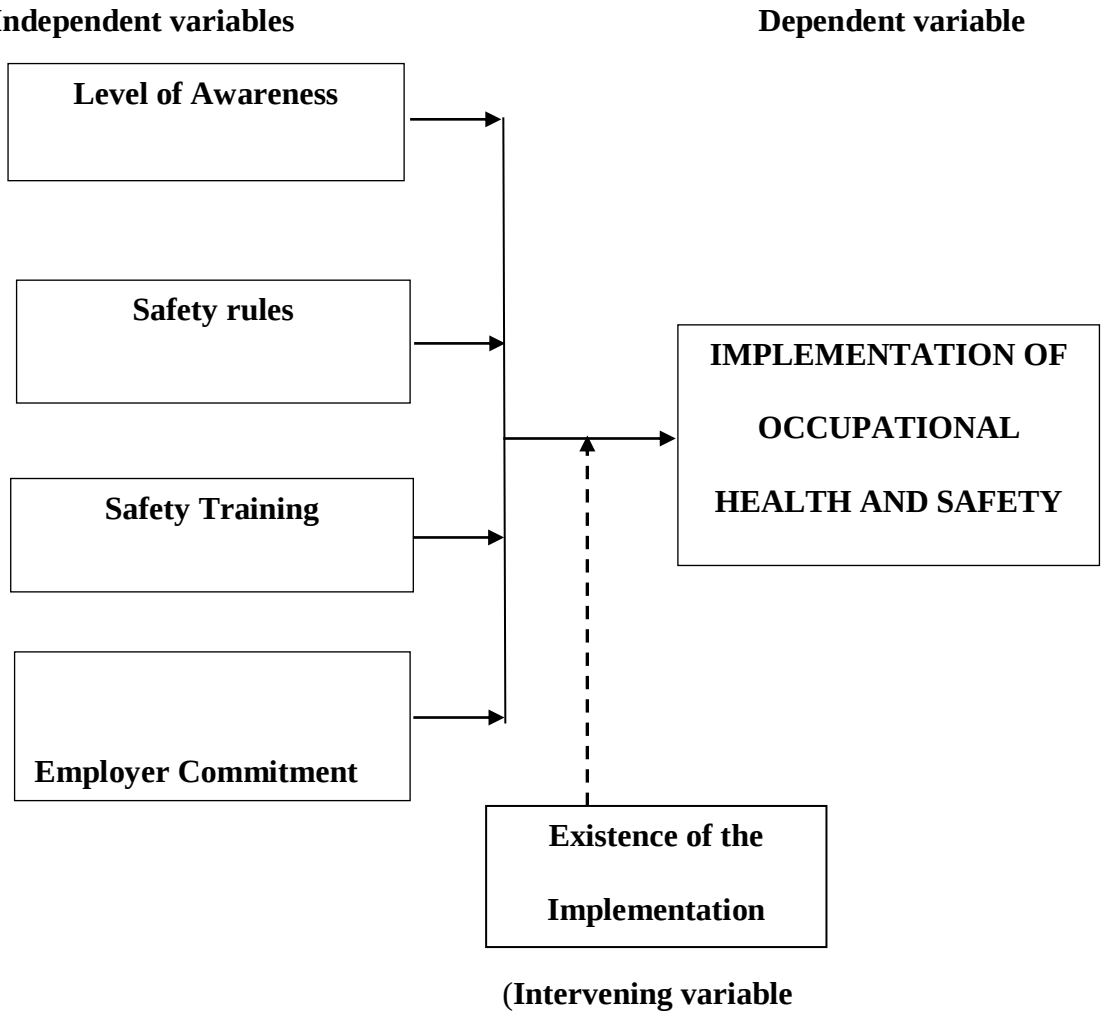

Figure 1.1: Conceptual Framework

Source: Author

The conceptual framework is a model that portrays the connection between the autonomous factors, which are components that impact OHS execution, and the reliant variable, which is word related wellbeing and security. As indicated by Neale and Waters (2012), level of information, security rules, wellbeing preparing, and worker devotion are on the whole components that impact the execution of word related wellbeing and wellbeing. The review's objectives depended on these attributes.

Worker cooperation, as per Balkin et al., (2007), is portrayed as individuals' psychological and passionate association in social scenes, which urges them to add to bunch objectives and offer liability regarding them. Interest, commitment obligation, and correspondence will be utilized to evaluate this objective.

Employer commitment is the state or quality of being dedicated by the management to ensuring that occupational health and safety measures in the construction industry are duly followed. In ensuring this the following measures can be used by managers for example by, leading through examples, participating in different health measures, encouraging their employees to take part in health programs and providing resources to enable participation (Shaw, 2010).

Safety training and induction at construction industry clearly stipulates out the rules and regulations that provide information on potential risks and hazards and how to avoid them by the employees involved (Qian and Lin, 2016). Move to another position, change in working techniques, supplemental class, and preparing furnished to manage components of wellbeing and security to representatives are a portion of the circumstances wherein a worker in the development business requires wellbeing preparing (Alhajeri, 2011).

The method involved with guaranteeing that all word related wellbeing and security guidelines are kept to the letter is known as the requirement of lawful commitments (Factories act Cap 514). Defilement and pay off, the seriousness of punishments, the force of talented individuals, and political clout (Potter et al., 2019).

1.10 Operational Definition of Terms

Accidents: are unplanned event that could have been avoided if the factors leading up to it had been addressed prior to its occurrence.

Ergonomics: is the science of enhancing product design to make it more human-friendly.

Health hazard: A substance for which there is statistically substantial evidence based on health hazards.

Health: physical and mental well-being of those who work or are influenced by their work.

Injury: is a bodily harm, wound, or damage. Accidents could be to blame.

Occupational Health and Safety: the preservation and protection of human and capital resources in the workplace.

Safety management: is a function of an organization that ensures that all safety hazards have been recognized, assessed, and adequately managed.

Safety Standards: These are government-recommended, recommendations, or steps to improve construction safety.

Safety Trainings: Training materials designed to educate occupational safety and health regulations are referred to as informally.

Safety: refers to the degree of freedom from risks or conditions that could result in death, physical harm, or damage to equipment or property.

1.9.1 Chapter Summary

This chapter has examined the background of the study, statement of the problem, purpose of the study, objectives of the study, research hypotheses, significance of the

study, assumptions of the study, scope, limitations assumptions of the study, conceptual framework and operation of terms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed concepts of previous studies on the related field as per objectives of the study. All these helped in identifying the gap and provided the way forward. Thereafter a summary was done to show how unique the study is. The empirical review has been categorized as per objectives for easy reading

2.2 Importance of Safety and Health on Construction Sites

Logical and lawful writing generally centers on answers for various issues relating to health and safety at work. Easter, Hegney & Taylor (2004) underscore collaboration as the critical methodology for mishap counteraction in construction crew. Holt, (2001) examined ergonomic aspect of laborers executing daily construction assignments. Assessment of occupational hazards as well as assurance of occupational safety at a construction site is a basic question to be analyzed. It has been evaluated that every third occupational fatality or injury occurs at a construction site. Also, in comparison to other areas of economic activities, many more violations of regulatory enactments on health and safety are registered in the construction sector (ILO., 2007). Parker et al., (2007) analyzed occupational accidents plans and propose the frameworks for improving safety. It is focused on that more assessments should be embraced to reveal decisions for additional creating guidance and getting ready ampleness of improvement workers in the space of prosperity and security (Bentley et al., 2006). Such various norms parts of peril and prosperity being developed or diversion works have been explored by (Bechal et al., 2004) and Parker et al., (2007). Likewise, any bothersome advancement event is regularly related to health and safety plans set up in technological work cards of the improvement of construction project.

When in doubt, disasters at building objections could be qualified as blemishes of the health and safety management system, which happen due to different aspect including specific, inventive, progressive and various types of factors (Dessler, 2008).

Despite the stated positive increases brought about by the construction industry, there are negative credits associated with advancement activity. Construction work is dangerous; the International Labor Organization (ILO) records no less than 60,000 harmful occurrences every year on building sites around the world, accounting for one out of every six fatal business-related accidents (Wells and Hawkins, 2014). According to the entire laborers' association, the amount is substantially higher at 108,000, with improvement being responsible for 30% of all construction -related occurrences. In the United Kingdom, for example, the Health and Safety Executive (HSE) audit report 2010/11 shows that the advancement industry answers 27 percent of fatal injuries to delegates and 9 percent of proclaimed major injuries.

With the ultimate objective of improving and safeguarding the working environment, the International Labor Organization (ILO) has convened general gatherings since around 1937, picking and taking on shows and proposals geared toward prosperity and security being established tasks. One such example is Show C167, also known as the Safety and Health in Construction Convention, 1988, which rethought and replaced the 1937 Safety Provisions (Building) Convention. This Convention establishes action plans that apply to all improvement activities (Kirombo, 2012). As required, each Member Country that affirms this show endeavors to take on and keep in power laws or rules that ensure the utilization of the Convention's courses of action through specific standards or codes of preparation, or by other appropriate procedures consistent with public conditions and practice, based on an assessment of the

prosperity and prosperity risks inferred. (Convention on Prosperity and Health in Construction, 1988).

According to Articles 8 and 10 of the show, the focal laborer for hire, or another individual or body with certifiable control over or fundamental commitment in regards to as a rule building site activities, will be in charge of arranging the supported security and prosperity measures and, to the extent that such measures are compatible with public laws and rules, ensuring compliance with such measures. Furthermore, public laws or rules will provide that workers will have the right and obligation to participate in ensuring safe working conditions to the level of their position over the equipment and procedures for work, as well as to communicate views on the working techniques used as they affect safety and health, and to follow the supported safety and health measures at any work location. (Convention on Prosperity and Health in Construction, 1988). In general, the presentation explains the preventive and safeguarding measures to the point where suitable safeguards will be taken to ensure that all workplaces are safe and secure, and that workers' safety and health are not jeopardized.

2.3 Kenya Government policy on Occupational Safety and Health

As stated in its Strategic Plan, the Ministry of Labor has been at the forefront of supporting expert issues (2008-2012.). It aims to create and carry out game plans and tasks for a particularly helpful workforce by establishing a safe working environment, progressing current concordance, effective human resource organizing and development, government-supervised retirement, value progression, and possible job creation. When it comes to understanding the significance of occupational health and safety for workers at work places, the most important course of action is to focus on practices that highlight the link between prevention and pay of word related prosperity

and prosperity opportunities. Through care creation, assessment, and cut off building, institutional and legal structures to be built up arrangement to achieve a strong and proactive occupational health and safety systems (Ministry of Labor, 2007).

While we praise the good effects of the construction industry on our economy, the plight of unprotected Kenyans who must face the hazards and perils that threaten their health and safety must be addressed with the seriousness it deserves. Despite the fact that existing institutions and codes of preparation provide direction, building laborers are passed over for recruits with breathing room to take various courses to reach their prosperity and security goals because they perform what is practically practicable (Kirombo., 2012).The current situation is made worse by an out-of-date order, a lack of controls and permission, shady practices, degradation, and basic segmentation due to a lack of personnel in the improvement business. This has resulted in 'The easygoing workforce marvels,' which, according to Njeri and Mitullah (2003), employs 75 percent of the labor force in the construction industry, but requires rule and affirmation and has limited potential in terms of capacity mobility, exploiting protection, and wealth.

The Kenya Government through the Ministry of Public Works is developing a Public Works Policy whose central objective is to enhance occupational health and safety as well as sound environmental practices in the construction industry and seek to make accountable those involved in the development of the built environment. To applause this plan , the ministry enactment of the National Construction Authority Act 2011, which will not only help to change the construction sector into a safe and secure environment, but will also bring order in the sector by getting rid of quacks and degenerate contractors (Ministry of Public Works) (eregulations.invest.go.ke., 2011).

The enactment of the OHSA, (2007) has been a step forward, and for the purpose of administration of the act, the office of Director of Occupational health and safety services has been set up in Nairobi with other 17 zonal offices across the entire country whose main function is to enhance education and training in occupational health and safety, collect and give out information on occupational health and safety, to promote occupational safety and health in all workplaces, to encourage a health and safety culture in workplaces, to conduct training for enterprises, self-employed persons, individuals and occupational health and safety personnel, and may after meetings with all the technical advisory committee, acknowledge in writing training institutions providing occupational health and safety training.

According to (Kimeto, Kiiyukia & Makhonge, 2016), there are 70 institutions promoting training of OHS. This fact notwithstanding, the government has through the Ministry of Labour, made strides in keeping with the ILO spirit of workers concern and enacted laws to promote health and safety. Government inspectors should visit firms periodically to ensure they are complying with legal requirements on health and safety practices. Inspections also occur following complaints by workers or members of the public after serious accidents (Kirombo., 2012). On finding that an offence has been committed the inspector may: Inform the employer of the unsatisfactory item and ensure a remedial action; Serve an important notice compelling positive action; Prosecute the firm before a court of law.

The OSHA, (2007), outlines the commitments and commitments of organizations and agents in terms of advancing health and safety in the workplace, and any logical conflict is considered a violation. A suitable legislative framework, a fruitful inspectorate to carry out consistency, and subject matter experts and supervisors are

necessary for these activities and strategies to be astounding in the improvement of health and safety in building obstacles. This is a big challenge to the government because of the limited capacity in as far as administration of the act is concerned, hence more occupational safety and health officers need to be trained and deployed in the field to ensure employers comply with the provisions of the act.

2.4 Empirical Review

2.4.1 Level of awareness on implementation of OHS in the Construction Industry

Safety awareness is a state where people are constantly aware of the possibility of an occurrence of injury, and go about as expected at all times (Kobes et al., 2010). This proposes (1) a steady and conscious work to think about the working conditions especially their connected risks, for example, through prosperity audits, safety inspections and sharing of safety information including means of mitigating against hazards through, for example, safety meetings and briefings, and (2) constantly behaving safely in the light of perceived risks.

Kamar, Lop, Salleh, Mamter and Suhaimi (2014) found out how knowledgeable contractors are about OSH management systems. A total of 34 class A contractors registered with Pusat Khidmat Kontraktor (PKK) in Kelantan were chosen at random. A self-administered questionnaire was used to collect data. The findings show that the majority of Class A contractors in Kelantan understand the importance of an occupational safety and health management system and that it should be implemented to achieve zero accidents and deaths on the job site. Workers are at a high risk of being exposed to noise and chemicals, but are at a low risk of being exposed to ionizing and infrared radiation. Workers, on the other hand, were found to have a high level of health and safety awareness.

Musonda and Smallwood (2008) reported the results of a study on the degree of H&S awareness and implementation in Botswana's construction industry. A survey of construction projects was done to determine the level of awareness and execution of construction H&S. On construction sites, physical observations were also made in order to correlate questionnaire results with what was observed on the ground. The research was limited to Gaborone and its near environs. According to the findings, there is a lack of H&S knowledge, H&S law is not followed, contractor management is not committed to H&S implementation, H&S management systems, procedures, and protocol are lacking, and clients and designers do not participate in H&S implementation.

Mwangi (2018) found out if government policy, communication, employee training, and organizational culture have an impact on the application of health and safety laws in Kenya's construction industry. Clients and designers are excluded from the H&S implementation process. In order to obtain the data, the researcher employed a descriptive study design. The design was chosen because it addresses issues such as how much, what, which, and who, and thus responds to the phenomenon in its current state. Data was collected using data gathering strategies such as the use of structured questionnaires to allow respondents to express their opinions. A total of 240 people were asked to participate in the survey. Tables, pie charts, and bar graphs were used to display the data analysis, which was done with descriptive tools. According to the findings, government policy has a significant impact on the implementation of health and safety regulations in the construction industry; 69 percent of respondents indicated that communication was a factor affecting implementation of health and safety regulations, and the majority of respondents indicated that communication was a factor affecting implementation of health and safety regulations. Employee training

was cited by 54 percent of respondents as a factor affecting the implementation of health and safety regulations in the construction industry, while organizational culture was cited by 77 percent of respondents as a factor affecting the implementation of health and safety regulations in the construction industry.

As shown by Hassan, (2009), care happens when an individual is satisfactorily instructed with respect to a subject that he becomes mindful of its world and its broader theme. Data, on the hand requires a theoretical or realistic cognizance of the subject. For example, data on a piece of establishment recommends that the individual could show some perception of the point by point plans of the institution. Carruthers (2011) considers data a 'more grounded' thought than care since it is possible to show care without having significant data on a theme, but not the reverse way around.

Eyiah, Kheni and Quartey (2019) looked on the efficacy of occupational health and safety laws and regulations in Ghana's construction industry, as well as the factors that influence them. 49 stakeholders from four relevant groups; regulatory institutions, consultants, contractors, craftsmen, and laborers; were interviewed face to face. The study's findings imply that the current legislative and regulatory framework for occupational health and safety is barely functional. Stakeholders were aware that some rules and regulations existed, but they were unable to identify the exact legislation and their substance. As a result, irregular compliance is discovered. Negligence and lack of focus for occupational health and safety, lack of training, and lack of finances for occupational health and safety are some of the primary recurring problems affecting the effectiveness of occupational health and safety legislation and regulations.

Chaswa, Kosamu, Kumwenda and Utembe (2020) determined risk perception and its affecting factors among Malawian construction workers Three specific construction

dangers, as well as the risks connected with them, were chosen. Working at height (WAH), manual handling of loads (MHL), and "high workload or great pressure to be more productive (HWP)" were among the dangers. A total of 376 people were sampled in this investigation. The primary impacting factors among the independent variables were determined using univariate analysis, factor analysis, and multiple linear regressions. Workers were aware of the risks they faced at work, according to the study. The majority of respondents rated the risk of WAH, MHL, and HWP as extremely high (62.7 percent, =8.80 1.95); (48.5 percent, =8.10 2.38); and (57.9%, =8.49 2.22) accordingly. Six characteristics were found as variables in the study that had a significant impact on workers' risk perception (p 0.05). "Avoidability and controllability," "expert knowledge," "personal knowledge," "education level," and "age" were among the factors.

Beyene, Tetemke and Yetum (2019) determined how well workers were aware of occupational hazards and how well they followed safety precautions. Methodology. Between February 25 and March 10, 2013, welding factory workers participated in an institution-based cross-sectional study. The researchers used a standardized and pretested questionnaire to obtain data from 278 workers who were chosen by simple random sampling. The SPSS version 16 statistical package was used to enter and evaluate the data. The influence of the independent variables on the dependent variables was determined using logistic regression analysis. Result. One hundred thirty-five percent (51.9 percent) of respondents were aware of workplace dangers, and 225 (86.5 percent) of workers utilized PPE. Employment experience, nature of work, safety training, work regulation, and guideline all had a strong relationship with the knowledge of respondents.

Prosperity and prosperity the chiefs is important and ought to be applied in building site. Neglecting prosperity can achieve setback and clinical difficulty which achieves hardships of advantages just as incapacitated individuals the association. Also, giving an ensured and strong workplace is perhaps the best technique for holding down the cost of doing improvement business. Incidents make mishaps for exercises and errand assumptions just as directly and indirectly achieve costs (Bakri et al., 2006). According to Master Plan for Occupational Safety and Health in Construction 2005-2010, the amount of fatalities experienced in the improvement business is upsetting. Out of the completely out of 73,858 current disasters offered an explanation to SOCSO persistently 2003, 4,654 were recorded in the improvement business. From this figure, essentially 2.0 percent or 95 cases achieved demise, while 12.2% or 566 cases achieved enduring ineptitudes. There many issues drew in with executing prosperity and prosperity the board being developed undertaking. For all intents and purposes all of the word related injuries are preventable through measures including built up health rules, safety planning, better masterminding and planning controls, care, and coordinated effort among industry accomplices. Such undertakings should focus in on high-peril locales for advancement workers (Kamar et al., 2014)Besides that, tries to assemble regard for supervisors, agents and the general populace on the prerequisite for a secured workplace with no prosperity not set in stone undertakings and the interest of different social occasions. Effective safety should be refined when there is a suitable organization of the correspondence between mechanical systems and people. Disasters in the workplace do happen when "people" parts will overall take part in secured and perilous direct according to their interpretation. The incredible motivation of safety culture is the affirmation that viewpoints and practices of delegates are critical to safe direct working (Hassan, 2009)

Sidi Kerir Petrochemicals Company's occupational exposures and health and safety knowledge were assessed by (MY & HM, 2012). Methods and Materials used to measure occupational exposures and worker understanding of health and safety, a site survey and analysis for the target company, as well as a review of the production process, were carried out. A questionnaire sheet was used to assess awareness during the research. Workers are exposed to significant levels of noise and chemicals, but low levels of ionizing radiation and infrared radiation, according to the findings. Workers, on the other hand, had a high level of health and safety awareness.

Tetemke and Yetum (2019) assessed workers' level of awareness towards occupational hazards and their adherence to safety measures. An institution-based cross-sectional study was conducted from February 25 to March 10, 2013 among welding factory workers. The study included 278 workers selected by simple random sampling, and data were collected by using structured and pretested questionnaire. The data were entered and analyzed using SPSS version 16 statistical package. Logistic regression analysis was carried out to found the effect of the independent variables on the dependent variables. One hundred thirty-five (51.9%) respondents had knowledge on occupational hazards and 225 (86.5%) workers used personal protective equipment’s. Variables such as work experience, work type, safety training, work regulation, and guideline had significant association with the knowledge of respondents

Thoughtfulness regarding laborers for enlist on Occupational Health and safety (OHS) the board systems moreover one of critical things to be consider to guarantee all of undertakings ought to be conceivable viable with close to no issues, for instance, setbacks and wounds at building site. The shortfall of knowledge of task laborers on

Occupational Health and safety (OHS) the board systems being developed fit add to the incident at building site. Countless the injuries at the workplace are a quick outcome of the attitude and exercises of the real particular (Hassan, 2009). Other than that, the high speeds of injury are chiefly a direct result of deficient or non-presence of an OHS management systems. Various occupational incidents and injuries are a result of a breakdown in the existing OHS management systems. (Zolfagharian and Irizarry, 2014). Due the above problems, this research will be done to study the level of awareness of contractors on Occupational Health and Safety (OHS) management systems in construction industry. Many occupational health and safety professionals believe that the application of effective occupational health and safety management systems will lead to a better OHS performance (Mohammadfam et al., 2017).

Ahmad (2017) conducted a study on Awareness of workplace hazards and preventive measures among sandstone mineworkers in Rajasthan, India. A cross-sectional study of 218 miners was done. Face-to-face interviews were employed to present a standardized semi-structured questionnaire to each respondent. The frequency distributions and relationships between variables were visualized using descriptive statistics and the Pearson chi-square test. Almost all respondents (93.6 percent) were aware of at least one hazard in the mining industry, but none had attended a recent (within one year) health and safety training session. However, just 74.3 percent of mineworkers were aware of the danger of damage and exposure to crystalline silica dust (40.4 percent). Although a large number of mineworkers were aware of PPEs (87.6%), only 16.5 percent of them employed them while on the job. The dust protection mask was the sole PPE cited by mineworkers. The usage of dust masks was linked to the occurrence of at least one occupational accident throughout working life, while work-related diseases were linked to a lack of education, being underweight

(BMI 18.5 kg/m^2), and smoking. There was a link between being aware of occupational hazards and being younger. less than 60 years old, 30 years old when they first started working in mines, 8 hours of work every day, and no access to drinking water Failure to wear personal protective equipment (PPEs) at work was statistically related with belonging to scheduled castes or scheduled tribes, a shorter distance from house to workplace (13 km), fewer hours worked per day (eight hours), and a lack of safe drinking water.

Mojapelo, Mafini and Dhurup (2016) found out how employees in the steel sector in South Africa feel about occupational health and safety requirements. A structured questionnaire was provided to a purposeful sample of 165 employees of a big steel processing plant in Gauteng Province as part of a survey. SPSS was used to analyze the data collected (Version 22.0). To achieve the study's goal, a combination of descriptive statistics and mean score analysis was used. Employees in the steel sector thought occupational health and safety standards were good in all seven occupational health and safety dimensions assessed in this study, according to the findings. (1) information and training, (2) health and safety awareness, (3) employee behavior, (4) supervisory role, (5) health and safety reporting methods, (6) workplace inspection, and (7) workplace environment are the items on the list. Among these dimensions, employees ranked safety awareness as the most important.

2.4.2 Effects of Implementation of Safety Policy on OHS

Cagno et al, (2013) emphasize the necessity for administrators to have formed security methodologies setting out OHS standards, which become the endeavor's objectives. This created game plan should be supported by the association's CEO and passed on to all personnel with the arrangement that consistence is a condition of business.

In doing OSHMS, the associations should be obliged and consistence to legitimate requirements. Various organizations have not set up comprehensive disaster expectation draws near yet rather center around growing advantage. They don't emphasize on prosperity since they don't have even the remotest clue how high the genuine cost of an incident is until it occurs (Shamsuddin et al., 2015). The association should figure and practice the Safety and Health the board systems inside the affiliation. Steady planning and guidance are as such essential to keep their understanding revived on the critical S&H issues (Kamar et al., 2014). According to Construction Occupational Health and Safety Management System (COHSMS) Guidelines to avoid and take out incident and workplace risk, the laborers for recruit should develop and execute approach for tutoring and planning of their delegates about OHS.

Prerequisite of rules is amazingly basic in ensuring the suitability of rules. As needs be, experts (Idubor & Osiamoje, 2013) feel that rules without fitting prerequisite are similar to no laws. In that Idubor & Osiamoje (2013) conjecture that shortfall of extreme execution of OHS rules enables protection from OHS rules. However disobedience to OHS rules is a huge ally of the powerless region of OHS in Kenya. Diugwu et al., (2012) stay aware of that the besieged OHS the board system in Nigeria is a result of the non-viable OHS rules and courses of action. On the other hand, it is battled that execution and consistence with OHS rules are not the autonomous steps for additional creating OHS, as additional creating various leveled culture can similarly additionally foster OHS. In any case, it is significant that the benefits of authentic approval of OHS rules are clear in countries with pivotal prosperity and security records like the UK, USA, and Germany (Umeokafor et al., 2014).

The creation lines act cap 514 was operationalised on September initial 1951 and it was the by and large definitive solicitation which managed the game plan of prosperity and prosperity work at workplaces. This exhibition included standards of general application to all cutting edge working spots. On fifteenth February, 1984, rules of explicit application to the improvement business were gazetted, the Factories (building exercises and works of planning advancement BO WEC). In 1990, the exhibition was changed to Factories and diverse workplaces act 1990 to oblige workplaces which are not handling plants. In the year 2007, it was furthermore adjusted to word related security and prosperity act (OSHA).

According to Country normal freedoms report (2011), the Directorate of Occupational Safety and Health Services is understaffed. In its fundamental course of action for the year 2008-2012 the Ministry of Labor undeniably communicates that the supported establishment level of the Directorate is 168 yet in-post there are only 79, having an effect of 112(Country normal freedoms report, 2011). This hence debilitates this division to the extent field audits.

2.4.3 Effects of Safety Training and Inductions on Implementation of OHS

The Health and Safety at Work Act requires you, as an employer, to offer information, training, and direction in order to protect your employees' safety at work (Ali, 2021). Safety training for construction industry agents clearly establishes the ideas and standards that provide information on prospective hazards and dangers, as well as how to avoid them. Training is an important part of risk management and hazard control in the workplace. There is evidence that people are most vulnerable when they first start a new job; induction training helps to mitigate this risk by exposing them to the company's culture. This is a preventative program that includes an induction training, a transfer to a new position or a change in working practices, a

refresher course, and preparation to oversee portions of health and safety to employees. (Armstrong, 2009). Safety training aims to provide participants with the fundamental knowledge and skills needed to identify safety, health, and environmental concerns, as well as establish and administer OHS policies and programs (Nnaji & Karakhan, 2020). Fire extinguishers, hand held power tools, injury management, infection control, personal protective equipment, safety awareness, and working at heights are all common subjects to address in a safety induction.

Preventive training getting ready and enrolling techniques in the workplace are powerful tools for preventing workplace mishaps because they instill a good prosperity and security culture in employees. All new laborers should receive a thorough acknowledgement as soon as possible after starting a new site so that they are informed of potential dangers and directed on the most effective technique for avoiding them. Dealing with hazardous equipment, working with unsteady materials, or simply putting your body through labour and tension could result in an improvement disaster, (Hughes and Ferrett, 2011). This is due to the fact that construction deal with a large number of risks, increasing the chances of an accident as a result of changes in work liabilities, the introduction of new work equipment, the display of a new plan of work, or even crafted by more powerless individuals such as the young and disabled.

According to Oluoch (2015), every employee should be made aware of any risks from new advancements, moving toward hazard, and ensuring that every individual used participates in the application and review of prosperity and security measures, as stated in article 6(c) of the Occupational health and safety Act, (2007), which states that: it is the commitment of the business to ensure the health and safety, and government assistance at work surprisingly in the work environment.

The organization should actively participate in prosperity and security assessments and surveys, prosperity and security discussions with social affairs, and incident, ongoing infection, and scene assessments. Managerial and board planning will play a critical role in avoiding common regulatory dissatisfactions, such as the absence of health and safety care, necessity, and progress, the absence of oversight and correspondence with agents, and the absence of appreciation of the supervisor's level of commitment (Shamsuddin et al., 2015).

Agents embrace their situations in a secure manner thanks to unambiguous occupation planning. Skill planning can be directed towards 'working' or 'instrument compartment getting ready' to cover topics such as emergency tactics, the use of personal protective equipment (PPE), and more dangerous job practices. Prosperity and security are preparing for individual guarded equipment, emergency preparedness, and catastrophe course documentation (Floyde et al., 2013). A few tasks on a construction site, including as clinical guidance, fire aversion, forklift truck driving, overhead crane action, system assessment, and legitimate prosperity and security surveys, necessitate master preparation.

New delegates should be given selection planning to overhaul their care concerning the affiliation's prosperity and security system, the affiliation's accident investigation procedures, the affiliation's fire and other emergency strategies, and a brief summary of the affiliation's prosperity and security the board structure, and laborer commitment in terms of prosperity and safety (Akpan, 2011). A significant point of view to be brought to the attention of the workers is the widespread use of disciplinary procedures, to the point where a particularly authentic mishap is followed by some form of disciplinary action or discipline.

In his article, 'Chaotic Construction Workers,' (Murray, Langford, and Fisher, 2002), cited in Kirombo (2012), He goes on to say that such perceptions are known to have harmed the advancement industry's image and may have caused large segments of the development workforce to be disparaged, causing them to abandon their projects.

Abaya and Ondieki (2021) investigated how training affects workplace safety and health compliance in building projects in Embakasi South, Nairobi City County, Kenya. The researcher was directed by the Systems Theory to investigate the interrelationships between the systems in the building industry and how they influence the application of OHS guidelines. Journals, books, and digital archives were used to gather secondary data. The respondents were given questionnaire tools to fill out in order to obtain primary data. The study addressed 400 construction employees in Embakasi South's 20 registered sites. The researcher utilized purposive simple random sampling to arrive at 10 active construction sites, from which he carefully picked four respondents from each of the ten sites, totaling 40 respondents. The responder was given 40 questionnaires, which were all filled out and returned to the researcher, resulting in a 100% instrument return rate. The findings revealed that employees' induction and degree of education have a greater impact on the construction project's occupational safety and health compliance.

Nkomo, Niranjan and Reddy (2018), investigated how effective health and safety training is at reducing injuries and improving forestry workers' knowledge, attitudes, and perceptions about safety in Kwa Zulu Natal (KZN), South Africa. A descriptive cross-sectional study of 300 harvesting contract workers at a forestry company in KZN was done. A questionnaire was given out to evaluate the effectiveness of health and safety training. Additionally, from 2009 to 2013, a retrospective evaluation of the injury registry and medical data of employees who suffered work-related injuries was

undertaken. According to corporate injury data for harvesting contractors, there were 68 lost-time injuries following the start of training. Injuries from slipping, tripping, and falling were the most common, especially among manual harvesters. Males, those under the age of 40, and those with less experience had a higher risk of occupational injury. The majority of participants demonstrated adequate safety knowledge and were able to apply what they had learned in class. The health and safety training program was effective in lowering injuries and raising worker awareness of and responsibility for health and safety.

Makhamara and Simiyu (2016) determine the impact of occupational health and safety on organizational performance in Kenya's industrial sector, using Kapa Oil Refineries Limited as a case study in Nairobi County. The study was conducted using a case study format. The study drew a sample of 100 respondents from a population of 2000 employees in the Kapa oil refineries, representing 5% of the target demographic. Top management m, middle management, and lower management were all involved. A stratified sampling strategy was used to pick the sample. The researcher used a questionnaire to collect primary data, while secondary data was gathered from existing literature related to the current research issue. Through the SPSS Version 22 computer program, quantitative data was analyze and using descriptive statistical tools such as frequencies , percentages, mean, and standard deviation, while inferential statistical tools such as correlation and regression were used to determine and explain variable relationships. A correlation analysis found a weak positive association between Kapa Oil Refineries Limited's health and safety training and performance. According to regression analysis, health and safety training accounted for 52.7 percent of the variation/ in organizational performance.

Clarke and Flitcroft (2013), gathered baseline data on a variety of safety measures from a group of ten organizations (seven SMEs and three major corporations) in the manufacturing, construction, chemical, and service industries in the north west of England. All of the participating companies had training interventions created and implemented. Employee motivation, safety knowledge, safety behavior, safety perceptions, and objective reports of minor injuries were measured at two time points: 12 months and 24 months after the interventions were implemented. Managers' opinions of safety and leadership styles were also evaluated. Accidents were dramatically reduced (by 22% on average) and the safety atmosphere improved significantly over time, according to the study. After 12 months, there was a significant improvement in safety communication, training, safety systems, work environment, and work pressure, which was maintained at 24 months. The interventions had the biggest influence on the working environment. The key psychological mechanisms were an increase in employee; safety participation and an increase in employee motivation. The initiatives had a considerable n influence on business safety culture and productivity, according to managers and employees in SMEs and big organizations across industries. Based on the study's findings, best practice recommendations included tailoring training interventions to the company's individual training needs.

Molewa et al., (2021) evaluated OHS practices among government mortuary personnel in Gauteng province. A cross-sectional descriptive study design was undertaken between the years 2017 and 2018 and revealed n that accidents were greatly reduced (by 22%). In Gauteng Province, 11 government hospitals were sample using a convenient sampling technique. A total of 46 employees took part in the research. Structured questionnaires and observational checklists were used to collect

data. Prior to the start of the study, ethical approval and permission to perform it were obtained. The Statistical Package for the Social Sciences (SPSS) version 25 software was used to analyze the data. Thirty-one percent (67%) of the respondents had never heard of the term "hazard." Observations revealed that 5 of the 11 facilities (45 percent) were well kept, with only 2 (18 percent) of the facilities having the requisite PPE on duty. There was no link between previous work experience and knowledge of existing threats. However, there was a strong (P0.05) link between training and following safe procedures.

Abdullah (2010) assessed the knowledge regarding current events, Practices in occupational safety and health management that can impact the establishment and execution of a successful OHS management system. Data was collected using questionnaire derived from the Safety Climate Assessment tool, which was used to determine hospital personnel' impressions of various OHS management elements and their impact on OHS performance. The data was analyzed with SPSS version 12 and AMOS 4.0, and the results were examined, with recommendations provided on how to build an efficient OHS management system in the Malaysian hospital sector. Five elements were identified as supporting the implementation of an effective OHS management system in this study, including health and safety objectives, safety reporting, management commitment, the role of the supervisor, and leadership style; however, safety training was not significant, but a lack of safety training could hinder effective OHS management. In summary, the study found that (1) management commitment, (2) health and safety objectives, (3) training and competence, (4) supervisory role, (5) safety reporting, (6) leadership style, and (7) safety incidents: workplace accidents and injuries were all significant findings. All aspects of OHS

management, as well as one dependent variable, safety incidents, appear to be crucial in ensuring good OHS procedures in the workplace.

2.4.4 Effects of Commitment of employer on Implementation of OHS

In order to give occupational safety and health a higher priority within the company, it is helpful for managers to change their focus from problem solving to proactive behaviour. The aim should be to provide a workplace that is not only offering safe and healthy working conditions but also going beyond legal requirements by promoting health and healthy behaviour. Such a holistic approach includes action from managers in different areas. The main idea behind this approach is to conduct organizational, environmental and individual measures enabling healthy choices and encouraging personal development (Sallis, Owen & Fisher, 2015).Work affiliation can for example be improved by allowing the opportunity of profound learning inside the work. Normal measures require the manager to coordinate measures for making a nice gathering air and engaging social assistance between accomplices. Backing of agents is a huge viewpoint to ensure extraordinary affirmation of such measures.

Managers can increase involvement and acceptance by leading through examples, participating in different health measures, encouraging their employees to take part in health programmes and providing resources to enable participation (Shaw, 2010). It is required that management does not only assure a smooth implementation of the measures but further demonstrates active involvement to encourage staff to participate in the creation and implementation of the programme. The continued commitment from all sides is needed to assure that holistic prevention and promotion concepts are successful. Management commitment is crucial in this process to avoid conflicts between the health promotion measures and other organizational management practices (Taylor, Lynn & Bartlett, 2018). (Taylor, Lynn and Bartlett, 2018). The

extensive view on health progression inside the work space and the critical occupation bosses have inside this technique has been taken care of in various records on EU level. The quality models for workplace prosperity progression set by the European Network for Workplace Health Promotion point out the meaning of regulatory direct in executing prosperity headway at work: "The accomplishment of work space health headway depends upon its being viewed as fundamental authoritative commitment, and, its being fused into existing structures". The EU-OSHA in like manner highlights the meaning of the leaders obligation regarding the accomplishment of workplace prosperity progression program, (O'Donnell, 2015).

Mental health promotion at work gathered special attention in the last years and is now seen as part of a holistic approach on enhancing health and wellbeing at work. Leadership comprehension of the importance of employees´ mental health and wellbeing is of crucial importance. However, some facts show that managers tend to underestimate the prevalence of mental health problems at work Shaw, (2010).A study in the UK showed that more than half of managers participating stated that none of their workers suffered from any mental health problem. However, current estimates are closer to 1 in 5 workers having mental health problems. The lack of awareness on psychosocial risks is one of the major barriers for occupational safety and health management to deal with such issues. The main barrier is however the sensitivity of the issue and a certain respect to tackle psychosocial aspects at work. Only 25% to 30% of establishments report on having procedures in place for dealing with psychosocial risks at work (Vargas et al., 2014). Having such techniques set up extends the probability that moves were made over the latest three years to deal with those risks. The meaning of chief's commitment to an especially sensitive subject is

basic concerning the request on the most ideal way of outclassing further foster workplace prosperity and flourishing of employees (Lam, 2014).

A public open detail (PAS) on heading on the organization of psychosocial chances gives a framework of key guidelines on mental peril the board (Shaw, 2010). The basic points of view concerning the situation of power regarding the key guidelines are recorded: Good psychosocial peril the board pays off and is satisfactory business. Chiefs who approach psychosocial perspectives genuinely and put resources into chipping away at the work space in a thorough way will get extraordinary business results, Worker and the board commitment to the subject is imperative to guarantee accomplishment of the activities taken. As communicated over, the chief's obligation is affecting the achievement of any word related prosperity and prosperity program running in the workplace, a participative philosophy is required. Administrators should complete measures to incorporate workers as they are the ones with the most capacity on their own work and thus acknowledge best on the most ideal way of taking care of hardships that occur, Managers ought not assess the basic establishments of issues instead of simply taking shallow measures, for instance, endeavoring to change laborer lead.

Evidence instructed practice is required and essential loosened up parts should be uncovered to find and abstain from the establishments of issues, Managers ought to guarantee that psychosocial perspectives at the work space are associated with the association system. They are the basic individuals for showing their commitment to the framework by going about as shown by the norms put down, there is acceptable data on the organization is required regarding the matter to ensure a particular ability in organization on the most capable strategy to deal with these midway very fragile issues.

Incredible drive in OHS and hence extraordinary word related prosperity and security standards inside an association help with isolating the best performing endeavors from the rest, (Inouye and Kerper, 2015). Associations showing brilliant OHS leadership obligation can be seen by safer and better working conditions, by delegates who are sure and gifted in their work, by practical OHS techniques set up and followed by all staff and by individuals and gatherings saw and made up for their success (Da Silva and Amaral, 2019). Such solid culture totally maintained by the organization on all levels prompts a steady OHS improvement. Thusly, the going with pays off to the association: diminished burden nonattendance, overhauled handiness, less work setbacks, less word related afflictions and business related ailments, higher motivation and lesser turnover(Golden, 2012).

For little and medium estimated tries, explicitly, a splendid OHS structure and the chiefs can help when endeavoring to find new customers. Some enormous associations recently set high prosperity and security standards moreover for their laborers for recruit and subcontractors. For example, BASF in Germany is only working with subcontractors being OHS affirmed (Zimara and Eidam, 2015).

The objective of the survey was to choose how much supervisors have executed Occupational Safety and Health rules at their work spaces. Not actually settled forever the activities affiliations have set up at their workplaces to agree to the word related security and prosperity rules. The audit relied upon a general population of 2168 enrolled workplaces in Nairobi, of which an illustration of 112 was taken. The sample size was determined according to (Bartlett, 2001) table for determining sample size for a given population. The study was a survey design and primary data was collected using questionnaires. The data was analyzed using descriptive, factor and regression analysis. The elements used to determine the extent of compliance with occupational

safety and health regulations at workplaces were categorized into five factors (independent variables) namely; safety, hygiene, emergency fire protection and health regulations.. Ayubu (2010) laments that in Kenya audit and appraisal of work spaces by word related prosperity and prosperity authorities is at the level of 52.2 percent, which is low and could be possibly one of the components at risk for nonattendance of full consistence. By and large, the level of consistence with Occupational Safety and Health rules at workplaces stays at 64.49 percent. Affiliations really have an extraordinary 35.51 percent level of no-consistence which they need to manage to restrict the aftereffects of opposition.

Bayram (2018) looked into the link between management commitment to OHS, employee satisfaction, and safety performance. Data was obtained from 171 companies in Turkey for this study, which was then analyzed using exploratory factor analysis (EFA) and structural equation modeling. Employee satisfaction is positively influenced by management commitment to OHS, and employee contentment has a direct impact on safety performance. In addition, management commitment to OHS had an indirect impact on safety performance through employee satisfaction.

Nderitu, Mwaura and Gichuhi (2019) determined the impact of management commitment on the application of Occupational Health and Safety policies in Kenya's water and sanitation companies, based on a study of water and sanitation companies in Nyeri County. The study was founded on two theories: the Leader-Member Exchange Theory and Bourgeois and Brodwin's Five Models of Strategy Implementation. The target group included 474 employees from Nyeri County's water and sanitation companies. A random sampling technique was used to choose a sample of 243 respondents from this demographic, but only 188 respondents filled out and returned legitimate questionnaires, giving the study an 80 percent response rate. To

present and evaluate the data, the study used both descriptive and inferential statistics. Descriptive statistical techniques such as frequencies, percentages, mean, and standard deviation were used to assess quantitative data, while inferential statistical tools such as multiple regression were used to discover the link between variables. The study found that there was a statistically significant positive association between management commitment and implementation, with management commitment accounting for 27.9% of the unit change in OHS policy adoption.

2.5 Summary of Literature Review

As demonstrated by (Yang, 2004) there is an affinity to blame external components for the defenseless security record, factors, for instance, the transient thought of the business, the all-out carelessness for prosperity of its delegates, the persistently changing danger as the endeavor progresses, and the need to use somewhat completed very strong plans or a regularly changing brief stage to will work at a more huge level. Regardless, HSE's appropriation, Black game Construction deduced that 90% of the accidents were preventable and that for 70% of them, movement by the leaders may have saved lives (Allan, 2009).

The advancement business really adheres to its shameful circumstance as the cutting edge region responsible for more word related injuries and fatalities than any other (Coble, 2000). According to Eurostat, improvement is the most hazardous line of land-based work in the United States and Europe. In a huge piece of North America and Europe, the fundamental kind of work that is more dangerous than improvement is fishing. In the European Union, the lethal accident rate is just about 13 experts for each 100,000 as against 5 for each 100,000 for the whole region ordinary (Source: Eurostat).

In England, the advancement business has defenseless disaster record. Figures conveyed in 2021 showed that the speed of deadly injury per 100,000 workers used in the guideline business, the improvement business addressed 39% of the destructive injuries. From the amount of deadly injuries to workers by crucial industry bundle, 2020/21 period and yearly typical for 2016/17-2020/21 period improvement industry addressed 36% driving various regions like cultivation and officer administration which was at risk for 34%. In any case similarly as work status by industry, the degree of destructive injuries to agents and the autonomously utilized moves broadly, .the fatalities in the advancement addressed 35% when stood out from 9% in the gathering industry. (HSE, 2021). Setbacks in this way are clearly screwed up with respect to the degree of people used. As shown by Tam (2004), research done shows that a significant part of the setbacks are avoidable and many are addressed by the organization dissatisfaction. As shown by FISE 2010-2011 report, in UK, there have been basic abatements in the number and speed of injury all through the latest 20 years or more. Coincidentally, improvement remains a high risk industry. In spite of the way that it addresses just around 5% of the delegates in Britain it really addresses 27% of deadly injuries to laborers and 9% of definite major injuries. In Kenya the National Profile on Occupational Health and Safety (2013) recognizes the Constitution of Kenya as the superior law, and builds up the system for any excess laws (MOH., 2014).According to Ayubu (2010) relationship in Kenya really have an uncommon 35.51 percent level of no-consistence which they need to manage to restrict the results of disobedience.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the road map or the methodology used in undertaking this study which included: the research design, study area, the target population, sampling frame, and the sampling techniques used to get the sample size. It gives the data collection instruments and procedure of its administration, and shows the validity and reliability of the instrument used, Data analysis method and presentation techniques and Ethical considerations.

3.2 Research Design

The study adopted a quantitative research design which seeks to describe a unit in detail, in context and holistically. Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternative knowledge claims (Apuke, 2017). It is also used when collecting information about people's attitudes, opinions habits or any of the variety of education or social issues (Kombo & Tromp, 2011). The design was appropriate because its objectivity is critical in collecting data on predetermined instruments that yield statistical data that can be used to make general comments regarding factors affecting the implementation of occupational health and safety management in the construction industry in Kericho County.

3.3 Study Area

The study was conducted in Kericho County, one of the 47 counties of Kenya. It has a population of 752,396 (2009 census) and an area of 2,111 km^2. The county is located about .366667°S 35.3°E.The county has six constituencies which are Ainamoi, Belgut, Bureti, Kipkelion East and Kipkelion West Constituencies. The county has

30 wards. The researcher believe that the study area will give a wide range and varied views of the problem under study, however it should be observed that the choice of the area of study does not render other parts of the country less significant. The choice of the area of study also is guided by the need for maximum utilization of most likely available resources in terms of time, human resources and lastly by finances (DeFond & Zhang, 2014).

3.4 Target Population

The study targeted employees of public funded building construction projects in the county. According to records from county works office Kericho County. The total number of Public funded building construction projects which are on course are on average of 8sites per ward. There are 30 wards in number .According to the clerk of works report in Kericho county works office; these sites have an average of 20 construction workers grouped into foremen, skilled labourers and unskilled labourers. The total target population therefore was 5160 workers.

Table 3.1: Target population

Groups	Target population
Ainamoi	920
Belgut	810
Bureti	665
Kipkelion East	932
Kipkelion West	838
Sigowet–Soin	995
Total	5160

Source: *Kericho County Works office (2016*)

3.5 Sample Size and Sampling Procedures

3.5.1 Sample size

A sample size refers to the number of people in the respondent group determined by the scope of the research (Boddy, 2016). According to Choy (2014) Sample frame is

the number of population participants and how this is accessed. In this study the Sample size was 361 which was determined by use Krejcie and Morgan Table (1970) to calculate the sample size.

3.5.2 Sampling technique

The study adopted a cluster random sampling technique. This sampling technique aims at selecting groups that display variation on a particular phenomenon (Collis & Hussey, 2009). In this case, the county was divided into groups (6 Sub Counties) which included Ainamoi, Belgut, Bureti, Kipkelion East, Kipkelion West and Sigowet–Soin after which random sample within these groups was selected. The size of each group was determined through proportional allocation. The method involved selecting at random the samples from clusters (sub counties) (a sampling frame) the required number of participants (Frazer & Lawley, 2000). The sample size was distributed proportionally according to Neyman's allocation formula (Carfagna Arti 2007) as indicated below.

$$n_i = \frac{n_i \, x \, n}{N}$$

Where,

n_i- The sample size for cluster i,

n - Total sample size,

N_i -The population size for cluster i,

N - The total population

As a result, distribution was carried out in the following manner: respondents were chosen using simple random sampling.

Table 3.2: Sampling Frame

Group	Target population	$n_i = (N_i X n)/N$	Sample size(n)
Ainamoi	920	(920/5160)x361	64
Belgut	810	(810/5160)x 361	57
Bureti	665	(665/5160)x 361	46
Kipkelion East	932	(932/5160)x 361	65
Kipkelion West	838	(838/5160)x 361	59
Sigowet–Soin	995	(995/5160)x 361	70
Total	5160		361

A sample size of 361 respondents was used for this survey consisting of foremen, skilled and unskilled labourers.

Table 3.3 Table of foremen, skilled and unskilled

Group	Foremen	Skilled	Unskilled	Totals
Ainamoi	6	25	33	64
Belgut	5	22	30	57
Bureti	4	15	27	46
Kipkelion East	7	23	35	65
Kipkelion West	5	24	30	59
Sigowet–Soin	8	24	38	70
Total	**35**	**133**	**193**	**361**

3.6 Data Collection Instrument and Procedures

A structured and pre-tested questionnaire based on the specific objectives was used to gather primary data quantitatively. A pre-test of the questionnaire was conducted by using a panel of colleagues familiar with the research purpose and did not take part in the final research for feedback purposes. Besides piloting was also conducted in Government funded projects in Uasin Gishu County. It involved 10% of the size of the sample population (Kothari & Garg, 2014). This means that 36 respondents participated in the piloting of the data instrument. The 36 respondents were selected randomly from the county funded projects.

3.6.1 Validity of Instruments

Validity is described as the extent to which the research findings accurately reflect the phenomena under study (Collis & Hussey, 2013). The internal validity was used to show to what extent the collection and analysis and interpretation of data relates with the research variables. Content validity was achieved by ensuring relevance of the research results with theoretical approaches and literature reviews (Hadi et al. 2020). To ensure content validity, the researcher reviewed the literature in order to identify the items required to measure the concepts, for example, training, and employee participation, commitment of managementand enforcement and implementation of OHS. The questionnaire were given to the supervisor who read and analyzed it to see whether the questionnaire make sense (Saunders, Lewis, Thornhill, & Bristow, 2015). Content validity was also achieved through adoption of pretested constructs in the questionnaires and Training of the research assistance on administration of questionnaires used in data collection. Careful sampling of items was ensured for their representativeness.

The amount to which the research findings accurately reflect the phenomena under investigation is referred to as validity (Collis & Hussey, 2013). Internal validity was utilized to demonstrate the relationship between data collection, processing, and interpretation and the research variables. The applicability of the research findings with theoretical approaches and literature reviews was ensured for content validity (Hadi et al., 2020). To verify content validity, the researcher looked through the literature to find the items needed to assess the concepts, such as training and employee involvement, management commitment, and OHS enforcement and implementation. The supervisor was given the questionnaire, which he read and reviewed to see whether it made any sense (Saunders et al., 2015). Adoption of

pretested constructs in the questionnaires and training of research assistants on delivery of questionnaires used in data collection were also used to attain content validity. The representativeness of the items was guaranteed through careful sampling.

3.6.2 Reliability of Instruments

If the investigation is repeated, there should be no variations in the outcomes (Collis & Hussey, 2009). The dependability of the data collected and the conclusions reported was defined by the researcher as credibility, accuracy, and consistency. Piloting was carried out on public-funded construction projects in Uasin Gishu County. The internal consistency technique was used to determine reliability in this study. Interior consistency is legitimized by the way that the singular things should all action similar builds and subsequently relate decidedly. Cronbach's alpha coefficient was utilized to decide interior consistency. The SPSS program was utilized to compute the dependability test (Statistical Package for Social Science). Cronbach's alpha coefficient is a number that differs from 0 to 1 (Serbetar & Sedlar, 2016). Scales with higher alpha coefficient esteems are more trustworthy. When in doubt, alpha ought to be basically 0.70 or higher (Matkar, 2012).

3.7 Data Analysis and Presentation

3.7.1 Data Analysis

The questionnaires were edited and coded to improve the quality of data. The process of editing involves going through the questionnaires to find out if the respondents have answered the questions and whether there is a blank response. Data was analyzed using descriptive and inferential statistics. Descriptive statistics involved the use of frequencies, percentages and mean was adopted while in inferential statistics multiple regressions was used to determine the effect of a set of independent variable

(factors)on dependent variable(implementation of OHS), coefficient of correlation using the Statistical Package for Social Sciences (SPSS)version 25.0 package.

The regression model is as follows:

$$y = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon \dots\dots\dots\dots (1)$$

Where y is Implementation of OHS, dependent variable$x$ is Factors affecting implementation OHS, β is the standardized regression coefficient.

X_1=Level of awareness

X_2=Implementation policy

X_3=Safety training and induction

X_4= Commitment of management

3.7.2 Data Presentation

Quantitative data was extracted from the questionnaires by use of frequency tables and diagrammatic presentations. Patterns of commonalities were collated, as significant differences in the range that answers were given (Brannen & Moss, 2012). Tables were used in presentation to allow for visual clarity of presented data as well as frequency tables that quantify data in line with the narration of the research results.

3.8 Ethical Considerations

The researcher sought for informed consent from respondents by making them aware that the information sought was for academic purpose. In addition, anonymity and confidentiality maintained in all respects. As an ethical measure, the researcher treated the respondents with respect and courtesy. This ensured that the respondents give candid responses to the questions. Respecting the participants rights to refusal to take part in the research and maintenance of objectivity during data collection,

analysis and report stages. The researcher obtained permission from the county government and national commission of science and technology innovation issued the researcher with a research permit as shown in Appendix V.

3.9 Chapter Summary

This chapter has examined the research design adopted , the research study area, target population , sample size and sampling techniques , data collections instrument , validity and reliability data analysis and presentation .

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents results of data analysis. As part of the descriptive statistics, the demographic variables analyzed included respondents' gender, Age bracket, Level of education and period of employment. The purpose of the study was assessment of Implementation of Occupational Health and Safety Management in the Construction industry in Kericho County, Kenya. Factors affecting implementation were analyzed and discussed in terms of as Level of awareness, implementation policies, Safety training, commitment of the organization(independent variables)and while the dependent variable was implementation of OHS. The findings of the study were presented in tables.

4.2 Response Rate

Out of a target population of 5160 employees, a sample of 361 was sampled use of Krejcie and Morgan table. Subsequently, 361 questionnaires were distributed. A total of 281 questionnaires were returned from which, 20 questionnaires were discarded for either lack of response, being improperly filled, or being incomplete. The researcher ended up with 261 usable questionnaires, which represented a response rate of 72%. This response rate was deemed adequate for external validity. According to Lewis, Hardy and Snaith, (2013) any response of 50% and above is adequate for analysis thus 72 % is even better. This reasonable response rate was made a reality after the research assistants made personal calls and visits to remind the respondent to fill-in and return the questionnaires.

4.3 Reliability Statistics

The questionnaire consisted of 24 items in which the perception of the participants was crucial. After questionnaires were filled out, the reliability of the questionnaire was determined using Cronbach's alpha. The overall reliability co-efficient of the improved instrument after the pilot survey yielded the following results: level of awareness had five items whose Cronbach's alpha was 0.799, implementation policies had five items which the Cronbach's alpha was 0.719, safety training had five items whose Cronbach's alpha was 0.800, commitment of organization had five items whose alpha was 0.737and implementation of OHS had four items with a Cronbach's alpha of 0.759. These are higher than the minimum acceptable value of Cronbach's alpha should be at least 0.70 or above (Matkar, 2012). Therefore the items were considered reliable.

4.4 Demographic Characteristics

Respondents were asked to provide information regarding their demographic profile that included; gender, Age bracket, level of education and period of work. This information was deemed relevant in the assessment of implementation of occupational health and safety management in the construction industry.

Results presented in Table 4.1, depicts that majority of the employees were males (67%) and females (33%). This suggests the construction industry in Kericho County is adhering to the principle of gender parity in employment and the decisions made by the construction are bound to be gender sensitive. The results indicated that age bracket was 21-30 (39.1%), 31-40 (33%), 41-50 (15.3%), 51-60 (12.6%).This implies that majority of respondents were above 31yrs and above. It was also found that majority of employees had secondary education and above (75.1%), this implies that majority could understand what was sought by this study and even interpret

questionnaire well. Majority of respondents had served for more than six years at 64.7%.The implication of this is that they have adequate experience to give information that the researcher can rely on.

Table 4. 1: Respondents Demographic Characteristics

Variables	Cases	Frequency	Percentage
Gender	Male	175	67
	Female	86	33
Age	21-30	102	39.1
	31-40	86	33.0
	41-50	40	15.3
	51-60	33	12.6
Level of education	Primary	65	24.9
	Secondary	119	45.6
	College	60	23
	University	17	6.5
Period of work	Less than 5yrs	92	35.2
	Between 6-8 years	81	31
	Between 9-11years	49	18.8
	Over 12yrs	39	14.9

4.5 Descriptive Statistics

Descriptive statistics used included Skewness and Kurtosis, means and standard deviations. Means and standard deviations for the independent and dependent variables were computed from the respondents' responses. The purpose of means and standard deviations was to provide a general picture of how the respondents perceive the Implementation of Occupational Health and Safety Management in the Construction Industry. Skewness and Kurtosis was used to test for the assumption of normality.

4.5.1 Level of awareness on OHS in the construction industry

The researcher sought to establish the level of agreement to various aspects of level of awareness on OHS in the construction industry. Five questionnaire items were used to examine the prevailing status of level of awareness on OHS. The findings are presented in Table 4.2.

Table 4. 2: Level of awareness on OHS in the construction industry

Statements	SA	A	UD	D	SD	MEAN	STD. DEV
High mobility of subcontracted labor reduces familiarity of workers with site environment increasing the injury rates	16.1	75.9	2.3	5.7	0	4.02	0.644
There is continuous monitoring of health and safety programs	26.4	54.0	6.9	12.6	0	3.94	0.916
Employees tend to be overconfident with their past working experience.	37.9	43.7	2.3	16.1	0	4.03	1.024
Employees have knowledge to use all equipment	4.6	59.8	12.6	23.0	0	3.46	0.896
There is effective communication of OHS policy.	9.2	46.0	5.7	36.8	2.3	3.23	1.113

The respondents agreed that high mobility of subcontracted labor reduces familiarity of workers with site environment increasing the injury rates (M=4.02 SD=0.644). Besides, a majority of the employees tend to agree that there is continuous monitoring of health and safety programs (M=3.94 SD=0.916).Some respondents also agree that employees tend to be overconfident with their past working experience (M=4.03 SD=1.024).Some respondents were almost undecided whether the employees have knowledge to use all equipment (M=3.46 SD=0.896). Lastly the respondents were

also undecided whether the There is effective communication of OHS policy (M=3.23 SD=1.113).The implications of these results is that the construction industry should maximize awareness of its workers on OHS in order to fast track implementation. These will foment the realization of accident free construction sites.

4.5.2 Implementation policies

Research objective two sought to establish the effects of implementation policies on OHS in the construction industry in Kericho County. Consequently, five questionnaire items were used to examine the prevailing status of implementation policies as presented in table 4.3.

Table 4.3: Implementation policies

Statements	SA	A	UD	D	SD	MEAN	STD. DEV
Compulsory to use personal protective equipment	48.3	21.8	12.6	9.2	8.0	3.93	1.305
Working environment always cleared and kept free from all objects that can cause harm and injury.	24.1	47.1	8.0	18.4	2.3	3.72	1.092
Policy and proper keeping of safety records	28.7	54.0	2.3	14.9	0	3.97	0.954
Standby safety rules and regulations are observed on site	3.4	49.4	11.5	33.3	2.3	3.18	1.014
There is an availability of first Aid and welfare facilities on site.	51.7	36.4	11.5	0	0	4.40	0.687

respondents agree that there is compulsory use of personal protective equipment (M = 3.93, SD = 1.305); they are also in agreement that working environment is always cleared and kept free from all objects that can cause harm and injury (M = 3.72, SD =1.092).Respondents also tend to agreed that Policy and proper keeping of safety records is achieved (M = 3.97, SD =0.954). The respondents were further undecided that standby safety rules and regulations are observed on site (M = 3.18, SD =1.014).They were in agreement that there is an availability of first Aid and welfare

facilities on site (M = 4.40, SD = .687).These findings submit that there is need for absolute adherence to implementation policies in order to realize efficiency of OHS in the construction industry.

4.5.3 Safety training and Inductions

Research objective three sought to establish the effect of Safety training and Inductions on OHS in the construction industry. The study conceptualized that Safety training and Inductions had an effect on OHS. Thus; five questionnaire items that were used to examine the prevailing status of Safety training and Inductions in the construction industry as indicated in table 4.4.

Table 4.4: Safety training and Inductions

STATEMENTS	SA	A	UD	D	SD	MEAN	STD. DEV
There is safety briefing before commencement of any new work on site.	14.9	49.1	0	25.3	12.6	3.26	1.328
Lack of training and Education will increase injury rates	34.5	35.5	10.3	16.1	3.4	3.82.	1.172
Most of the employees prefer short term trainings than long term trainings	24.1	46.0	6.9	11.5	11.5	3.60	1.284
Language barriers of the illiterate workers affect the efficiency of training	24.1	25.3	4.6	41.1	4.6	3.23	1.330
Ineffective training is a barrier to implementation of OHS	36.8	21.8	5.7	26.4	9.2	3.51	1.440

Results presented in Table 4.4 reveal that the respondents were undecided that there is safety briefing before commencement of any new work on site. (M=3.26 SD=1.328). Besides, a majority of the employees tended to agree that lack of training and Education will increase injury rates (M=3.82 SD=1.172).Some respondents also tend to agree that most of the employees prefer short term trainings than long term trainings. (M=3.60 SD=1.284).Some respondents were undecided whether language barriers of the illiterate workers affect the efficiency of training (M=3.23 SD=1.330).

Lastly the respondents tended to agree that Ineffective training is a barrier to implementation of OHS (M=3.51 SD=1.440).These findings imply that the construction industry should seriously indulge in safety trainings so that the workers can be more enlightened on safety measures to promote accident free environments in the construction industry.

4.5.4 Commitment of employer

Research objective four sought to establish the effect of commitment of employer on OHS in the construction industry in Kericho County. The study conceptualized commitment of management had an effect on OHS in Kericho County. Thus; five questionnaire items that were used as per table 4.5 were used to examine the prevailing status of commitment of management in the industry.

Table 4.5: Commitment of employer

STATEMENTS	SA	A	UD	D	SD	MEAN	STD. DEV
The risk perception and safety management commitment are directly linked to overall safety performance.	8.6	32.2	16.1	39.1	4.6	3.00	1.106
Subcontracting practices results in ambiguous or unclear responsibility for maintaining OHS	8.0	16.1	3.4	63.2	9.2	2.51	1.115
Tight projects datelines causes difficulties in adopting full safety practices	17.2	31.00	0	13.8	37.9	3.28	1.144
Because of financial pressure , small constructions firms are less likely to invest in safety and health	26.4	52.9	5.7	10.3	4.6	8.86	1.065
Powerful competitive forces in the construction industry work against OHS	12.6	48.3	20.7	12.6	5.7	3.49	1.051

Results presented in Table 4.5 reveal that the respondents were undecided whether the risk perception and safety management commitment are not directly linked to overall

safety performance. (M=3.00 SD=1.106). Besides, a majority of the employees disagree that Subcontracting practices results in ambiguous or unclear responsibility for maintaining OHS. (M=2.51 SD=1.115). Some respondents also undecided whether tight projects datelines causes difficulties in adopting full safety practices (M=3.28 SD=1.148).Some respondents tended to agree that because of financial pressure, small constructions firms are less likely to invest in safety and health (M=3.86 SD=1.065). Lastly the respondents tended to agree that Powerful competitive forces in the construction industry work against OHS (M=3.49 SD=1.051). These findings suggest that there is need for the commitment of management in all aspects of OHS for better results in the construction industry.

4.5.5 Implementation of OHS

The dependent variable of the study was implementation of OHS. The study conceptualized that there are factors that could have an effect on implementation of OHS. To this end, four questionnaire items were used to assess implementation of OHS in the construction industry as indicated in table 4.6.

Table 4.6: Implementation of OHS

STATEMENTS	SA	A	UD	D	SD	MEAN	STD. DEV
Reduction of construction site accidents	8.0	42.5	41.4	5.7	2.3	3.48	0.816
Reduction of claims and litigations	8.8	46.0	37.9	5.7	2.3	3.52	0,816
Increased environmental protection	26.4	48.8	19.5	4.6	1.1	3.94	0.864
Reduces construction projects delays	6.9	54.0	34.5	4.6	0	3.63	0.681

Results displayed in Table 4.6, reveal that respondents were undecided that the organization has realize reduction of construction site accidents (M=3.48 SD=0.816). Some respondents were of the view that there was a reduction of claims and

litigations. (M=3.52 SD=0.819). The respondents also tend to agree that there is increased environmental protection (M=3.94 SD= 0.864). Respondents also agree that there is reduction of construction projects delays (M=3.63 SD=0.681).

4.6 Predictive Analysis

To determine which among the factors predict implementation of OHS, multiple regressions was used in order to assess their effect on implementation of OHS. However, before multiple regression analysis was conducted, assumptions of regression analysis were first tested.

4.6.1 Assumption of Normality

Normality of data was assessed using Skewness and Kurtosis statistics (Cain, Zhang, & Yuan, 2017). Blanca et al., (2013) indicated that data Skewness values must fall within +1 and -1 and kurtosis values must be in the range of +3 and -3. If both tests have been fulfilled, then the data can be considered as normally distributed and no any skewed distribution.

Table 4.7: Test for Normality

	Skewness	Kurtosis
	Statistic	Statistic
Awareness,	-0.416	-0.977
Policy	-0.934	-0.236
Training and Induction	-0.709	-0.090
Commitment of management	0.370	0.589
Implementation of OHS	-0.566	-0.175

Results presented in Table 4.7 reveal that normality assumption was supported. None of the Skewness and Kurtosis values fell outside the stated range.

4.6.2 Assumption of Linearity

Pearson's product moment correlation coefficients were used to test linearity assumption. The purpose of using correlation was to identify factors that provide best predictions for conducting regression analysis. The inter-correlations among the variables are shown in Table 4.8.

Table 4.8: Test for Linearity

	Awareness	Policy	Training and Induction	Commitment of management	Implementation of OHS
Awareness	1				
Policy	0.166**	1			
Training and Induction	0.693**	0.388**	1		
Commitment of management	0.347**	0.328**	0.563**	1	
Implementation of OHS	0.595**	0.544**	0.766**	0.700**	1

****. Correlation is significant at the 0.01 level (2-tailed).**

From the results, it can be seen that correlations among the factors were significant. Correlations between Awareness, Policy, Training and Induction and Commitment of management, where r=.595**, r= 0.544**, r= 0.766**, r= 0.700** respectively were also positively and significantly related to Implementation of OHS where P<0.01. Linearity assumption was therefore satisfied. This implies that all the factors under study jointly have a positive and significant impact on Implementation of OHS in Kericho county construction industries as such it behooves the management and other players of these industries to pay high premiums on these factors among others to secure high magnitudes of OHS.

4.7 Results of Regression Analysis

4.7.1 Effects of level of awareness on implementation of OHS

The model summary presented in table 4.9 involves level of awareness (X1) as the only independent variable. The coefficient of determination (R square) of 0.354 indicated that the model explained only 35% of the variation or change in the dependent variable with the remainder of 65% explained by other factors other than level of awareness. Adjustment of the R square did not change the results substantially on the explanatory behavior of the predictor to 35%.

Table 4.9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.595[a]	.354	.351	.489	1.980

Predictors: (Constant), Level of awareness
Dependent Variable: Implementation of OHS

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.10 reveal that the F-statistic was highly significant ($F= 141.777 p<0.05$), this shows that the model was valid. .F-statistics are the ratio of two variances that are approximately the same value when the null hypothesis is true, which yields F-statistics near 1. A higher F value means that your data does not well support your null hypothesis. From the finding of the study the F statistic was highly significant hence the null hypothesis that there is no significant effect of the level of awareness on the implementation of OHS was rejected .The study therefore fails to reject the alternative hypothesis that level of awareness significantly affects implementation of OHS.

Table 4.10: ANOVA of level of awareness and implementation of OHS

Sum of Squares	Df	Mean Square	F	Sig.
33.912	1	33. 912	141.777	0.000[a]
61.950	259	0.239		
95.862	260			

Predictors: (Constant), Level of awareness
Dependent Variable: Implementation of OHS

The model significantly improved the ability to predict implementation of OHS. Thus, the model was significant.

4.7.1.1 Results of Regressions Coefficients of implementation of OHS

Results of the regression coefficients presented in Table 4.11 show that the estimates of β values give an individual contribution of a predictor to the model. The β value tells us about the relationship between implementation of OHS with level of awareness as the predictor. The positive β values indicate the positive relationship between the predictors and the outcome. The β value for level of awareness (0.595) was positive. The positive β values indicate the direction of relationship between predictor and outcome. From the results (Table 4.12) the model was then specified as:-

$y= \beta_1 X_1 + \varepsilon$……..

Implementation of OHS = 0.595 level of awareness …….

The coefficient of the variable indicates the amount of change one could expect in implementation of OHS given a one-unit change in the value of that variable, given that the variable in the model is standardized basing on the standardized coefficients. Results reveal standardized regression coefficient for level of awareness (β=0.595), implies that an increase of 1 standard deviation in level of awareness is likely to result

in a 0.59 5standard deviations increase in implementation of OHS. T-test was used to identify whether the predictor was making a significant contribution to the model. When the T-test associated with β value is significant then the predictor is making a significant contribution to the model. The results show that Level of awareness (t =11.907 p<.05),

Table4.11: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	β	T	Sig.	Tolerance	VIF
(Constant)	1.306	0.199		6.575	0.000		
Awareness	0.625	0.053	0.595	11.907	0.000	1.000	1.000

Dependent Variable: Implementation of OHS

4.7.2 Effects of implementation policy on implementation of OHS

The model summary presented in table 4.12 involves implementation policy (X2) as the only independent variable. The coefficient of determination (R square) of 0.296 indicated that the model explained only 29.6% of the variation or change in the dependent variable with the remainder of 70.4% explained by other factors other than implementation policy. Adjustment of the R square did not change the results substantially, having reduced the explanatory behaviour of the predictor to 29.3%.

Table 4.12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.544[a]	0.296	0.293	0.510	1.352

Predictors: (Constant), Implementation policy
Dependent Variable: Implementation of OHS

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.13 reveal that the F-statistic was highly significant (F= 108.860p<0.05), this shows that the model was valid. From the finding of the study the F statistic was highly significant hence the null hypothesis that there is no significant effect of implementation policy on the implementation of OHS was rejected. The study therefore fails to reject the alternative hypothesis that implementation policy significantly affects implementation of OHS.

Table 4.13: ANOVA of implementation policy

Sum of Squares	Df	Mean Square	F	Sig.
28.368	1	28. 368	108.860	0.000[b]
67.494	259	0.261		
95.862	260			

Predictors: (Constant), Implementation policy
Dependent Variable: Implementation of OHS

The model significantly improved the ability to predict implementation of OHS. Thus, the model was significant.

4.7.2.1 Results on Regression Coefficients of implementation of OHS

Results of the regression coefficients presented in Table 4.14 shows that the estimates of β values and give an individual contribution of a predictor to the model. The β value tells us about the relationship between implementation of OHS with the predictor. The positive β values indicate the positive relationship between the predictors and the outcome. The β value for implementation (0.544) was positive. The positive β values indicate the direction of relationship between predictor and outcome. From the results (Table 4.14) the model was then specified as:-

$y= \beta_1 X_1 + \varepsilon \ldots\ldots\ldots\ldots$

Implementation of OHS= 0.544implementation policy +ε …….

The coefficient of the variable indicates the amount of change one could expect in implementation of OHS given a one-unit change in the value of that variable, given that the variable in the model is standardized basing on the standardized coefficients. Results reveal standardized regression coefficient for implementation policy (β=0.544), implies that an improvement of 1 standard deviation in implementation policy is likely to result in a 0.544 standard deviations increase implementation of OHS. T-test was used to identify whether the predictor was making a significant contribution to the model. When the t-test associated with β value is significant then the predictor is making a significant contribution to the model. The results show that implementation policy (t =10.434, P<.05),

Table 4.14: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	B	T	Sig.	Tolerance	VIF
(Constant)	1.848	0.175		10.565	0.000		
Implementation policy	0.467	0.045	0.544	10.434	0.000	1.000	1.000

Dependent Variable: Implementation of OHS

4.7.3 Effects of safety training and inductions on implementation of OHS

The model summary presented in table 4.15 involves safety training and induction (X3) as the only independent variable. The coefficient of determination (R square) of 0.586 indicated that the model explained only 58.6% of the variation or change in the dependent variable with the remainder of 41.4% explained by other factors other than safety training and induction. Adjustment of the R square did not change the results substantially, having reduced the explanatory behavior of the predictor to 58.5%.

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.766[a]	0.586	0.585	0.391	2.103

Predictors: (Constant), safety training and induction
Dependent Variable: Implementation of OHS

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.16 reveal that the F-statistic was highly significant (F= 366.760 $p<0.05$), this shows that the model was valid. From the finding of the study the F statistic was highly significant hence the null hypothesis that there is no significant effect of training and induction on the implementation of OHS was rejected. The study therefore fails to reject the alternative hypothesis that training and induction significantly affects implementation of OHS.

Table 4.16: ANOVA of safety training

Sum of Squares	Df	Mean Square	F	Sig.
56.185	1	56.185	366.760	0.000[b]
39.677	259	0.153		
95.862	260			

Predictors: (Constant), Safety training and induction
Dependent Variable: implementation of OHS

The model significantly improved the ability to predict implementation of OHS. Thus, the model was significant.

4.7.3.1 Result on Regression Coefficients of implementation of OHS

Results of the regression coefficients presented in Table 4.17 shows that the estimates of β values and give an individual contribution of a predictor to the model. The β value tells us about the relationship between implementation of OHS with the

predictor. The positive β value indicates the positive relationship between the predictors and the outcome. The β value for safety training and induction (0.766) was positive. The positive β values indicate the direction of relationship between predictor and outcome. From the results (Table 4.17) the model was then specified as:-

$y= \beta_1 X_1 + \varepsilon$ …….

Implementation of OHS= 0.766 Safety Training and induction $+\varepsilon$ …….

The coefficient of the variable indicates the amount of change one could expect in implementation of OHS given a one-unit change in the value of that variable, given that the variables in the model are standardized basing on the standardized coefficients. Result reveals standardized regression coefficient for safety training and induction (β=0.766), implies that an increase of 1 standard deviation in safety training and induction is likely to result in a 0.766 standard deviations increase implementation of OHS. T-test was used to identify whether the predictor was making a significant contribution to the model. When the T-test associated with the β value is significant, then the predictor is making a significant contribution to the model. The results show that the safety training and induction (t =19.151 p<0.05).

Table 4.17: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	β	T	Sig.	Tolerance	VIF
(Constant)	1.991	0.090		12.211	0.000		
Training	0.475	0.025	0.766	19.151	0.000	1.000	1.000

Dependent Variable: implementation of OHS

4.7.4 Effects of commitment of employer on implementation of OHS

The model summary presented in table 4.18 involves commitment of management (X4) as the only independent variable. The coefficient of determination (R square) of 0.490 indicated that the model explained only 49 % of the variation or change in the dependent variable with the remainder of 51 % explained by other factors other than commitment of management. Adjustment of the R square did not change the results substantially, having reduced the explanatory behavior of the predictor to 48.4%.

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.700[a]	0.490	0.484	0.434	1.592

Predictors: (Constant), commitment of management
Dependent Variable: implementation of OHS

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.19 reveal that the F-statistic was highly significant ($F= 249.255 p<0.05$), this shows that the model was valid. From the finding of the study the F statistic was highly significant hence the null hypothesis that there is no significant effect of commitment of management on the implementation of OHS was rejected. The study therefore fails to reject the alternative hypothesis that commitment of management significantly affects implementation of OHS.

Table 4.19: ANOVA of commitment of management

Sum of Squares	Df	Mean Square	F	Sig.
47.012	1	47.012	249.255	0.000[b]
48.850	259	.189		
95.862	260			

Predictors: (Constant), Commitment of management
Dependent Variable: implementation of OHS

The model significantly improved the ability to predict implementation of OHS. Thus, the model was significant.

4.7.4.1 Result on Regression Coefficients of implementation of OHS

Results of the regression coefficients presented in Table 4.20 shows that the estimates of β values and give an individual contribution of a predictor to the model. The β value tells us about the relationship between implementation of OHS with the predictor. The positive β value indicates the positive relationship between the predictors and the outcome. The β value for commitment of management (0.700) was positive. The positive β values indicate the direction of relationship between predictor and outcome. From the results (Table 4.20) the model was then specified as:-

$y= \beta_1 X_1 + \varepsilon$……..

Implementation of OHS= 0.700commitments of management $+\varepsilon$ …….

The coefficient of the variable indicates the amount of change one could expect in implementation of OHS given a one-unit change in the value of that variable, given that the variables in the model is standardized basing on the standardized coefficients. Result reveal standardized regression coefficient for commitment of management (β=0.700), implies that an increase of 1 standard deviation in commitment of management is likely to result in a 0.700 standard deviations increase in

implementation of OHS. T-test was used to identify whether the predictor was making a significant contribution to the model. When the t-test associated with β value is significant then the predictor is making a significant contribution to the model. The results show that commitment of management (t =19.151, p<0.05).

Table 4.20: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	β	T	Sig.	Tolerance	VIF
(Constant)	1.684	0.127		13.255	0.000		
RC	0.607	0.038	0.700	15.788	0.000	1.000	1.000

Dependent Variable: Implementation of OHS

4.7.5 Factors affecting the implementation of OHS

Multiple regression analysis was used to test the formulated hypotheses. First, the model summary was analyzed to establish the strength of the conceptualized factors in predicting implementation of OHS. Results presented in Table 4.21 reveal that the four constructs namely Level of awareness, implementation of policy ,safety training and induction and commitment of management 76.4% of the variation in implementation of OHS (Adjusted R Square = 0.764).Therefore, the remaining 23.6% is explained by other factors not considered in the study.

Table 4.21: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.874[a]	0.764	0.760	0.297	1.837

Predictors: (Constant), Level of awareness, implementation of policy ,safety training and induction and commitment of employer

Dependent Variable: Implementation of OHS

Second, the ANOVA output was examined to check whether the proposed model was viable. Results shown in Table 4.22 reveal that the F-statistic was highly significant (F= 207.189p<0.05), this shows that the model was valid. From the finding of the study the F statistic was highly significant hence all the null hypotheses that there is no significant effect of all the factors under study bundled together on the implementation of OHS was rejected.

Table 4.22: ANOVA of factors affecting implementation of OHS

Sum of Squares	Df	Mean Square	F	Sig.
73.239	4	18.310	207.189	0.000[a]
22.263	256	0.088		
95.862	260			

Predictors: (Constant),), Level of awareness, implementation of policy ,safety training and induction and commitment of employer

Dependent Variable: implementation of OHS

The model significantly improved the ability to predict implementation of OHS. Thus, the model was significant.

4.7.5.1 Results on Regression Coefficients of implementation of OHS

Results of the regression coefficients presented in Table 4.23 shows that the estimates of β values and give an individual contribution of each predictor jointly to the model. The β value tells us about the relationship between implementation of OHS with each predictor. The positive β values indicate the positive relationship between the predictors and the outcome. The β value for Level of awareness (0.208), implementation of policy (0.269), safety training and induction (0.312) and commitment of management (0.364) were positive. The positive β values indicate the direction of relationship between predictors and outcome. From the results (Table 4.23) the model was then specified as:-

$y= \beta_1X_1+\beta_2X_2+ \beta_3X_3+ \beta_4X_4+\varepsilon$……..

Implementation of OHS=0.208Level of awareness + 0.269implementation of policy+ 0.312safety training and induction+ 0.364commitments of employer +ε …….

The coefficients for each of the variables indicates the amount of change one could expect in organization performance given a one-unit change in the value of that variable, given that all the variables in the model are standardized basing on the standardized coefficients. Results reveal standardized regression coefficient for Level of awareness (β=0.208), implies that an increase of 1 standard deviation in Level of awareness is likely to result in a 0.208 standard deviations increase in Implementation of OHS. Standardized regression coefficient for implementation of policy(β=0.269), implies that an increase of 1 standard deviation in implementation of policy is likely to result in a 0.269 standard deviations increase in Implementation of OHS. Standardized regression coefficient for safety training and induction (β=0.312), implies that an increase of 1 standard deviation in safety training and induction is likely to result in a 0.312 standard deviations increase in Implementation of OHS. Standardized regression coefficient for commitment of management (β=0.364), implies that an increase of 1 standard deviation in commitment of management is likely to result in a 0.364 standard deviations increase in Implementation of OHS.

T-test was used to identify whether the predictors were making a significant contribution to the model. When the t-test associated with β value is significant then the predictor is making a significant contribution to the model. The smaller the value of significance (the larger the value of t) meaning greater is the contributor of that predictor. The results show that Level of awareness ($t = 4.863$, $p<0.05$), implementation of policy ($t = 7.998$, $p<0.05$), safety training and induction ($t = 6.237$, p

<0.05) and commitment of management (t =9.796, p<0.05). These findings indicate that the predictors significantly affect implementation of OHS in construction industry. These results imply that commitment of management is most important predictor for implementation of OHS amongst the factors under study.

Table4.23: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	β	T	Sig.	Tolerance	VIF
(Constant)	0.246	0.166		1.482	.139		
Awareness	0.218	0.045	0.208	4.863	0.000	0.506	1.976
Policy	0.231	0.029	0.269	7.998	0.000	0.814	1.228
Training	0.194	0.031	0.312	6.237	0.000	0.368	2.721
commitment	0.316	0.032	0.364	9.796	0.000	0.664	1.500

Dependent Variable: Implementation of OHS

4.8 Discussion of Results

The study focused on the assessment of implementation of occupational health and safety management in the construction industry in Kenya: a case of Kericho County. In the construction industry workers who carry out task is directly exposed to its associated risks and passively exposed to risks produced by co-workers out of negligence or nature of work. Building design, materials, dimensions and site conditions are often unique, which requires adaptation and a learning curve from site to site. Injuries may occur in a number of ways and at every juncture of the process (Grant & Hinze, 2014). In this regard the current study assesed the effect of level of awareness and implementation, Implementation policies, safety training and commitment of employer on implementation of of OHS.

Objective one was to establish the effect of level of awareness on implementation of OHS. According to Widaningsih, Susanti and Chandra, (2018) the workers' work culture and less awareness of occupational health and safety (OHS) are attributed to the high accident rate. Lacks of education and training of the Occupational Health and Safety (OHS) result in construction workers' less awareness of their occupational health and safety (OHS) (Robson, et al., 2012). These arguments are underpinned by the findings of this study from which the level of awareness was found to have positive and significant correlation with implementation of OHS where r= 0.595^{**}at P<0.01.This implies that there is a simultaneous effect of all aspects of awareness creation on securing effective implementation of OHS.

Objective two was to find out the effect of implementation policies on implementation of OHS in the construction policy. According to Construction Occupational Health and Safety Management System (COHSMS) Guidelines to avoid and eliminate accident and workplace hazard, the contractors should establish and implement procedures for education and training of their employees about OHS (Mahmoud, 2009).From the study findings implementation policies positively and significantly affects the implementation of OHS in the construction industry= 0.544^{**}, respectively were also positively and significantly related to Implementation of OHS where p<0.05. The β value for implementation (0.544) was positive. This implies that implementation policies can significantly predict implementation of OHS. This finding are corroborated by the research findings of (Lingard, Cooke & Blismas, 2010; Ismail, Doostdar, & Harun, 2012). This implies that the management should should urge their employees to constantly observe safety implementation policies in order to ensure efficient implementation of OHS which can help in the mitigation of accidents.

Objective three was to find out the effect of safety training on implementation of OHS. According to Chen and Chan (2010) Preventive training and induction procedures in the workplace environment are important tools in preventing accidents at work as it helps inculcate in employees a positive health and safety culture. From the findings of the study safety training positively and significantly related to implementation of OHS where r= 0.766^{**} and $p<0.01$ with $\beta= .766$.This findings are in line with the findings of (Leiter, Zanaletti & Argentero, 2009;Mearns, Whitaker & Flin, 2003) who also found a positive correlation between safety training and occupational health and safety management.This implies that there is a need for proficiency training on some safety management practices for both employees and management of construction industry to reduce official accident rates and respondents reporting accidents thus efficient implementation of OHS.

Objective four was the effect of employee commitment on implementation of OHS in the construction industry. The continued commitment from all sides is needed to assure that holistic prevention and promotion concepts are successful. Management commitment is crucial in this process to avoid conflicts between the health promotion measures and other organizational management practices (Lucidarme, Cardon, & Willem, 2016). From the study findings employee commitment positively and significantly affect implementation of OHS where=0.700^{**} $p<0.05$. $\beta = 0.700$. This implies that there is need for the management of construction industry to enhance the commitment of both management and other staff in order to enhance implementation of OHS.

4.9 Chapter Summary

This chapter has examined the response rate, reliability statistics, demographic characteristics of the respondents, descriptive statistics, inferential statistics and discussion of results.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction to the chapter

This chapter presents summary of the findings based on the objectives of the study, conclusions of the study, recommendations based on the research findings and suggestions for further research studies.

5.2 Summary of Findings

In view of statistical results level of awareness was found to have a positive effect on implementation of OHS in Kericho County. This indicates that an increase in level of awareness of players in the construction industry capabilities makes implementation of OHS to increase. The results further suggest that amongst the variables, level of awareness significantly affects implementation of OHS. The implication of these results is that the construction industry may achieve better implementation of OHS by increasing the level of awareness amongst the players. These findings are premised on Heinrich's Domino Theory, the corrective action sequences (The three "E"s) are: Education that is training workers regarding all facets of safety and imposing on management, that attention to safety pays off and finally enforcement that ensures that internal and external rules. Ensuring that engineering that is controlling hazards through product design or process change, regulations, and standard operating procedures are followed by workers as well as management. All these can be achieved by enhancing the level awareness and possible stop gap measures to enhance implementation. Continuous awareness creation has the capacity to reduce the chances of occurrence of accidents.

Research objective two sought to establish the effects of implementation policies on OHS in the construction industry in Kericho County. Examination of the prevailing

status of implementation policies of OHS revealed that there is compulsory use of personal protective equipment , that working environment is always cleared and kept free from all objects that can cause harm and injury ,policy on proper keeping of safety records is achieved and availability of first Aid and welfare facilities on site. However there was a lamentation that standby safety rules and regulations are not adhered to strictly on site. All in all the study revealed that implementation policies were positively and significantly affected the implementation of OHS These findings submit that there is need for absolute adherence to implementation policies in order to realize efficiency of OHS in the construction industry. Construction Occupational Health and Safety Management System (COHSMS) Guidelines should be adhered to avoid and eliminate accident and workplace hazard, the contractors should establish and implement procedures for education and training of their employees about OHS. Enforcement of regulations is very vital in ensuring the efficacy of regulations

Safety trainings and inductions engender knowledge for effective implementation of OHS. safety training and induction procedures in the workplace environment are important tools in preventing accidents at work as it helps inculcate in employees a positive health and safety culture. Effect of safety training and induction as a whole has proven to be related to implementation of OHS in the work place. From the findings of this study safety training and induction was found to be significantly positively related to implementation of OHS. These findings imply that the construction industry should seriously indulge in safety trainings so that the workers can be more enlightened on safety measures to promote accident free environments in the construction industry .According to the findings training should be so effective so as to remove the barriers of effective implementation of OHS. This findings and arguments also submit to Psychological Risk Approach in averting risks.

Commitment of employer plays a pivotal role in ensuring implementation of OHS. Commitment of management enhances a positive work environment which fulfils the needs of employees to help boost their productivity which would certainly translate to offering safe and healthy working conditions but also going beyond legal requirements by promoting health and healthy behaviour. Therefore commitment of management remains most salient approach in securing high achievement of OHS implementationby being committed to the promotion of health measures, encouraging employees to take part in health programmes and providing resources to enable participation.The findings from this study showed a positive and significant correlation between commitment of management and implementation of OHS. It can therefore be inferred thatcommitment of the management remains fundamental in the implementation of OHS in the construction industry in Kericho County. The implication of this result is that organizations should give importance to Commitment of management. However there is need for securing compliance to safety policies even in tight projects datelines to reduce difficulties in adopting full safety practices even in cases of subcontracting .Commitment of management remains the cornerstone of training and inductions and awareness creation in a bid to guarantee effective implementation of OHS as such the findings of this study are predicated upon both Heinrich domino theory and Psychological Risk Approach in averting risks.

The dependent variable of the study was implementation of OHS. The study conceptualized that there are factors that could have an effect on implementation of OHS. To this end, the study revealed that there is no certainty that construction sites have realized a reduction of construction site accidents though there was a reduction of claims and litigations with regard to accidents in the construction this could be ascribed to the fact the accident were occurring but they were probably not reported.

As established from the study findings there is reduction of construction projects delays. In fine all the variables under study were established to be instrumental in achieving explicit implementation of OHS**.**

5.3 Conclusions

This study draws a variety of inferences based on its findings. The study looked at how occupational health and safety management was implemented in the construction industry in Kericho County, Kenya. The study comes to a conclusion that the level of awareness has a considerable impact on the execution of occupational health and safety management. As a result, efforts to implement would be jeopardized due to a lack of awareness.

Occupational health and safety management in the construction industry is heavily influenced by implementation policies. This supported the idea that a solid OHS policy framework is essential for successful OHS implementation.

The study also suggests that safety training and induction are critical in ensuring that OHS is implemented effectively. The fact that safety training and induction have a major impact on OHS implementation justifies this.

Management commitment is essential for effective OHS implementation. These elements, which include understudy awareness, implementation policies, safety training and induction, and management commitment, all have an impact on the implementation of OHS to some extent. According to the findings, all of the elements will have a significant impact on the implementation of OHS.

5.4 Recommendations

Based on the findings of the study and the recommendations from the literature review, it is clear that OHS implementation is critical for the health and safety of construction workers. While there are other aspects that are important for implementation, the current study makes the following recommendations based on the findings.

1. The industry should place a greater emphasis on management and employee loyalty. This necessitates workers' commitment to participate in decisions about employment and working conditions that are enshrined in OHS rules. Management commitment is generated by rewarding employees who make decisions and disciplining workers who break OHS policies.

2. All levels of staff be involved in the development of OHS rules that are consistent with the workplace's aims for efficient operation, and that these policies be acknowledged as equal in importance to the workplace's other policy objectives.

3. Employers and employees in the construction sector should be informed about their OHS rights and obligations through training and induction. Workers and non-workers receive OHS training and help from safety officials in order to improve their OHS implementation.

4. The construction company must pay for the employees' safety training because of their ability to improve OHS implementation, all of the above ideas will go hand in hand in raising awareness.

5.5 Suggestion for further Research

Several studies should be undertaken to gain a more comprehensive understanding on this theme in other contexts, future research should also include: Intervening effects of skills and government policies on the relationship between factors affecting implementation of OHS.

5.6 Chapter summary

This chapter has examined the findings in the objectives of the study, the conclusions from every objective recommendations made and area not covered by the research for further studies.

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APPENDICES

Appendix I: Letter of Transmittal

Dear Respondent

I am a student at Moi University pursuing a Master's degree in Technology Education (Building and Civil option). My research topic is ***Assessment of Implementation of Occupational Health and Safety Management in the Construction Industry in Kenya: A Case of Kericho County***. Am assuring you that the information you give will be handled with total confidence and at no time will you be required to identify yourself by name. For you to participate you must be an employee of this organization. Kindly answer all questions as clearly as possible to the best of your knowledge

Yours faithfully

Kipchirchir Philip Korir

Appendix II: Questionnaire

SECTION A

DEMOGRAPHIC INFORMATION

Instructions

Tick your answer in the appropriate box

Male ( ) Female ( )

- What is your age bracket?

21-30 ( )

31-40 ( )

41-50 ( )

51-60 ( )

- What is your level of education?

Primary ( )

Secondary ( )

College ( )

University ( )

- For how long have you worked in this organization

Less than 5 years ( )

Between 6-8 years ( )

Between 9-11 years ( )

Over 12 years ( )

SECTION B:

Instructions

In the tables below various statements are provided regarding the **Effects of level of awareness on Implementation of OHS**. Please indicate the extent to which you agree or disagree with each statement by placing a tick where appropriate using the following scale. Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree.

Part I: level of awareness on the implementation of OHS in the construction industry

Response Item	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
High mobility of subcontracted labor reduces mobility of Employees with site environment increasing the injury rates					
Employees tend to be overconfident with their past working experience.					
Employees have knowledge to use all equipment					
Employee involvement and participation					
There is effective communication of OHS policy.					

PART II: Implementation policies on implementation of OHS in the construction industry

Response item	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Compulsory to use personal protective equipment.					
Working environment always cleared and kept free from all objects that can cause harm and injury.					
Policy and proper keeping of safety records					
Standby safety rules and regulations are observed on site					
There is an availability of first Aid and welfare facilities on site.					

PART III: Safety training and Inductions on Implementation of OHS

Response Item	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
There is safety briefing before commencement of any new work on site.					
Lack of training and Education will increase injury rates					
Most of the employees prefer short term trainings than long term trainings					
Language barriers of the illiterate workers affect the efficiency of training					
Ineffective training is a barrier to implementation of OHS					

PART IV: Commitment of management on implementation of OHS

RESPONSE ITEM	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
The risk perception and safety management commitment are directly linked to overall safety performance.					
Subcontracting practices results in ambiguous or unclear responsibility for maintaining OHS					
Tight projects datelines causes difficulties in adopting full safety practices					
Because of financial pressure , small constructions firms are less likely to invest in safety and health					
Powerful competitive forces in the construction industry work against OHS					

PART V: Implementation of OHS

RESPONSE ITEM	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Reduction of construction site accidents					
Reduction of claims and litigations					
Increased environmental protection					
Reduces construction projects delays					

Appendix III: Krejcie and Morgan Table

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Appendix IV: Research Permit

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/91764/20701**

Date: **28th February, 2018**

Philip Kipchirchir Korir
Moi University
P.O. Box 3900-30100
ELDORET.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Assessment of implementation of occupational health and safety management in the construction industry in Kenya: A case of Kericho County,"*** I am pleased to inform you that you have been authorized to undertake research in **Kericho County** for the period ending **25th January, 2019.**

You are advised to report to **the County Commissioner and the County Director of Education, Kericho County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GP Kalerwa

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kericho County.

The County Director of Education
Kericho County.

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 17716

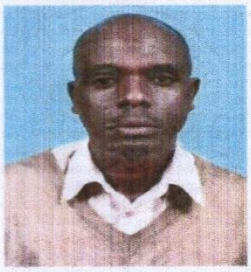
CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MR. PHILIP KIPCHIRCHIR KORIR
of MOI UNIVERSITY, 0-20200
KERICHO,has been permitted to conduct research in *Kericho County*

on the topic: *ASSESSMENT OF IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT IN THE CONSTRUCTION INDUSTRY IN KENYA: A CASE OF KERICHO COUNTY*

for the period ending:
25th January,2019

Permit No : NACOSTI/P/18/91764/20701
Date Of Issue : 28th February,2018
Fee Recieved :Ksh 1000



.....
Applicant's Signature

BP Kalerwa
.....
Director General
National Commission for Science, Technology & Innovation

Appendix V: Plagiarism Certificate

SR044

EDU 999 THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

PIPCHIRCHIR PHILP KORIR

EDU/PGT/1001/14

In recognition for passing the University's plagiarism

Awareness test with a similarity index of 04% and

Striving to maintain academic integrity

Awarded by:

Prof. John Changách, CERM-ESA Project Leader

10th /03/2022