

*Addis Ababa*  
*University*  
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**Addis Ababa University**

**College Of Business and Economics.**

**Department of Management MBA Program.**

**Practices of Occupational Health and Safety Management: Case of  
Habesha Steel Mills PLC.**

By: Endale Regasa.

May, 2018

Addis Ababa, Ethiopia

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Practices of occupational health and safety management: Case of  
Habesha steel Mills Plc.

A Thesis Submitted to Addis Ababa University School of Business and  
Economics in partial Fulfillment of the requirements for Master of  
Degree in Business Administration (MBA).

By: Endale Regasa

Advisor: Zewdie Shibre (PhD).

May, 2018

Addis Ababa, Ethiopia

## Declaration

I, the undersigned, declare that this thesis is my original work. I have undertaken the research work independently with the guidance and support of the research advisor. This study has not been presented for a degree in this or any other University, and that all the sources of materials used for the thesis have been duly acknowledged.

By: Endale Regasa

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Date \_\_\_\_\_

This thesis has been submitted with my approval as a university advisor

Advisor: Zewdie Shibre (PhD)

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## **Abstract.**

This study was about Assessing Practices of Occupational health and safety in Habesha steel mills Plc. The objective was assessing the existing OSH Management practices in the Study area, to identify key health and safety risks faced by Employees in the company and to identify challenges the organization is facing in implementing health and safety policies and strategies in the study area. Descriptive research design was used in this study. The study population considered as respondent for the study was employees and managerial personnel of Habesha Steel Mills plc. Primary data was collected using a questionnaire from 50 randomly selected workers of the company and from 8 purposefully selected management bodies. Responses were received from the entire sample population. The data was analyzed using SPSS version 20. The study revealed that though the company has a written Occupational health and safety policy and also there is program evaluation and improvement, Employee participation, Employee training and hazard prevention and control issues are not properly performed. Physical and Ergonomic hazards are the two major Occupational risks in the company. Insufficient budget and poor working environment are among the challenges to proper implementation of Occupational policies and strategies. Finally the researcher forwards appropriate recommendation with respect to identified gaps.

**Key words:** Occupational Hazards, OSH Management system.

## **Abbreviations**

ILO	= International Labor Organization
MOLSA	= Ministry of Labour and Social Affairs.
OSH	= Occupational Safety and Health.
OHS	= Occupational Health and Safety
OHSMP	= Occupational Safety and Health management practice
OSHMS	= Occupational Safety and Health and Management System
PLC	= Private Limited Company
WHO	= World Health Organization
WHO	= World Health Organization.

# Chapter One

## Introduction.

### 1.1. Background/Rationale of the study.

Human resource management is a strategic and coherent approach to the management of an organization's most valued assets- the people working there, who individually and collectively contribute to the achievement of its objectives. The proper implementation of Occupational Safety and Health at work places is equally important to both individuals and organizations and also indirectly to countries. Health and safety policies and programs are concerned with protecting employees – and other people affected by what the company produces and does – against the hazards arising from their employment or their links with the company. Safety programs deal with the prevention of accidents and with minimizing the resulting loss and damage to people and property. They relate more to systems of work than the working environment, but both health and safety programs are concerned with protection against hazards, and their aims and methods are clearly interlinked. Occupational health programs deal with the Prevention of ill-health arising from working conditions. (Armstrong, 2009).

Accidents in the work place results from two causes, unsafe work conditions (physical and environmental) and unsafe work behaviors. Unsafe physical conditions include defective equipment, inadequate machine guards, and lack of protective equipment, noise, radiation, dust, fumes and stress. Therefore the organizations needs to put health and safety programs in their manufacturing firms to make sure that employees don't conduct injuries or get accidents due to unsafe conditions. The occupational safety and health administration establishes and enforces the necessary safety and health standards (Wayne, 1986).

The health and safety of employees is a very significant issue to consider with relation to the attainment of organizational goals. Health and safety policies and programs are concerned with protecting employees and other people affected by an organization's activities, products and services against hazards.

With limited resources to help reduce occupational injuries, companies struggle with how to best focus these resources to achieve the greatest reduction in injuries for the optimal cost. Safety culture has been identified as a critical factor that sets the tone for importance of safety within an organization (OToole, 2002).

Human Resource is one of the most valuable assets an organization do have, effective and efficient use of human resource will foresee any organization at top level due to high Human resource job performance, therefore it is vital for employers to have a healthy and secure workplace for employees. People operate the machines, design new products and services, make decisions to spend financial resources, market the products and deliver services and even decide the organizations' objectives.

Thus, human resource management influences the expenses associated with achieving the organizational mission, productivity and the effectiveness of the organization. Employee safety and health, among other human resource management activities, is a crucial element which derives the employees towards organizational goal achievement. Occupational health and safety have great importance in the employees work environment (ILO, 2010).

Organization officials have a legal responsibility, if not a morale one, to ensure that the work place is free from unnecessary hazards and that conditions surrounding the work place are safe for employees' physical and mental health. Occupational health and safety have great importance in the employees work environment because now a day's human resource is the most valuable asset that an organization does have and the existence of bad occupational health and safety environment greatly affect the job performance of employees (Decenzo and Robbins, 2004).

The workplace has a significant impact on people's health and well-being. Committing resources to prevent people being made ill by work, or being absent from the workplace for health reasons, and placing an emphasis on rehabilitation and getting people back to work can benefit both employers and employees. The healthier the work place, the healthier will be the work force and the better the business delivery will be. Poor management of workplace health can lead to work-related ill health and to high levels of sickness absence.

This gives real cause for concern, not least because of the costs involved, the impact on service delivery and the consequences for individual staff. Sickness absence is a key business issue, and it is a key indicator of how well an organization is managed. (Professor Khan, 2006).

The issue of health and safety is a major function of any organized human resources department. Health and Safety Programs are aimed at protecting employees against the hazards arising from their employment or their links with the organization. A safety audit will examine the whole organization in order to test whether it is meeting its safety objectives. It will examine hierarchies, safety planning process, decision making, delegation, policy making and implementation as well as all areas of safety program planning. (Armstrong, 2006).

It is unethical and short sighted business practice to compromise the health of workers for the wealth of enterprise (Evelyn Kortum, WHO). The benefits of a healthy workplace are many. Healthier employees are good for business and to society as a whole. A healthy workplace should be the aspiration of employers and employees. For organizations, there is strong evidence that healthy workplaces lead to improved employee engagement, which in turn leads to enhanced productivity and organizational performance.

A healthy workplace improves an organization's bottom line. Investing in people today builds the capabilities needed for long-term improvements in service and product quality, and overall organizational performance. The bottom line for a workplace is improved through: Reduced absenteeism and injuries, increased recruitment and retention, improved employee health and well-being, reduced grievances and disability time, improved employee satisfaction and commitment and improved productivity and service quality. Conversely, the cost of doing nothing is enormous. Unhealthy and unsafe work places among others increases incidence of: Injuries, Mental health problems, Conflicts, and many other negative impacts on employees of any organization (ILO, 2010).

Employees who work in the safe environment and enjoy good health are more likely to be productive and yield long term benefits to organization (Mondey,). Providing a safe work environment is important for several reasons, one of which is the staggering number of work related accidents. Occupational health and safety is one the most important aspect of human concern.

It aims an adaptation of working environment to workers for the promotion and maintenance of the highest degree of physical, mental and social well being of workers in all occupations. (Takele and Admasu, 2006).

Safe and healthy work environment is one of the parameters that ensures workers' wellbeing and contributes positively to the national economies and organizational performance through improved productivity, consistent product quality, employee motivation, job satisfaction and overall improved quality of workers' life and society (ILO, 2010). The labour proclamation of Ethiopia No\_377/2003 article 92, clearly states the fundamental obligations of an employer with regard to putting in place of all the necessary measures in order to ensure work places are safe, healthy and free of any danger to the wellbeing of workers (MOLSA, 2004).

According to a paper published by the Ministry of Labour and Social Affairs of Ethiopia, 2006, manufacturing industry has the most hazardous workplace. That is mainly due to lack of safety leadership, the nature of the industry and lack of enforcement of labour proclamation No 377/06 article 92. Therefore, the aim of the study was to assess Occupational health and safety management practices in the study area.

## **1.2. Statement of the problem.**

The status of occupational injuries in workplaces in general is ill defined in Ethiopia. Various Studies indicate that occupational injury due to an unsafe working environment is increasing. Industries are growing region wise that has higher rate of work related injuries. Knowing the associated factors of work-related injuries can be a critical step for improving the working condition of workers in the sector. Health and safety issues have always been a major problem and concern in the industry. Despite the programs implemented by government authorities and measures introduced by companies themselves, the numbers of accidents are still remains alarmingly high. (Thewodros Bekele, 2016).

Safety and health hazards at occupational environment affect the employee job performance. In the process of HRM organizations can achieve their predetermined goal if and only if employees are safe and healthy. Now a day's human resource is the most valuable asset that an organization does have and the existence of bad occupational health and safety environment greatly affect the job performance of employees.

Habesha Steel Mills is one of the largest industry located in oromia regional state at Dukem town that consists huge number of employees. Many reports of concerned government officials of the area show that there are generally poor Human resource practices and there is a gap in HRM within the industries in the area which demands scientific inquiry. As evidences from annual reports of Dukem town labor and social affairs office and many formal and informal information in the study area indicates Habesha Steel Mills Plc is one of the industry with Poor HRM in general and poor OSH in particular which requires scientific study to solve the issue.

As identified by Dukem town labor and social affairs office it is one of the riskiest industries located in the area with poor occupational safety and health practices that really requires analysis.

Many researches were made on different functions of HRM. But research on employee health and safety is still very limited which requires further analysis. There were very few studies related to the issue in general and even the existing studies show the existence of low level of practice of occupational safety and health and surprisingly there was no such scientific research study on the issue yet in the study area which really made this study demanding. There is no such systematic study made in HRM practices on industries located in the study area in general and OSH practices in particular which indicates critical demand of systematic research on the issue in the area. This problem is really significant for the industries in the area. As preliminary review made on industries in the study area indicates the owners and managers were not concerned towards proper HRM in general and the employee's health and safety at work environment in particular who really needs systematic information through efficient analysis on the issue there by to make proper decision on the issue and develop policies and strategies to solve the issue in the work place.

### **1.3. Research Questions.**

This study with respect to the aforementioned problems was guided by the following major research questions:

- How is the status and Practice of Health and safety policy in the study area?
- What are the key health and safety risks faced by Employees in Habesha Steel Mills Plc?
- What are challenges the organization is facing in implementing health and safety policies?

### **1.4. Objectives of the study.**

#### **1.4.1. General Objective.**

The main objective of the study was to assess Practices of Occupational Health and Safety Management in Habesha Steel Mills PLC.

#### **1.4.2. Specific Objectives.**

- Assessing the existing OSH Management practices in the Study area.
- To identify key health and safety risks faced by Employees in Habesha Steel Mills Plc.
- To identify challenges the organization is facing in implementing health and safety policies and strategies in the study area.

### **1.5. Significance of the study.**

Generally, the more the working environment of the work place is safe and healthy, the better the quality of service delivery, Productivity and efficiency of the people will be. If OSH policies and strategies were properly designed and implemented undoubtedly people contributed for the achievement of the organizational objectives. The findings and information obtained from this study will specifically essential for decision makers in this company which will provide them scientific information that will enable them to understand the impact of occupational safety and health on the Organizations' and employees' job performance.

Moreover, it will give suggestion for the concerned policy makers the extent to which OSH policies and strategies were designed and implemented properly there by to make informed decisions. It can also be used to other interested researchers as a reference since this HR function needs further studies by many professionals.

This study is important for recommending the targeted and other industries in the area a need for efficient Occupational Safety and Health management practice (OSHMP) to prevent occupational hazards and diseases and it will be important in serving as good references by adding value to existing literature on Occupational Safety and Health management practices. The outcome of this study will contribute particularly towards the control of hazards in the Habesha Steel Mills Plc.

### **1.6. Scope/Delimitation of the study.**

This research was aimed at Assessing Practices of Occupational Health and Safety Management in Habesha Steel Mills PLC. Over all OSH management practices and the level of implementation of OSH management practices including factors that limits the implementation of Occupational Health and Safety policies and strategies were the focus of this study. Geographically, this study was limited to Habesha Steel Mills Plc located in Dukem town. The time scope of the study was one year.

### **1.7. Limitations of the Study.**

Though managed accordingly, this study was not without any short comings. Initially employers and few management bodies were reluctant in providing immediate responses, since the study required some sensitive and critical company information. Moreover the study was focused only to one company which was Habesha steel mills plc due to limitations of budget and other required facilities for the study.

### **1.8. Operational Definitions.**

**Accident:** An unplanned event that results in harm to people, damage to property or loss to process.

**Company/ Organization/study area:** in this study it refers to Habesha Steel Mills Plc.

**Hazard:** is a situation that poses a level of threat to life, health, property, or environment.

**Employee/ Worker:** Any individual who performs work, either regularly or temporarily, for an employer.

**Health and Safety Training:** Trainings given to a worker about health and safety issues.

**Occupational Injury:** Any physical injury condition sustained on worker in connection with the performance of his or her work.

**Occupational Safety** – The maintenance of a work environment that is relatively free from actual or potential hazards that can injure employees

**Occupational Health:** The development, promotion, and maintenance of workplace policies and programs that ensure the physical, mental, and emotional well-being of employees.

**OSH management system:** is a frame work that allows an organization to consistently identify and control its health and safety risks, reduce the potential for accidents, help achieve compliance with health and safety legislation and continually improve its performance.

**Personal Protective Equipment (PPE):** Any device worn by a worker to protect against hazards. Some examples are: respirators, gloves, ear plugs, hard hats, safety goggles and safety shoes.

**Risk:** The probability of a worker suffering an injury or health problem, or of damage occurring to property or the environment as a result of exposure to or contact with a hazard

**Workplace:** Means the office, Location or work site, where the workers perform their regular work and in this study it is the case of Habesha Steel Mills Plc.

**Work-related injury:** Death or any personal injury resulting from occupational accident.

## **1.9. Organization of the Study**

The study was organized in to five chapters. The first chapter is the introduction part in which the background of the study, statement of the problem, objectives of the study, research questions, Significance of the study, Scope of the study and Limitations of the study were described. In Chapter two related literatures were reviewed and described. Chapter three presents description of the research methodology that was used in the study. Chapter four presents Data analysis and Discussions. The last chapter, Chapter five describes the summary, conclusion and recommendation based on the findings of the study. References and appendices and other formal documents such as Acknowledgements and Abstracts were also included in this thesis report.

## **Chapter Two**

### **Review of Related Literature.**

#### **2.1. Introduction.**

This chapter reviews related literature on occupational health and safety (OHS) practices, the need for OHS issues in the workplace, Occupational risks and hazards, OSH policies and strategies and Empirical studies on OSH management practices.

#### **2.2. Theoretical Review.**

##### **2.2.1. Concepts of Occupational Safety and Health.**

Occupational health refers to a general state of physical, mental, and emotional well-being of a worker. A healthy worker is the one who is free from illness, injury, mental and emotional problems that may impair his normal work activity or routine (Mathis and Jackson (2004).

According to Premier Occupational Healthcare (2010), OSH refers to activities, processes, or procedural strategies to protect and promote the health and safety of workers, which was aimed at eliminating all factors, behaviors and conditions hazardous to human health and safety at work. OHS enhances the physical, mental and social well-being of workers, and supports the development and maintenance of their working capacity, as well as professionalism and social development at work

According to WHO a healthy workplace is one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of workers and the sustainability of the workplace by considering the following, based on identified needs: Health and safety concerns in the physical work environment, Health, safety and well-being concerns in the psychosocial work environment including organization of work and workplace culture, Personal health resources in the workplace and ways of participating in the community to improve the health of workers, their families and other members of the community.

According to Health and Safety Guide, for Human resource Management practitioners, prepared by Canadian centre for Occupational health and safety (CCOHS), Among others the general guidelines for integrating workplace health and safety in human resources management practices and carrying out OHS responsibilities effectively in conformity with the applicable health and safety legislations are:

- Preventing work related injuries and illnesses and creating a workplace safety culture
- Establishing administrative procedures that encourage employees to report unsafe conditions and unsafe practices to their supervisors without fear of being disciplined,
- Developing appropriate hiring, training and performance appraisal practices,
- Ensuring that the health and safety policies and procedures conform with the applicable OSH legislation and accepted best practices in similar organizations,
- Establishing procedures for enforcing company safety rules and maintaining records of injuries, illnesses and workers' compensation.
- Helping reduce costs associated with losses due to absenteeism injuries, Workers' Compensation, disability, and health care,
- Coordinating first aid training and the provision of first aid to employees and providing advice to employees and the employer in matters of occupational health and safety.

According to the International Labour Organization (ILO) and the World Health Organization (WHO), health and safety at work is aimed at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations, the prevention among workers of leaving work due to health problems caused by their working conditions, the protection of workers in their employment from risks resulting from factors adverse to health, the placing and maintenance of the worker in an occupational environment adapted to his or her physiological and psychological capabilities and, to summarize, the adaptation of work to the person and of each person to their job. (ILO, 2006).

According to an ILO training module with the title Introduction to Health and Safety at Work (ILO, 2013), work-related accidents or diseases are very costly and can have many serious direct and indirect effects and outcomes on both the lives of workers, their families and also on the financial status of the enterprises.

Occupational accidents have negative impact on employers. Among others payment for work not performed; compensation payments, reduction or a temporary halt in production, increased training expenses and administration, insurance & pension costs are the major ones. Poor health and safety conditions in the workplace can also result in poor public relations. The motives for developing an effective occupational safety and health policy stem from social as well as from economic objectives. If one considers health and safety to be a basic right for every worker, the economic goals have to be embedded in the social policy at company and society level. (ILO, 2013).

### **2.2.2. Health and safety policies**

Efficient OSH management practices begin from developing a clear written OSH plans and policies. Written health and safety policies are required to demonstrate that top management is concerned about the protection of the organization's employees from hazards at work and to indicate how this protection will be provided. They are therefore, first a declaration of intent, second a definition of the means by which that intent will be realized and third, a statement of the guidelines that should be followed by everyone concerned- which means all employees-in implementing the policy. The policy statement should consist of three parts: the general policy statement, the description of the organization for health and safety and Details of arrangements for implementing the policy (Armstrong, 2009).

### **2.3. Occupational Risks and Hazards.**

As stated in the Occupational health and safety training manual of Ministry of Labour and social affairs (MOLSA, 1997) the work place hazards were related to the following risks and hazards:

#### **2.3.1. Chemical Hazards.**

One of the major health and safety risk in industries are chemicals which represent majority of workplace health hazards. Obviously an industry work place may have a number of chemical hazards including: Dusts, Mists, Toxic gases, Fumes, Vapors, X-rays/ radiations and many other dangerous chemicals.

### **2.3.2. Physical Hazards.**

Broadly speaking, people in any setting operate within the physical environment which can be a source of risk and hazards. Among others physical hazard in the work place may occur in the form of Too much noise , Poisoning, too much light, Too low light , Too much heat, Too much cold, Too much pressure , vibration and fire.

### **2.3.3. Biological Hazards.**

OHS may also be related to biological hazards. Employees in the work place may be subject to specific health hazards relating to the nature of their work with biological materials or from working in environments where micro-organisms may abound. These hazards may be related to the existence of animals or plant materials or sometimes the treatments of sick persons. Biological hazards may happen in the work place and it can also affect members of the general working community. Biological hazards among others include: Bacteria, Fungi, Allergenic agents and Viruses. These are presented by exposure to infectious microorganisms, to toxic substances of biological origin or animal attacks which need care and considerations in the work place.

### **2.3.4. Ergonomic Hazards.**

Visual conditions, strenuous work, bad work design, shift work and risk of physical strain can be a source of risk in the work place. Ergonomic (human engineering) is a way of thinking and planning work so that it is organized to suit the abilities and needs of the people doing it. People are not identical in all aspects. Despite progress in technology, there is still a lot to be done before machinery and equipment are designed for use by people. As a result of poor design, people often suffer from lower back pain and injury to muscles and joints. Visual problems are increasing with the wide spread use of various display units and work inspection. These are among the most common health problems in working life.

### **2.3.5. Psychological or Social hazards.**

Psychological hazards are among risks that occur in the work place. Obviously employment is a dynamic process and there are factors over which workers have no control, such as the state of an economy or the weather. Because of the same factors, there can be intense pressure to become more productive.

Since the workforce is constantly changing, and with it the hours and location of work, and many projects require living in work campus away from home and family, workers may lack stable and dependable networks of social support. Features of work such as heavy workload, limited control and limited social support are the very factors associated with increased psychological hazards in the work place.

## **2.4. Conducting risk assessments**

Identification and proper management of key health and safety risks that employees may face is important task of OSH management practices. Risk assessments are concerned with the identification of hazards and the analysis of the risks attached to them. There are two types of risk assessment. The first is quantitative risk assessment, which produces an objective probability estimate based upon risk information that is immediately applicable to the circumstances in which the risk occurs. The second is qualitative risk assessment, which is more subjective and is based on judgment backed by generalized data. Risk assessment should lead to action. The type of action can be ranked in order of potential effectiveness in the form of the following ‘safety precedence sequence’, including Hazard elimination, substitution, use of barriers, use of procedures, use of warning systems and use of potential protective clothing. Safety audits can be conducted by safety ex experts or HR specialists, but the more managers, employees and trade union representatives are involved the better. (Armstrong, 2009).

## **2.5. Empirical Findings OSH.**

The result of the Study made by Solomon Tibebe on the practices and challenges of Occupational health and safety in Ethiopia: the case of Akaki textile and garment factory indicated that Physical and Chemical hazards were the two dominant hazards in the study area. The study indicated that work in the factory severely affected worker’s health, as most activities are insecure, hazardous and take place in unhealthy and unsafe environment.

The benefit of occupational health service in developing countries is seen locally as well as on a national level. The positive impact of occupational health service locally may be observed in reducing morbidity and work-related injuries. In addition, this also means fewer losses to employer and worker as there will be a reduction of wage losses and decreased compensation costs.

The reduction of absenteeism is of great importance concerning skilled labour, especially so in countries where there is a shortage of skilled labour. Making working conditions healthy and safe is in the interest of workers, employers and governments, as well as the public at large. Although it seems simple and obvious, this idea has not yet gained meaningful universal recognition. Hundreds of millions of people throughout the world are employed today in conditions that breed ill health and/or are unsafe.( Takele and Mengesha, 2006).

According to the study of Mekonnen Lenjisa( 2016) on the title of Practices of Occupational Health and Safety Management in Oromiya Steel Pipe Mil PLC: The presence of occupational illness and injuries indicate the magnitude of occupational hazards in many industry is significantly high. Physical hazards are the major causes of occupational hazards. The level of implementation of OSHMS is low. Identifying, preventing and control of hazards are poor and needs attention. Even though it is impossible to fully control hazard companies are expected to inform employees how controlling mechanism is implemented and plan for hazards they face. Implementing an effective OSH Management system requires, among other things, clear assignment of roles and responsibility to key stakeholders and training programs to provide employees with the tools to execute their responsibilities which were lacking in many industries.

According to the study of Takele Zewdie (2011), on the title of assessment of occupational safety and health management system in some federal government organizations, The existence of Occupational hazards and disease are Physical (17.11%), Chemical (16.49%), Biological (22.92%), Ergonomic (24.58%) and Psychological (18.87%). The finding was that most of the experts described that Occupational Safety and Health Management System (OSHMS) in the surveyed organizations did not effectively implemented. The major challenges are lack of awareness of top and middle level managements and civil servants, insufficient or lack of budgetary support; failure to customize OSHMS to organizational needs; weak management commitment; lack of integration with general management functions and systems and restricting OSH functions to OSH experts. The response of most civil servants also shows that they are not aware about the practice or implementation of Occupational Safety and Health Management System (OSHMS) in their organizations.

According to the study of Muluken Legesse (2016), on Impact of Occupational Safety and Health on Organizational Performance in East Africa Bottling Share Company, though the company had a nicely crafted OSH policy and procedure, the study revealed that workers in these areas had high injury rates. This study identify that in the previous two years before the study, 82.1% faced minor injuries with 67.9 % of them being hospitalized with a 1 to more than 10 days of sick leave. These had a negative impact on production performance of the company and contributed 2.75% from the company's total performance losses. The main sources of injuries in the case company were broken glass, repetitive job and workload and slippery floors. The main reason why employee faced these issues were due to carelessness of employee, lack of awareness and training, poor OSH implementation supervision and lack of PPEs. In addition, work related OSH training was not adequately given to temporary workers.

In addition to studies on OSH made in our countries, studies made on neighboring countries also indicate that there is problem of implementation of OSH policies and strategies by employers. The finding of the study made by Yankson Esi on Effect of health and safety standards on productivity in Ghana rubber estates limited revealed that employees' productivity is influenced by management safety practices and safety programs, management attitude towards health and safety, investigation of accidents, supervisors' safety, and training of employees on safety standards held in the organization. It also revealed that health and safety standards if managed effectively have a positive impact on productivity. The study made by Musyoka Rose on Relationship between health and safety programs and performance of manufacturing firms in Mombasa country, Kenya, Concluded that the implementation of health and safety programs at the work place has a positive impact on employees' performance.

A study by Franklin Nkudefe on the effects of Occupational safety and health on labor productivity: a case study of some selected firms in the greater accra region of Ghana concluded that health and safety are vital to one's productivity. The marginal impacts of health and safety on employees' productivity were 21 and 27 percent respectively. It was also evident that health and safety positively affect one's attendance, quality, quantity, effort and concentration levels at work. However, the health of the individual and safety of the organization greatly affect one's quality of work and attendance respectively among the performance indicators.

## **Chapter Three**

### **Research Methodology**

#### **3.1. Introduction.**

In this chapter, the methods and procedures used in data collection and analysis were described. The components of this chapter were: the research design, Population of the study, Data Source, collection methods and tools, Data analysis and presentations, Sample population and sampling techniques.

#### **3.2. Description of the Study area.**

This study was carried out in Habesha Steel Mills Plc which is one of the largest industry in special zone of Oromia surrounding addis ababa area in Dukem town. This company was specialized in production of rebar for which the inputs are Scrap and imported billets.

#### **3.3. Research Design.**

This study adopted descriptive research design since application of this design would allow detailed assessment of the issue of the enquiry. The researcher used descriptive type of design since the purpose of this study was to describe the status of the OSH as they are.

Descriptive research describes an accurate profile of persons, events or situations. This design offers the researchers a profile of described relevant aspects of the phenomena of interest from an individual, organizational and industry-oriented perspective. It presents data in a meaningful form that helps the researcher to understand the characteristic of a group in a given situation, to think systematically about aspects in a given situation, offer ideas for further research and helps to make certain decisions. (Saunders, 2009).

#### **3.3. Research Approach.**

For the achievement of the research objectives, the researcher used both qualitative and Quantitative types of data that is mixed approach, because the nature of the study required both qualitative and quantitative data.

### **3.4. Data Sources.**

To conduct this study, the researcher collected data from both primary and secondary sources. The primary sources of Data for the study were company workers (through structured questionnaires) and managerial personnel of the company. The secondary data that the researcher used included various literatures on the topic under research, Different research reports, text books and other publications with sort of relevant information for this study.

### **3.5. Data collection techniques.**

The data collection instruments adopted in this study were Questionnaires and an interview. The researcher applied those instruments jointly to collect adequate data on the issue of the study and for the purpose of triangulation. Employing multiple data collection instruments helps the researcher to combine, strengthen and amend some of the inadequacies of the data and for triangulating it (Cresswell, 2003).

Though, the aforementioned instruments were used for data collection, a questionnaire was a major data collection tool in this study. According to Kothari, (2004) the questionnaire method of data collection is the most appropriate and convenient tool for collecting data. Questionnaires relative to other tool are economical in terms of time and cost, it facilitates easy and quick responses within a short period and it give freedom to respondents of any category to express their views or Opinion.

Accordingly, for this study Both Open and closed ended questionnaires was prepared in English and translated to Amharic version and used to collect relevant data from factory workers. Detailed information about the socio-demographic, behavioral and work environment characteristics, practice towards occupational health and safety of the company, challenges that the company faces for proper implementation of Occupational health and safety, sort of occupational risks and work related injuries faced by employees were collected.

Before distributing the questionnaires to these parties all important orientation and explanation were given and finally the researcher in collaboration with supervisors and other concerned parties prepare one big locked box in which respondents freely drop the filled questionnaire

without any fear in one free office of the company about which all respondents were informed in advance during orientation.

To allow respondents to express their opinion, open ended questions were used to explain and describe facts related to safety and health practices. In addition to Questionnaires the researcher used semi- structured interview to collect data from the management including supervisors. Why semi-structured interview was used was to get detailed data in the required issue/topic. Review of documents and records of the company regarding implementation and management system of policies and strategies of employee Occupational health and safety of workers of the company were also employed.

### **3.5.1. Reliability of Research instrument.**

Reliability refers to the degree of consistency with which an instrument measures the attribute it designed to measure (Polit and Hungler). Bias during data collection were reduced because the questionnaires were self administered by the researcher himself. Questionnaires developed and distributed to workers were follow a logical pattern and were consistent there by to avoid contradiction among responses.

### **3.5.2. Validity of research instrument.**

With respect to the topic of the study the researcher tried to adopt the instruments from different related literatures there by for the instrument to truly measure what it intends to measure. Before developing them, the researcher links the questions to the objectives of the study.

### **3.6. Sampling Design.**

The target population for this study was employees and management of Habesha steel mills plc. The total populations of employees in this company were 178, among which 147 were males the remaining were female workers. For this study, the researcher applied both probability and non probability sampling techniques. 50 employees were randomly selected among employees of the company. 8 managerial personnel's were purposefully selected for interview purpose.

Though there is a general agreement among many researchers that the larger the sample size, the lower the risk of sampling error , Burns, (2010), contended that what determines sample size for the study is the nature of population, kind of data to collected, nature of analysis to be carried out

and the availability of budget for the study. For this study the researcher made important consideration to get the highest sample size.

The maximum accepted sample size is 1,400 samples when the size of the population is above 150,000 (OSP0, 2005).Accordingly the sample size was determined based on the following table.

**Table 2.1: Sample size determination.**

Population	Sample Size		
	Low	Medium	High
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1,200	32	80	125
1,201-3,200	50	125	200
3,201-10,000	80	200	315
10,001-35,000	125	315	500
35,001-150,000	200	500	800

Source: J Carvalho, "Archival application of mathematical sampling techniques", Records Management Quarterly 18:63 (1984) as cited on OSPO, 2005.

Therefore based on the above table the size of the sample will be 50 in numbers which is the highest recommended size.

### **3.8. Data Analysis and Processing techniques.**

The researcher employed different statistical methods of data analysis with considerations of the nature of collected data. In this study, both Qualitative and Quantitative techniques were employed to describe, present and interpret the collected data there by to draw adequate conclusion on the findings.

The collected data from the sample respondent were summarized using Excel and which was then transferred to SPSS version 20 for analysis using different descriptive statistics such as percentage tables and frequencies. Data was presented in tables and graph. The likert scale questions were encoded before entry in to the computer. For easy analysis and description the

Qualitative data's collected through interview were edited, coded, and analyzed using thematic analysis.

### **3.8. Ethical Clearance of the study.**

Ethics relates to moral choices affecting decisions, standards and behavior. So it is hard to lay down a set of clear rules, which covers all moral choices. (Dr. sue Greener, 2008). Ethics in research refers to the norms for conduct that distinguish between acceptable and unacceptable behavior (David and Resnik, 2010). Research ethics helps to protect the rights of respondents. With respect to this study, from the very beginning Permission was obtained from the local administrative bodies (Dukem town administration and The Dukem town labor and social affairs office) and from all concerned Management bodies of Habasha steel mills Plc.

During data collection permission was obtained from every study subject after clearly explaining the purpose of the study. All information gotten from the respondents were treated with confidentiality without disclosure of the respondents' identity. In this research no information was modified or changed, hence information gotten was presented as collected and all the literatures collected for the purpose of this study were appreciated in the reference list. The rights of anonymity and informed consent were considered by the researcher.

## **Chapter Four**

### **Data analysis and Discussion.**

#### **4.1. Introduction.**

This chapter covers presentation and discussions of the results in addressing research objectives. It presents views from respondents using questionnaires and interviews. With respect to the nature of the study Descriptive statistics was used in analyzing the collected data from target respondents. Frequency distribution tables were presented which contains percentage response of each respondent.

#### **4.2. Response rate**

For the purpose of collecting primary data through questionnaires 50 questionnaires were distributed to randomly selected respondents and all questionnaires were filled and returned to the researcher that represent 100 % response rate which gives the researcher confidence regarding the finding of the study. Interview was made with purposefully selected managerial personnel consisting 8 individuals.

#### **4.3. Back ground of respondents.**

##### **4.3.1. Gender of the respondents.**

The respondents were asked to indicate their gender in the questionnaires with the purpose of identifying the actual number of respondents in terms of male and female that participate in filling the questionnaires since males and females have sort of differences in attitude and views towards events. Table 4.1. Below shows that out of the total respondents participated in the questionnaire majority of them, that is 41 of the respondents representing 82 % were males and the remaining 9 respondents representing 18 % were females. It can be generalized here that there are more male workers than female due to the nature of work in this company as it needs sort of energy and capacity of employees on work.

**Table 4.1. Gender of the respondents.**

Gender	Frequency	Percent (%)
Males	41	82.0
Female	9	18.0
Total	50	100

Source: Survey result, 2018.

#### **4.4. Age of respondents.**

Table 4.2. Below depicts age distribution of the respondents. This was with the purpose of identification of average age of employees involved in operation of an organization. The table shows that 6 respondents representing 12% fall within age of below 25, 30 respondents representing 60 % fall within age category 25-35, 12 respondents representing 24 % fall within age category of 36- 55 and the remaining 2 respondents representing 4 % fall within age category of 46- 55. The data shows that majority of the employees in the organization fall within 25–35 Years. Therefore, from this one can conclude that majority of employees in the company were young , energetic and productive work force that needs efficient application of performance management in this company as one opportunity to increase potential productivity of the company for mutual advantage of employees and employers. The collected data showed the company has young population whose skills and knowledge need to be improved which probably determine profitability and sustainability of this company.

**Table 4.2.Age of the respondents.**

Age	Frequency	Percent ( %)
Below 25	6	12.0
25-35	30	60.0
36-55	12	24.0
46-55	2	4.0
Total	50	100

Source: Survey result, 2018.

#### **4.5. Educational back ground of the respondents.**

With the purpose of identifying academic qualification of respondents participated in the study the respondents were asked to indicate their educational back ground. Table 4.3. Below shows 9 respondents representing 18 % were obtained high school certificate, 12 of respondents representing 24 % were diploma holders, 29 of the respondents representing 58 % BA/BSC degree holders. The data shows that majority of the respondents have attained first degree level of education who are well informed for providing response and views for the study. Moreover, one can also conclude here that more than half of the staffs in the company have sort of knowledge important on job through formal education though the remaining 42% who were below first degree needs attention of the company to make them qualified and dynamic for potential job responsibilities. The collected data here also showed that the highest educational level attained by staff is first degree; none of the respondents have MA/MSc which is also needs attention of the company in the future.

**Table 4.3. Educational back ground of the respondents.**

Educational back ground	Frequency	Percent (%)
high school	9	18.0
Diploma	12	24.0
BA/BSC degree	29	58.0
Total	50	100

Source: Survey result, 2018.

#### **4.6. Marital status of respondents.**

With respect to the marital status of respondents the following table shows that 30 respondents representing 60 % were unmarried individuals, 17 respondents representing 34 % were married and the remaining 3 respondents that represent 6 % were divorced individuals. It is right to conclude here that majority of the staff in this company did not get married though this requires other investigation.

**Table 4.4. .Marital status of respondents.**

Marital status	Frequency	Percent (%)
Single	30	60.0
Married	17	34.0
Divorced	3	6.0
Total	50	100

Source: Source: Survey result, 2018.

#### **4.7. Working experience of respondents.**

With the purpose of determining the consistency of duration of employees working in the organization, table 4.5. Depicts the working experience of employees participated in the study. The collected data in the following table indicates 23 respondents representing 46 % were working between 2-4 years in the company, 18 respondents representing 36 % have worked between 4-7 years, 7 workers representing 14 % were worked between 7-9 years and the remaining 2 respondents representing 4 % have been working for more than 9 years. The company is advised to implement talent retaining methods, because the ratio of workers that have more 9 years of working experience relative to other category is low.

**Table 4.5. Working experience of respondents.**

Work experience	Frequency	Percent (%)
2-4 years	23	46.0
4-7 years	18	36.0
7-9 years	7	14.0
Above 9 years	2	4.0
Total	50	100

Source: Survey result, 2018.

#### **4.8. Nature of employment of the respondents.**

With respect to nature of employment of the respondent the collected data shows that 34 respondents representing 68 % were full timers (permanent workers) where as the remaining 16 respondents representing 32 % were contract workers. This shows that most respondents/ staff were permanent workers.

**Table: 4.6. Nature of employment of the respondents.**

Nature of employment	Frequency	Percent (%)
full time	34	68.0
Contract	16	32.0
Total	50	100

Source: Survey result, 2018.

#### 4.9. Salary of the respondents.

With respect to salary range of respondents as depicted in table 4.7. below 2 respondents representing 4% earns monthly salary that ranges between 1000-2000, 12 respondents representing 24 % were earns between 2001- 2500, 27 respondents representing 54 % earns between 2501-3500 and the remaining 9 respondents representing 18 % were earned more than 3500 monthly salary. The data showed that most the respondents' monthly salary ranges between 2501 to 3500. Here it can be realized that the salary of workers in this company is not that much attractive and it needs attention of concerned party in the company in the future to make Employees salary attractive there by to retain workers in the organization.

**Table 4.7. Salary of the respondents**

Salary range in Ethiopian birr.	Frequency	Percent (%)
100-200	2	4.0
2001-2500	12	24.0
2501-3500	27	54.0
>3500	9	18.0
Total	50	100

Source : Own survey, 2018.

#### 4.10. OSH Management Practice of the company.

**Table 4.8. Management of OSH program.**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percent</b>
The company has a clear written plan regarding Occupational Health and Safety of its workers.	S. Disagree	6	12
	Disagree	8	16
	Neutral	7	14
	Agree	12	24
	S. Agree	17	34
The organization has a written health and safety policies and strategies that include Programs and procedures for environmental, health, safety (EHS) and working conditions.	Neutral	9	18
	Agree	15	30
	S. Agree	26	52
The company management implements a written policy supporting and mandating the safety and health management system.	S. Disagree	3	6
	Disagree	8	16
	Neutral	11	22
	Agree	16	32
	S. Agree	12	24
The organization's written health and safety policy or programs is available to all employees.	S. Disagree	29	58
	Disagree	8	16
	Neutral	13	26
When supervisors see an employee working in an unsafe manner, they immediately take action	Neutral	1	2
	Agree	8	16
	S. Agree	41	82

Source: - Own survey, 2018.

Table 4.8. above deals with safety and health management system with respect to management of the OSH program, employees' participation, hazard identification, OSH training, hazard prevention and control and program monitoring and evaluation of occupational safety and health. To assess OSH management system of the company questions were posed to the respondents.

This was analyzed as follows: Concerning the written plan for Occupational Health and Safety of workers in the company 17 and 12 respondents representing 34 % and 24 % of respondents were strongly agree and agree respectively. 7 respondents representing 14 % and 8 respondents representing 16 % were neutral and disagree respectively. The remaining 6 respondents representing 12 % were strongly disagree with the issue. This shows that most the respondents agree with the issue that the company has a clear written plan regarding Occupational Health and Safety of its workers. It can be observed from the table that 26 respondents that represent 52 % of the respondent were strongly agree and said that the company has a written health and safety policies and strategies that include Programs and procedures for environmental, health, safety and working conditions. 15 respondents representing 30 % agree and said that the company has written health and safety policies. 9 respondents representing 18% were neutral and indifferent on the issue. Surprisingly, it can be further seen from the table that there is no respondents that said the company do not have a safety policy. The collected data on this issue showed that most of the respondents said there a written health and safety policies and strategies in the company.

The respondents were also asked whether or not the company management implements a written policy supporting and mandating the safety and health management system. 12 and 16 respondents representing 24 % and 32 % were strongly agreed and agreed respectively and said that the company management implements a written policy supporting and mandating the safety and health management system. 3 respondents representing 6 % and 8 respondents representing 16 % respectively were strongly disagree and disagree on this issue. The remaining 11 respondents that represent 22 % were neutral on the issue asked. This showed that though more than half of the respondents agree with the issue there either gap to be improved or some workers do not have awareness on what the company is doing on the issue.

The respondents were also asked to what extent the organization's written health and safety policy or programs is available to all employees. 29 respondents representing 58% and 8 respondents representing 12% were strongly disagree and disagree respectively and said that the organization's written health and safety policy or programs are not available to all employees. 13 respondents representing 26% of the respondent were neutral on the issue.

No respondent agree and strongly agree with statement that the organization's written health and safety policy or programs is available to all employees. From this it can be realized that the organization's written health and safety policy or programs is not available to all employees and the concerned party in the company is expected to work seriously on this issue.

The researcher also asked whether immediate actions were taken by supervisors when they see an employee working in an unsafe manner. 41 respondents representing 82% and 8 respondents representing 16% of the respondent replied that supervisors take immediate actions when they see an employee working in an unsafe manner. 1 respondent representing 2% of the respondents is neutral on the issue and there was no among respondents that said supervisors does not take an immediate actions when they see an employee working in an unsafe manner. The collected data on this issue showed that the respondents agree with the supervisors' role that they have taken immediate actions when an employee is working in unsafe manner.

**Table 4.9: Employee Participation.**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percent</b>
The company involves employees in defining and developing the worker health and safety program structure.	S. Disagree	19	38
	Disagree	17	34
	Neutral	9	18
	Agree	4	8
	S. Agree	1	2
Employees are active in participating in hazard detection, prevention and control activities.	S. Disagree	18	36
	Disagree	15	30
	Neutral	10	20
	Agree	7	14

	S. Agree	0	0
The company well comes and acknowledges reports of injuries, illnesses, hazards, or other concerns quickly.	S. Disagree	0	0
	Disagree	1	2
	Neutral	5	10
	Agree	11	22
	S. Agree	33	66
The company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations	S. Disagree	3	6
	Disagree	1	2
	Neutral	4	8
	Agree	18	36
	S. Agree	24	48

**Source : Own survey, 2018.**

With respect to OSH Management practice of the company questions related to employee participation on OSH issue also raised for respondents. The respondents were asked whether or not the Company involves employees in defining and developing the worker health and safety program structure. 9 respondents representing 18% of the respondents replied that the company did not involve employees in defining and developing the worker health and safety program structure and said they did not know the actions taken by the company in defining and developing the workers health and safety program structure.

19 respondents representing 38% of the respondents and 17 respondents that represent 34% of the respondents were strongly disagreed and disagreed with this issue that the company did not involve employees in defining and developing the worker health and safety program structure effectively. Whereas, 4 respondents representing 8% of the respondents and one respondent who represent 2% of the respondents agreed and strongly agreed respectively that the company involves employees in defining and developing the worker health and safety program structure. From this it can be realized that most of the respondents were disagreed that the Company did not involve employees in defining and developing the worker health and safety program structure.

It can also be observed from the above table issues related to Employees participation in hazard detection, prevention and control activities. 10 respondents representing 20% of the respondent reported that no action was taken by the company to allow active participation of workers in hazard detection, prevention and control activities. 18 respondents representing 36% of the respondent and 15 respondents representing 30% of the respondents strongly disagreed and disagreed respectively that there was no significant role played by the company related to employees active participation in hazard detection, prevention and control activities. 7 respondents that constitute 14% of the respondents agreed that there was significant role played by the company that allowed employees active participation in hazard detection, prevention and control activities.

The researcher also asked respondents whether the company well comes and acknowledges reports of injuries, illnesses, hazards, or other concerns quickly. Most respondents representing 22% and 66% agree and strongly agree respectively and said that the company well comes and acknowledges reports of injuries, illnesses, hazards, or other concerns quickly. 2 % of the respondent disagreed with the fact that the company well comes and acknowledges reports of injuries, illnesses, hazards, or other concerns quickly. The remaining 10% of the respondents reports that the company did not take an action on the issue.

Furthermore, in addition to the aforementioned questions related to employee participation on OSH issues, the respondents were also asked whether the company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations.

Most of the respondents representing 36% and 48% agree and strongly agree and replied that company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations. 8% of the respondent did not agree with the fact that the company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations while the remaining 8% of the respondent did not know what action the company has taken on the issue. It can be realized here that the company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations.

**Table 4.10: Employee Training.**

Variables	Categories	Frequency	Percent
Job-specific health and safety training/education must be provided to all employees prior to starting a new job.	S. Disagree	6	12
	Disagree	1	2
	Neutral	1	2
	Agree	10	20
	S. Agree	32	64
The company organizes and arranges for Occupational Safety and Health training, work shop and seminar.	S. Disagree	29	58
	Disagree	10	20
	Neutral	8	16
	Agree	3	6
	S. Agree	0	0
Employees Know their rights and obligations related to OSH and they have awareness on work related injury compensation.	S. Disagree	5	10
	Disagree	4	8
	Neutral	3	6
	Agree	19	38
	S. Agree	19	38
Company workers have a copy of health and safety manual and orientation programs for health and safety provided by the organization.	S. Disagree	19	38
	Disagree	12	24
	Neutral	10	20
	Agree	9	18
	S. Agree	0	0

Source : Own survey, 2018.

The respondents were also asked question related to Employee training on OSH issues. It can be observed from the above table that most the respondents agree (20% agree and 64% strongly agree) with the fact that Job-specific health and safety training/education must be provided to all employees prior to starting a new job in the company.

14% of the respondents did not agree (12% strongly disagree and 2% disagree) on the issue while 2% are neutral sure on the issue. Therefore it can be generalized here that Job-specific health and safety training/education must be provided to all employees prior to starting a new job in the company. It can be seen from the above table 78% of the respondent did not agree ( 58%

strongly disagree and 20% disagree) on the fact that the company organizes and arranges for Occupational Safety and Health training, work shop and seminar, while only 6% agree on the issue. 8 respondents are neutral on the issue. Therefore, the collected data on this issue showed that there is a gap and the company should work seriously on the issue.

Further, the respondents were also requested to provide information whether or not employees in study area know their rights and obligations related to OSH and they have awareness on work related injury compensation. 76% of the respondents agree (38% agree and 38% strongly agree) on the issue, though 18% of the respondents disagree (8% disagree and 10% strongly disagree) on the issue. Only 6% of the respondents reported that the company is not working on the issue.

It can be further, observed from the above table that, 62% of the respondents disagree (24% disagree and 38% strongly disagree) on the fact that Company workers have a copy of health and safety manual and orientation programs for health and safety provided by the organization. The remaining 20% and 18% are neutral and agree on the issue respectively. As it can be realized from the table more than half of respondent said Company workers do not have a copy of health and safety manual and orientation programs for health and safety provided by the organization and the concerned party in the company is advised to work on the issue.

**Table 4.11: Table : Hazard identification.**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percent</b>
The company undertakes inspection in the workplace physical environment to identify conditions that pose or could pose a worker safety or health concern and informs workers of hazards happened	S. Disagree	12	24
	Disagree	3	6
	Neutral	4	8
	Agree	14	28
	S. Agree	17	34
Managers/supervisors ask employees about worker hazards	S. Disagree	3	6

and safety concerns in their work areas during rounds.	Disagree	1	2
	Neutral	3	6
	Agree	14	28
	S. Agree	29	58
Company identifies hazards associated with emergencies and Non-routine operations.	S. Disagree	5	10
	Disagree	17	34
	Neutral	19	38
	Agree	6	12
	S. Agree	3	6

Source : Own survey, 2018.

It can be observed from the above table that 62% of the respondents agree ( 28% and 34% strongly agree on the fact that the company undertakes inspection in the workplace physical environment to identify conditions that pose or could pose a worker safety or health concern and informs workers of hazards happened while 30% of the respondents disagree (6% disagree and 24% strongly disagree) on the issue. only 4 that represent 8% respondents said that the company did not take any action on the issue.

Respondents were also asked whether or not Managers ask employees about worker hazards and safety concerns in their work areas during rounds. 86% of the respondents agree (28% agree and 58% strongly agree) on the issue. 8% of the respondents were disagree (2% disagree and 6% strongly disagree) on the issue. The remaining 6% of the respondents said managers did not take any action on the issue. From this it can be concluded that Managers ask employees about worker hazards and safety concerns in their work areas during rounds.

With respect to hazard identifications respondents were also requested to provide their view whether or not the Company identifies hazards associated with emergencies and non-routine operations. 38% of the respondents were neutral and said that there is no action taken by the company on the issue and 44% of respondents were disagreed (34% disagree and 10% strongly disagree) on the issue. The remaining 18% were agreed (12% agree and 6% strongly agree) on the issue. Therefore, what can be realized here is that there is a gap on the issues that needs attention of the concerned party in the company.

**Table 4.12: Hazard prevention and control issues.**

Variables	Categories	Frequency	Percent
There is hazard control plan in place.	S. Disagree	1	2
	Disagree	1	2
	Neutral	3	6
	Agree	16	32
	S. Agree	29	58
The company promptly installs controls when a hazard is identified.	S. Disagree	2	4
	Disagree	3	6
	Neutral	8	16
	Agree	18	36
	S. Agree	19	38
The company has informed employees of the controls implemented and planned for hazards they may face	S. Disagree	9	18
	Disagree	18	36
	Neutral	17	34
	Agree	4	8
	S. Agree	2	2
Employees are provided with prescribed means and personal protective gear.	S. Disagree	0	0
	Disagree	1	2
	Neutral	4	8
	Agree	11	22
	S. Agree	34	68

Source : Own survey, 2018.

It is a common scenario for industries to have sort of hazards. Accordingly, here the researchers also asked questions related to Hazard prevention and control issues. As it can be observed from the above table 90% of the respondents agree (32% agree and 58% strongly agree) with the fact that there is hazard control plan in place in the company under study. 4% and 6% of the respondents did not agree and neutral on the issue and said the company did not take effective action on the issue and the company has not taken any action on the issue respectively. Therefore, it can be realized here that there is hazard control plan in place in the company under study.

Related to Hazard prevention and control issues respondents were asked to whether or not the company promptly installs controls when a hazard is identified.74% of the respondents agreed (36% agreed and 38% strongly agreed) on the issue while 10% and 16% of the respondents did not agree and neutral on the issue respectively.

The respondents were also requested to provide their view on whether or not the company has informed employees of the controls implemented and planned for hazards they may face. Here on this issue 54% of the respondents were disagreed (36% disagree and 18% strongly disagree).34% of the respondents replied that the company has not informed employees of the controls implemented and planned for hazards they may face. The remaining 10% of the respondents agreed (8% agreed and 2% strongly agreed) on the issue. Therefore, here it can be concluded that there is a gap that demand attention of Managerial personnel with respect to the informing employees of the controls implemented and planned for hazards they may face.

Further, it can be seen from the above table that 90% of respondents agreed (22% agreed and 68% strongly agreed) on the fact that Employees in the company were provided with prescribed means and personal protective gear.2% and 8% of the respondents were disagreed and neutral to the issue respectively.

**Table 4.13: Program Evaluation and improvement.**

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percent</b>
The organization have an accident book or similar accident record system	S. Disagree	8	16
	Disagree	6	12
	Neutral	2	4
	Agree	16	32
	S. Agree	18	36
The Company conducts formal an annual review of the	S. Disagree	10	20
	Disagree	12	24

worker safety and health management program.	Neutral	3	6
	Agree	3	6
	S. Agree	22	44
Company involves employees in the program reviews.	S. Disagree	20	40
	Disagree	17	34
	Neutral	8	16
	Agree	4	8
	S. Agree	1	2
Company modifies the program as needed to correct deficiencies.	S. Disagree	11	22
	Disagree	16	32
	Neutral	9	18
	Agree	7	14
	S. Agree	7	14

Source : Own survey, 2018.

As observed from the above table the respondents were requested to provide their opinion on whether or not the companies have an accident book or similar accident record system and more than half the respondents agree on the issue. The remaining 28% and 4% of the respondents did not agree and neutral on the issue respectively and said that there is a gap on the issue.

The researcher also request respondents to provide their opinion regarding whether or not Company conducts formal an annual review of the worker safety and health management program. 50% of the respondents agreed on the issues where as another similar proportion of respondents representing 44% did not agree on the issue while the remaining 6% of respondents were neutral in the issue that said the company has no taken any action on the issue. One can realize from this that the company is advised to work seriously on the issue.

It can also be observed from the above table that more than 70% of the respondents said that Company did not effectively involve employees in the program reviews. The remaining 16%

said that the company did take any action on the issue. 10% of the respondents were agreed on the issue. It logical to conclude here that with respect to the issue there is a gap that needs serious attention from the appropriate party of the company.

With respect to necessary modification that need to be taken on the program more than half of the respondents said that Company did not modified the programs as needed to correct deficiencies. While the remaining respondents representing 18% said that there no action taken by the company on the issue. 28% of the respondents were agreed on the issue. Therefore, the collected data on this issue showed that there is a gap on the issue and the company is advised to take any important and necessary corrective action with respect to the gap on the issue.

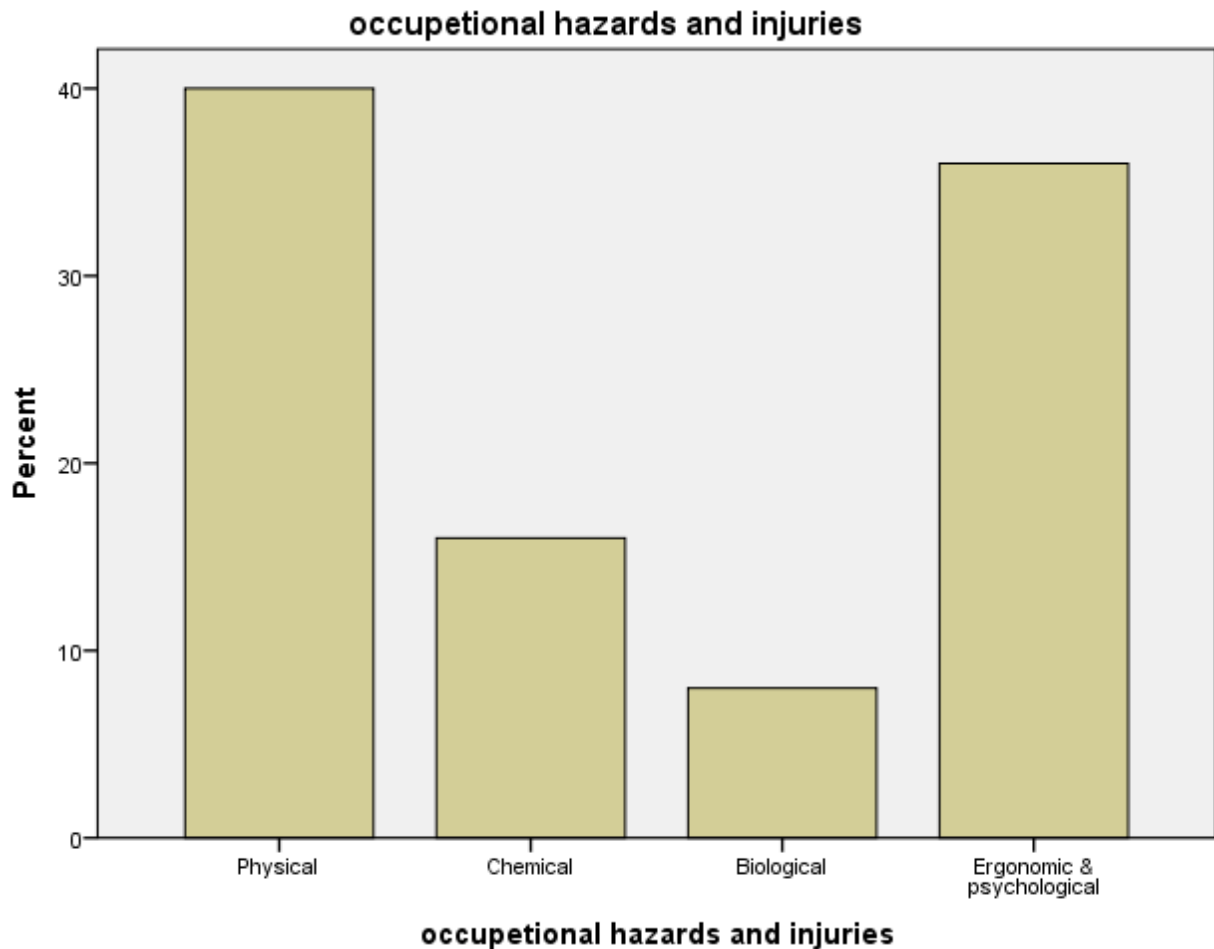
**Table 4.14: Health and safety risks faced by Employees in Habesha Steel**

**Mills Plc**

Hazard	Frequency	Percent
Physical	20	40.0
Chemical	8	16.0
Biological	4	8.0
Ergonomic & psychological	18	36.0

Source : Own survey, 2018.

**Figure 4.1. Occupational hazards and injuries.**



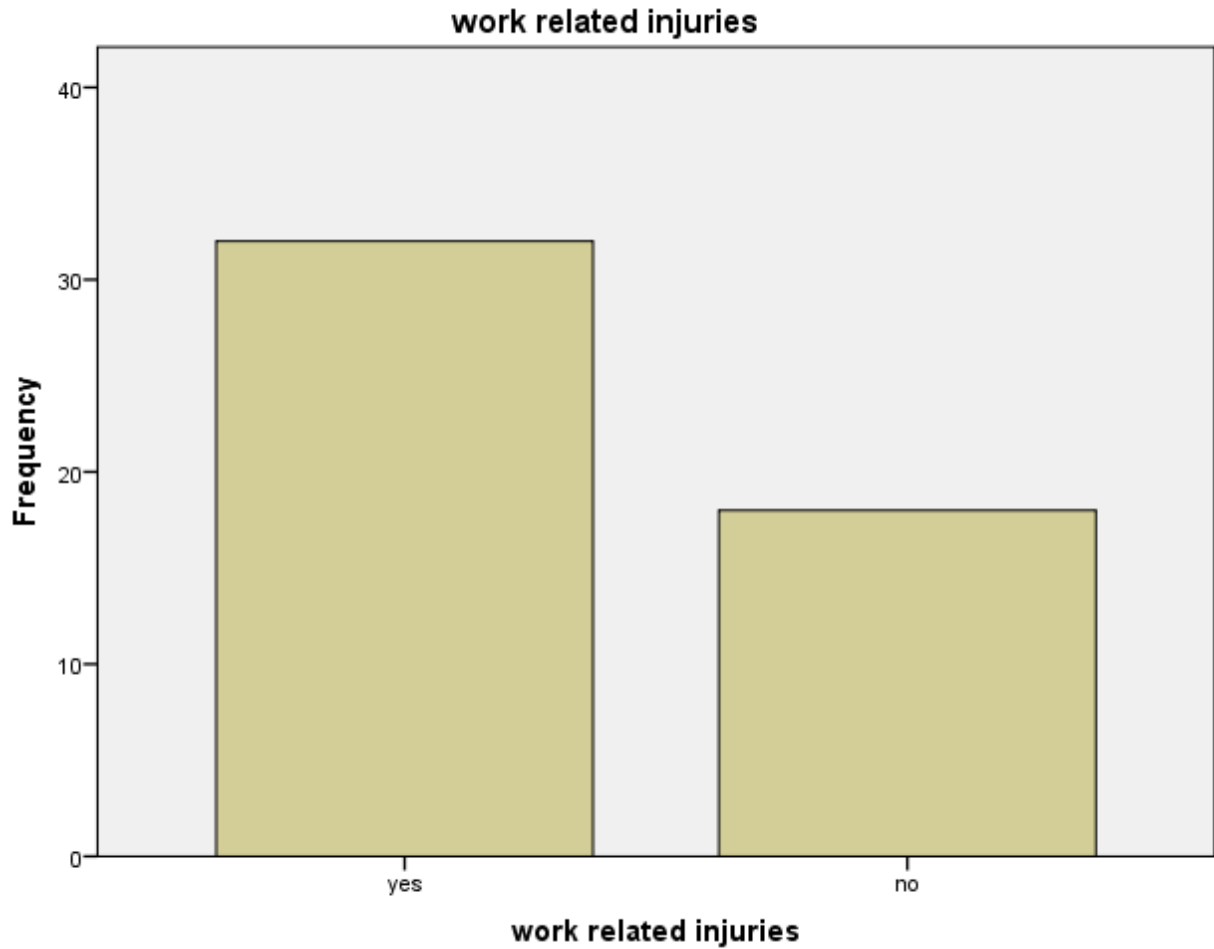
The second major objective of the study was to identify key health and safety risks faced by Employees in Habesha Steel Mills Plc. 40% of the respondents concerns on physical hazards. Among physical hazards too much noise, too much heat and too much pressure that constitute 34.2%, 33.3% and 32.5% respectively were the concern of employees in Habesha Steel Mills Plc. 16 % of the respondents concerns on chemical hazards. Dusts and dangerous chemicals were among the chemical hazards reported by the respondents that represent 82.2% and 17% respectively. 8% of the respondents concerns on biological hazards. Lack of adequate toilet facilities was the major biological hazards reported by most of the respondents. 36% of the respondents were concerned with issues relating to ergonomics and psychological hazards including shift work (16.1%), mental stress due to work (33.9), risk of eye strain (6.3%), too much work outside working hour (35.7%), unsafe equipment or machinery (8.0%).

#### **4.11. Work related injuries and their causes.**

The researcher request respondents to provide their opinion related to injuries faced previously in the past two years. Accordingly, more than half of the respondents report that, they were faced sort of accidents in the previous two years. This showed that the company should work seriously on the issue to achieve zero accident goal of efficient OSH management system.

**Table 4.15: Injuries faced previously in the past two years.**

Existence of injury	Frequency	Percent
Yes	32	64.0
No	18	36.0
Total	50	100.0



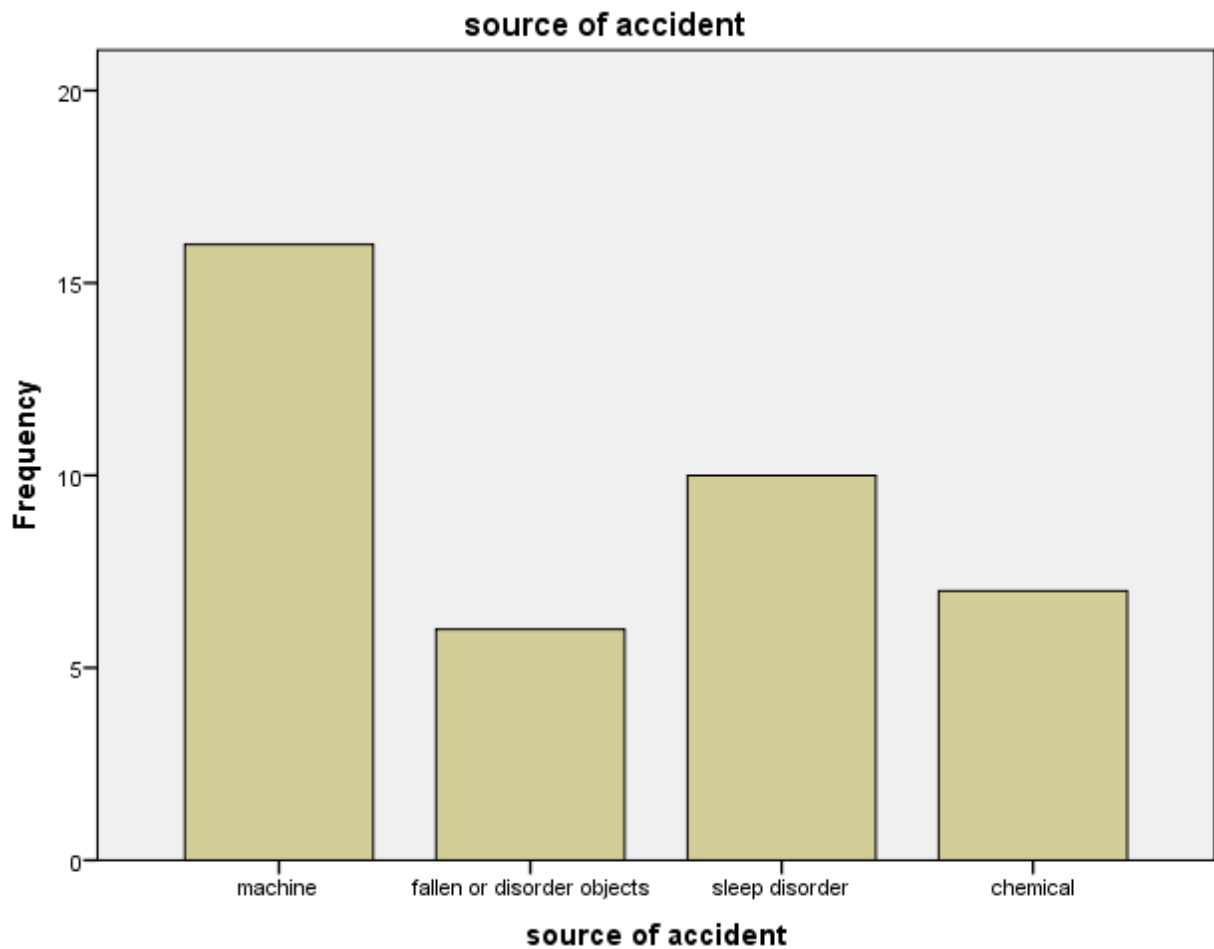
**Figure 4.2. Work related injuries**

**Table 4.16. Sources of accident at work place**

The collected data showed that the sources of accidents in habesha steel mills plc were machines, fallen/disorder objects, sleep disorder and chemicals. As can be observed from the following table accidents related to machines and sleep disorders are the two major sources of accidents in the company representing 41% and 25.6% respectively.

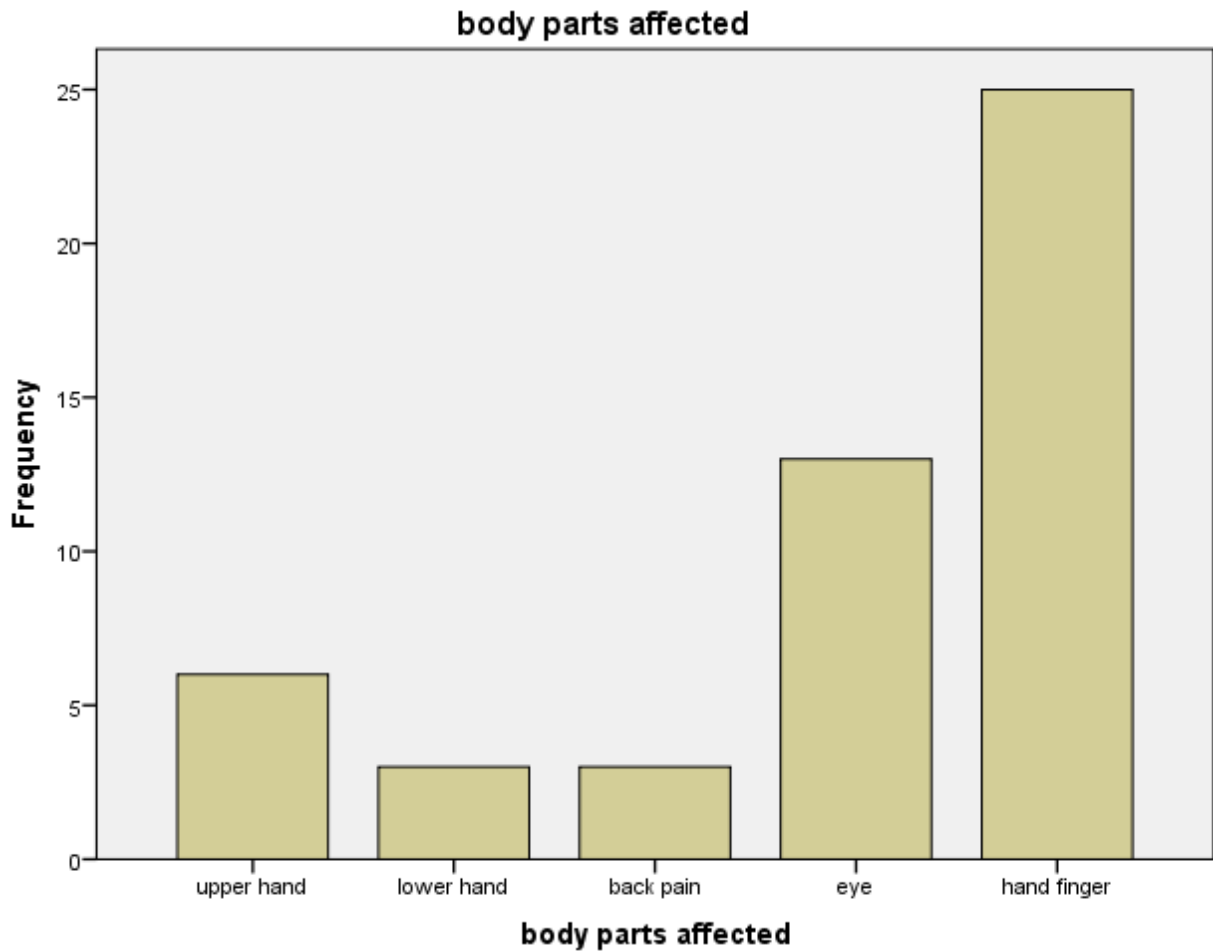
### Sources of accident at work place

Source of accidents	Frequency	Percent
Machine	16	41.0
fallen or disorder objects	6	15.4
sleep disorder	10	25.6
Chemical	7	17.9
Total	39	100.0



**Figure 4.3. Sources of accident.**

**Fig.4.4 parts of workers' body affected due to work related injuries**

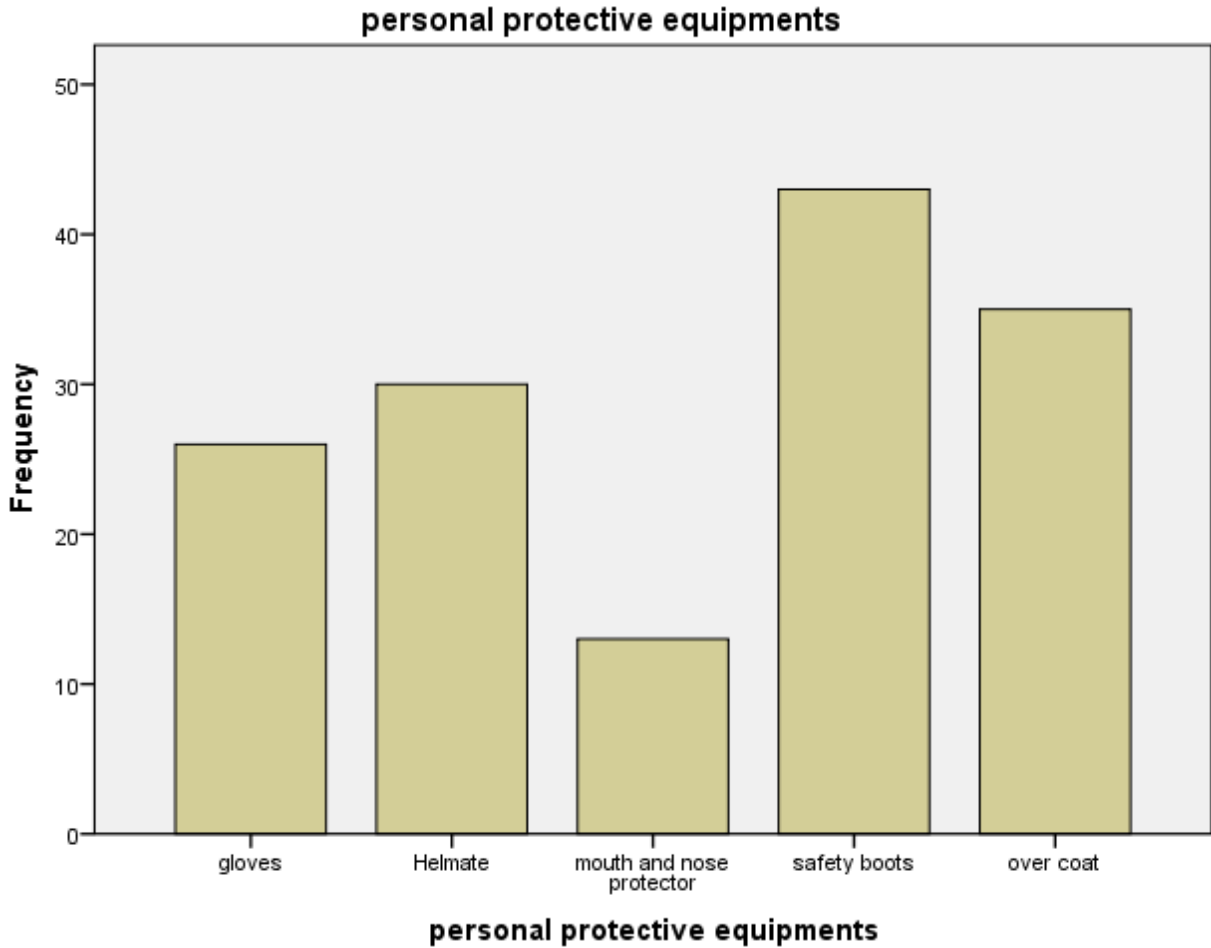


**Source: Own survey, 2018.**

The above figure showed that, responses of respondents on sort of body parts affected due to work related hazards or injuries. The collected data on the issue showed that the body parts of employees that was exposed and affected was upper hands, lower hands, back pain, eye and hand finger that represent 12%, 6%, 6%, 26%, and 50% respectively. It can be realized here that due to the nature of work in this company accidents related to hand finger is high which needs

attention of the managerial personnel of the company to develop efficient methods against the problem.

**Fig.4.5: personal protective equipments at work place**



It can be seen from the above table that, among others the respondents replied that gloves, Helmets, mouth and nose protector and safety boots are the most frequently used personal protective equipments among employees of the company that constitute 17.7%, 20.4%, 8.8%, 29.3% and 23.8 respectively.

### 4.13. The Relationship between OSH management practices and employees safety at work place.

**Table 4.17: Norm for Evaluating the Magnitude of a Correlation.**

S.N. Correlation coefficient (r) Strength of relationship

S.N	S.N. Correlation coefficient (r)	Strength of relationship
1	r<0.33	weak relationship
2	r- between 0.34 and 0.66	moderate relationship
3	r- between 0.67 and 0.99	strong relationship

Source :Somekh and Lewin (2005)

Table -4.3.1 presents the relationship between OSH management practices and employees' safety. to analyse the correlation a 2-tailed Pearson correlation analysis was used. The correlation is significant at 0.05 and 0.01 level (2-tailed). In order to interpret the results of the correlation, Somekh and Lewin (2005) criterion for evaluating the magnitude of a correlation was used as a reference. The criterion is shown in table 4.3.3 above.

**Table 4.18: Relationship between OSH management practices and employees' safety.**

	OSHMP	EPT	ETR	HID	WRI	SL
OSHMP	1					
EPT	.123	1				
ETR	.515**	.083	1			
HID	.899***	.725**	.199*	1		
WRI	.766**	0.795**	.440**	.752**	1	
SL	.817**	.758**	.586**	.80**	.750**	1

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

Correlation is significant at the 0.05 level (2-tailed).\*

#### **4.13.1. Relationship between OSH management practices and work related injuries**

There is significant relationship between OSH management practices and existence of work related injuries at Habesha steel mill Plc..

As obtained in Table-4.3.4 above, it can be seen that the relationship between OSH management practices and work related injuries, the significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level. Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was  $0.766^{**}$  ( $r=0.766$ ), it was greater than 0.667 the strength was relatively strong. Thus, it can be said that there is strong and statistically significant relationship between OSH management practice and work related injury problems in this study. This revealed that if OSH management programs are well practiced, it is possible to manage work related injury problems at work place in the company.

#### **4.13.2. Relationship between injuries related sick leaves and OSH management practices.**

There is significant relationship between OSH management practices and existence of injury related sick leaves at Habesha steel mill Plc.

As obtained in Table-4.3.4 above, it can be seen that the relationship between OSH management practices and injury related sick leaves, the significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level. Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was  $0.817^{**}$  ( $r=0.817$ ), it was greater than 0.667 the strength was relatively strong. Thus, it can be said that there is strong and statistically significant relationship between OSH management practice and injury related sick leaves problems in this study. This revealed that if OSH management programs are well practiced, it is possible to manage injury related sick leaves problems at work place in the company.

#### **4.13.3. Relationship between employees' participation and injury related sick leave.**

There is significant relationship between injury related sick leaves and employees participation in OSH management program at Habesha steel mill Plc.

As obtained in Table-4.3.4 above, it can be seen that the relationship between of injury related sick leaves and employees participation. The significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level. Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was  $0.758^{**}$  ( $r=0.758$ ), it was greater than 0.667 which shows the strength was relatively strong. Thus, it can be said that there is strong and statistically significant relationship between injuries related sick leaves and employee's participation in this study. This revealed that if there is employees' participation in OSH management programs, it will have significant contribution to manage injury related sick leaves at work place in the company.

#### **4.13.4. Relationship between employees' participation and work related injuries.**

There is significant relationship between work related injuries and employees participation in OSH management program at Habesha steel mill Plc.. As can be seen in Table-4.3.4 above, we can observe that there is relationship between Work related injuries and employees participation. The significance level (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level. Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was  $0.795^{**}$  ( $r=0.795$ ), it was greater than 0.667 which shows the strength was relatively strong. Thus, it can be said that there is strong and statistically significant relationship between work related injuries and employees participation in this study. This revealed that if there is employees' participation in OSH management programs, it will have significant contribution to manage work related injuries at work place in the company.

#### **4.13.5. Relationship between employees training and work related injuries**

There is significant relationship between employees training on OSH management practices and existence of work related injuries at Habesha steel mill Plc..

As obtained in Table-4.3.4 above, it can be seen that the relationship between employees training on OSH management practices and work related injuries. The significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level.

Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was 0.440\*\* ( $r = 0.440$ ), it was in between 0.33 and 0.667 the strength was moderately strong.

Thus, it can be said that there is moderate and statistically significant relationship between employees participation on OSH management practice and work related injury problems in this study. This revealed employees participation is necessary on OSH management programs to manage work related injuries at work place in the company.

#### **4.13.6. Relationship between employees training and injury related sick leave.**

There is significant relationship between employees training on OSH management practices and injury related sick leaves at Habesha steel mill Plc.

As obtained in Table-4.3.4 above, it can be seen that the relationship between employees training on OSH management practices and injury related sick leaves.

The significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level.

Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was 0.586\*\* ( $r = 0.586$ ), it was in between 0.33 and 0.667 the strength was moderately strong. Thus, it can be

said that there is moderate and statistically significant relationship between employees participation on OSH management practice and injury related sick leave problems in this study.

This revealed employees participation is necessary on OSH management programs to manage injury related sick leaves at work place in the company.

#### **4.13.7. Relationship between hazard identification and work related injuries**

There is significant relationship between hazard identification practices and existence of work related injuries at Habesha steel mill Plc. As obtained in Table-4.3.4 above, it can be seen that the relationship between Hazard identification practices and work related injuries, the significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level.

Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was 0.752\*\* ( $r = 0.752$ ), it was greater than 0.667 the strength was relatively strong. Thus, it can be said

that there is strong and statistically significant relationship between hazard identification practices and work related injury problems in this study. This revealed that if hazard

identification programs are well practiced, it is possible to manage work related injury problems at work place in the company.

#### **4.13.8. Relationship between hazard identification and injury related sick leave**

There is significant relationship between hazard identification practices and injury related sick leaves at Habesha steel mill Plc. As obtained in Table-4.3.4 above, it can be seen that the relationship between Hazard identification practices and injury related sick leaves. The significance (2-tailed) P-value was less than alpha ( $p < 0.05$ ) at 95% confidence level. Therefore the strength of the Pearson correlation ( $r$ ) between the two variables was  $0.80^{**}$  ( $r = 0.80$ ), it was greater than  $0.667$  revealing the strength was relatively strong. Thus, it can be said that there is strong and statistically significant relationship between hazard identification practices and injury related sick leave problems in this study. This revealed it is necessary to practice hazard identification programs to manage injury related sick leaves.

#### **4.13.9. Challenges to implement OSH management program in the Company.**

The researcher also tried to assess the challenges that hinder proper implementation of OSH practices in Habesha steel mill PLC. Table below shows, frequency result of respondents on the specified parameters. Based on this, insufficient budget allocation for OSH issues was identified as the basic challenge by respondents with 64% of the respondents strongly agree, 20% agree, 12% neutral, 4% disagree. Regarding characteristics of workers (poor literacy or uneducated) as one challenge, majority of the respondents hesitated to consider as a challenge with 42% strongly disagree, 22% disagree, 16% neutral, 14% agree and 6% strongly agree.

With poor work environment issue most of the respondents considered as significant challenge with 32% strongly agree, 42% agree, 8% neutral, 6% disagree and 12% strongly disagree.

With respect to absence of specific regulation related to OSH issues as basic challenge in implementing OSH practices, 56% of the respondents strongly disagree, 32% disagree and the remaining 12% were neutral, implying most respondents believed there is specific regulation on OSH issues and is not a significant challenge.

It can be realized here that, insufficient budget allocation for OSH issues and poor work environment are considered as significant challenges for implementing proper OSH practices in

the organization. But, respondents did not to consider characteristics of workers and absence of specific regulation about OSH issues as challenges for implementing OSH practices.

**Table 4.19: Challenges to implement OSH management program**

Challenges	S. disagree	Disagree	Neutral	Agree	S.agree	Total
Insufficient budget for inspection	0	2	6	10	32	50
%		4	12	20	64	100
Worker characteristics (poor literacy)	21	11	8	7	3	50
%	42	22	16	14	6	100
Poor work environment	6	3	4	21	16	50
%	12	6	8	42	32	100
No specific regulation(OSH issue)	28	16	6	0	0	50
%	56	32	12	0	0	100

Source: survey data own computation May 2018.

#### **4.14. Qualitative Result.**

Regarding the qualitative research, the response of respondents collected through face to face interview was presented below in generalized form. The researcher conducted in depth interview with 8 purposely selected personnel's of the company. With respect to the participant most of them have more than two years of working experience. Regarding occupational safety and health policy Data collected from the respondent showed that, the company has a written policy developed by itself. All of the respondents in the interview agree that the company has a written safety and health policy.

The researcher also asked the interviewee whether or not the company provide investigation program up on accident reports. The majority of the respondents including safety coordinator (that is one among interviewees) report that the company periodically undertakes sort of investigation upon accident reports and all the respondents claim that there is an Investigating Team consisting 7 members responsible to investigate work accident in the company.

It can be realized that, most of the respondents agree that the company has a written policy regarding OSH issues and the investigating team periodically undertakes investigations on work related accidents.

When being asked about whether or not the company provides certain incentive to employee implementing company's Safety Management, most of the respondents disagree on the issue. Therefore, one can realize here that there is no incentive provided to employee implementing company's Safety Management and the company is advised to appreciate those employees that continuously and efficiently implements company safety strategies.

The researcher in the interview process also asked issues related to whether or not the Company management defines effective worker health and safety goals and expectations for the program and more than half the respondents were agree on the issue. Most the respondents in the interview also claim that The Company management effectively communicates its worker health and safety goals and expectations to all those working for or on behalf of the organization.

Respondents in the interview were also interviewed on employees' level of understanding on employers' role and responsibility in the safety and health management system and more than half the respondents agree on this issue with respect to permanent workers. Therefore, one realizes from this that there is a gap with respect to contract workers on the issue. The company is advised to create clear understanding on the issue for all employees of the company regardless of nature of employment.

The researcher in the interview also asked respondents whether or not the company provide continuous training program on Implementing Safety Precaution and more than half of the respondent disagree on the issue. 2 respondents claim that few infrequent, informal and specific on job trainings on how to use PPE's and first aid issues were given to employees in addition to sort of induction and Job-specific health and safety training/education that must be provided to all employees prior to starting a new job/ that were given to employees during employment. It right to conclude here that there is a gap on training given to employees on OSH on a continual issues. This is also match with the data collected through questionnaires and the company is advised to give continuous training on OSH issues.

Most of the respondents agree with the fact that managers consult employees about their health and safety concerns. Most of the interviewee claim that insufficient budget for safety and health issues of employees and carelessness of some works to use PPE's continuously on job are the two major challenges management encounter with regards to health and safety management in the organization.

The researcher in the interview process also asked the interviewee direct question related to second specific objectives of the research and the respondents claim and confirm that physical hazards are the major risks related to works of the company of which the respondents said that excessive heat, excessive noise and Dust are the significant ones.

The researcher in the interview process also asked respondents the extent to which the company conducts all inspections and exposure assessments required by OSHA standards and most of the respondents claim on this issue that what is being performed yet is not satisfactory, but the company conducts sort of inspection up on emergency.

The respondents also claim that regarding the availability of all controls required by applicable OSHA standards there is a gap. Therefore, both the company and appropriate government officials in the area are advised to take corrective action on the issue. The interviewees during interview also claim that there is a gap with respect to level of understanding of employees of the company on the elements of the worker safety and health management system and how to participate in it.

## Chapter Five

### Summary, Conclusion and Recommendations.

#### 5.1. Introduction.

This chapter presents key summary, Conclusions and recommendations. The key findings developed from data analysis were presented. Based on the finding recommendation have been forwarded on the issue for concerned party. Finally, Conclusions of the entire study were presented.

#### 5.2. Summary.

In line with its objectives the following findings have been developed from the study.

##### 5.2.1. OSH Management practices.

One of the objectives of this study was assessing the existing OSH management practices of Habesha Steel Mills Plc. Most of the respondents agree that management of OSH with respect to OSH policy and plan is good.

##### 5.2.2. Key health and safety risks faced by Employees in study area.

As the study result showed most of workers in Habesha steel mills Plc faced work related injuries in the previous two years. Physical and Ergonomic hazards are the two major hazards in the company. Most of the accidents in the company are related with machines and sleep disorder. The findings of the study indicated that Biological hazards are not significant hazards in the company. It can be concluded from the study that Physical hazards are the major causes of Occupational hazards in the study area and the major health and safety risks faced by workers in the company were machine related accidents, sleep disorder, chemicals and fallen or disorder objects.

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##### 5.2.3. Challenges to implement OSH management program.

One major objective of the study was to identify challenges for proper implementation in Habesha steel mills plc. As the the study showed there is insufficient budget allocated on health and safety issues in the Habesha steel Mills plc. It can be concluded that insufficient budget and poor working environment are the major challenges that the company faces for proper implementation of OHS management system.

The nature of workers of and availability of specific regulations with respect to Occupational safety and health management system are not significant challenges.

### **5.3. Conclusions.**

The summarized findings in the aforementioned section indicate gaps in practices of Occupational health and safety in Hanesha steel mills plc. Though the company has a written policy and plan with respect to Employees Occupational health and safety and also there is program evaluation and control, Employee participation, Employee training and hazard prevention and control issues needs serious attention of the concerned parties. Physical and Ergonomic hazards are the two major hazards in the company respectively. Insufficient budget and poor working environment are the major challenges that the company faces for proper implementation of OHS management system.

### **5.4. Recommendations.**

Based on the study findings and the above conclusions the following recommendation is forwarded.

- Written policy and plan with respect to OSH is not an end with respect to OSH management system, it is important if Habasha steel mills plc steel work on continuous trainings on the issue with active participation and involvement of workers from planning to program Evaluation and improvements.
- Management needs efficient budget. The top management and concerned party in the company should seriously work on supporting OSH management system with necessary budget and other basic requirements.
- The concerned party in the company particularly management bodies should work on developing treatment mechanism on physical hazards within this company.

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# **Appendices.**

## **Appendix 1: Questionnaires.**

Addis Ababa University School of Postgraduate Studies

Faculty of Business and Economics, Department of Management MBA Program.

A Questionnaire prepared for Assessing the practices of Occupational health and safety: Case of Habesha Steel Mills Plc.

 **Please assure that your personal responses will be treated with utmost confidentiality.**

**Dear Sir/Madam**

I have been undertaking “MBA Thesis” work on the topic assessing the practices of Occupational health and safety: Case of Habesha Steel Mills Plc. I kindly request your cooperation to complete the attached questionnaires. I have already contact your company and I have allowed communicating with you. The purpose of the study is purely academic and is not in any way an attempt to intrude in to your privacy and your responses are very confidential. You have been randomly selected to participate in this survey. I believe that your participation is

Critical for this study and will significantly contribute to better understanding of health and safety performance. Your cooperation by responding truthfully and sincerely to this questionnaire is very essential to achieving the thesis objectives. This research will be beneficial to you and your organization. Thank you in advance for your collaboration and interest to fill the questionnaire honestly and sincerely there by for your contribution to success of the research. I look forward to your prompt response. This assessment questionnaire has five parts here under:

- Part I: Personal and General Information.
- Part II: Level of implementation of OSH management system.

- Part III: Work related risks and injuries.
- Part IV: Challenges in implementation of OSH policies and Strategies.
- Part V: Contribution of health and safety practices to organizations performance.

I kindly request you to read the instruction of each section before responding and you are not expected to write your name. For any question and further explanation please contact me at: **0911 16 64 31/ 0913 71 98 82** or e-mail: **BorifyadAB15JO@yahoo.com**.

Kind Regards,

Endale Regasa

## Part One: Questionnaires for employees of the company.

### A. General Information.

This section is aimed to get information regarding respondents demographic back ground. Tick the box which answers is best describing you. Please provide “X” on space provided.

1. What is your Gender? M  F
2. What is your age? Below 25  25- 35  36-45  46-55  > 55
3. Level of Education
- Elementary school  High School  Certificate  Diploma
- BA/Bsc degree  MA/Msc Degree and above
4. Marital status
- Single  Married  Divorced  Widowed
5. How long have you been working in this organization?
- Less than 2 year  2-4 year  4-7  7-9 year  > 9 years
6. Nature of employment
-



Full time      Part time      Contract      Daily labor

7. Your current salary \_\_\_\_\_

**B. Level of implementation of OSH management system: OSH Implementation assessment questionnaire for employees of the company.**

This section is aimed to get information regarding degree to which OSH is implemented in study area. Please indicate the extent of your agreement with the following statements by ticking “X”. You provided with the five options from **no action** to **strongly agree**.

- **No action:** implies the company has not taken action on the issue.
- **Strongly Disagree:** implies the company has taken very few actions but has done it so ineffectively or infrequently
- **Disagree:** implies the company has taken few actions but has done it so ineffectively or infrequently
- **Agree:** implies the company has taken actions which has been effective some of the times..
- **Strongly agree:** implies the company regularly takes the described action and does it so effectively.

S.N.	Items	1	2	3	4	5
<b>A</b>	<b>Management of the OSH program.</b>					
1.	The company has a clear written plan regarding Occupational Health and Safety of its workers.					
2.	The organization has a written health and safety policies and strategies that include Programs and procedures for environmental, health, safety (EHS) and working conditions.					
3	The company management implements a written policy supporting and mandating the safety and health management system.					
4	The organization's written health and safety policy or programs is available to all employees.					
5	When supervisors see an employee working in an unsafe manner, they immediately take action					
<b>B</b>	<b>Employee Participation.</b>					
1	The company involves employees in defining and developing the worker health and safety program structure					
4.	Employees are active in participating in hazard detection, prevention and control activities.					
5.	The company well comes and acknowledges reports of injuries, illnesses, hazards, or other concerns quickly.					
6.	The company involves employees' representatives in workplace health and safety risk assessment, inspections and incident investigations					
<b>C</b>	<b>Employee training</b>					
1	Job-specific health and safety training/education must be provided to all employees prior to starting a new job?					
2.	The company organizes and arranges for Occupational Safety and Health training, work shop and seminar.					

3	Employees Know their rights and obligations related to OSH and they have awareness on work related injury compensation.					
4	Company workers have a copy of health and safety manual and orientation programs for health and safety provided by the organization.					
<b>D</b>	<b>Hazard identification.</b>					
1	The company undertakes inspection in the workplace physical environment to identify conditions that pose or could pose a worker safety or health concern and informs workers of hazards happened					
2	Managers ask employees about worker hazards and safety concerns in their work areas during rounds.					
3	Company identifies hazards associated with emergencies and non-routine operations.					
<b>E</b>	<b>Hazard prevention and Control issues</b>					
1	There is hazard control plan in place.					
2	The company promptly installs controls when a hazard is identified.					
3	The company has informed employees of the controls implemented and planned for hazards they may face.					
4	Employees are provided with prescribed means and personal protective gear.					
<b>F</b>	<b>Program Evaluation and improvement.</b>					
1	The organization have an accident book or similar accident record system					
2	The Company conducts formal an annual review of the worker safety and health management program.					
3	Company involves employees in the program reviews.					
4	Company modifies the program as needed to correct deficiencies.					

**Section C: Questionnaires related to work related risks and injuries.**

1. Have you ever faced any injury or accident in the previous two years related to your work?

Yes [ ]                      No [ ]

5. What kind of Employees injuries or accidents is familiar in this company? Is it **Physical** hazards, **Chemical** hazards, **Biological** hazards, **Ergonomic** hazards or **Psychological** hazards? Below is a list of health and safety hazards and unpleasant working conditions. Please indicate the ones about which you are concerned in your organization by ticking the relevant boxes below.

**A. Physical hazards:**

- Too much noise
- Too much vibration mists
- Poisoning
- Too much light
- Too low light
- Too much heat
- Too much cold
- Too much pressure

Other physical hazard: -----  
\_\_\_\_\_  
\_\_\_\_\_

**C. Biological hazards.**

- Bacterial
- Fungal
- Viral
- Lack of adequate Toilet facilities
- Biological agents of Infectious disease

Other Biological hazard: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B. Chemical hazards**

- Toxic gas
- Dusts
- Fumes
- Vapors
- Mists
- Dangerous chemicals
- X-rays or radiations

Other (Please specify): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**D. Ergonomic & Psychological hazards.**

- Strenuous work
- Bad work design
- Shift of work
- Risk of physical strain
- Awkward pressure &/ Repetitive motions
- Mental stress due to work
- Risk of eye strain
- too much work outside working hour
- Unsafe equipment or machinery

Visual conditions.

Other (Please specify): _____ _____ _____ _____
--

<i>-Please write other work related risks and injuries related to work in this company that I don't provide for choice above</i> _____ _____ _____
--

Which facilities needed for your work is not available at work place that expose you for occupational risks -----  
 -----  
 -----

**Section C: Questionnaires regarding Challenges in implementation of OSH policies & Strategies.**

Please indicate the extent of your agreement with the following statements by ticking “X” on the Scale that most nearly reflects the extent to which you agree or disagree. Using this key:

- 1 =Strongly Disagree (**SD**).
- 2 =Disagree (**D**)
- 3 =Indifferent (**ID**)
- 4. Agree (**A**).
- 5. Strongly agree (**SA**)

S.N.	Statements	SD	D	ID	A	SA
1	Insufficient budget for carrying out regular inspections					
2	The characteristics of workers (illiterate and uneducated)					
3	Poor working environment					
4	No specific regulations/legislations on OHS issues					
5	Lack of trained human resource					
6	There is lack of awareness					

-Please shortly list/ explain key **problems or challenges** that your company faces in implementing employee health and safety policies and strategies -----

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**Part Two: Interview Guide for Management.**

<b>S.N</b>	<b>Statement</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
<b>1</b>	The company has safety and health policy.			
<b>2</b>	In increasing the safe work level, does your company have standard forms for safe work quality records?			
<b>3</b>	Does your company provide Investigation Program upon accident report?			
<b>4</b>	Is there an Investigating Team to investigate work accident in your company?			
<b>5</b>	Does your company provide certain incentive to employee implementing company's Safety Management?			
<b>6</b>	The Company management defines effective worker health and safety goals and expectations for the program.			
<b>7</b>	The Company management effectively communicates its worker health and safety goals and expectations to all those working for or on behalf of the organization.			
<b>8</b>	Employees understand the employers' role and responsibility in the safety and health management system.			
<b>9</b>	On recruiting new employees, does your company look upon safety Certification?			
<b>10</b>	Does your company provide training program on Implementing Safety Precaution.			
<b>11</b>	Are you satisfied that people requiring specific health and safety information, instruction, supervision, training and consultation have Received it? Eg on dangerous machinery,etc			
<b>12</b>	Do you consult employees about their health and safety concerns			
<b>13</b>	What challenges does management encounter with regards to health and safety management in the organization?			

14	Regarding to hazard prevention and control all controls required by applicable OSHA standards are in place.			
15	Company employees understand the elements of the worker safety and health management system and how to participate in it.			

**The End!**

**I thank you for your Cooperation!**

## Appendix 2. Correlations

		Mgt of OSH program	Employee participation	Employee training	Hazard identification	work related injuries	sick leave due to work related injuries
Management of the OSH program	Pearson Correlation	1	.123	.515**	.899**	.766**	.817**
	Sig. (2-tailed)		.052	.000	.000	.000	.000
	N	250	250	200	150	50	50
E. Participation	Pearson Correlation	.123	1	.083	.725**	.795**	.758**
	Sig. (2-tailed)	.052		.240	.000	.000	.000
	N	250	250	200	150	50	50
E. Training	Pearson Correlation	.515**	.083	1	.199*	.440**	.586**
	Sig. (2-tailed)	.000	.240		.015	.001	.000
	N	200	200	200	150	50	50
Hazard identification	Pearson Correlation	.899**	.725**	.199*	1	.725**	.800**
	Sig. (2-tailed)	.000	.000	.015		.000	.000
	N	150	150	150	150	50	50
work related injuries	Pearson Correlation	.766**	.795**	.440**	.725**	1	.750**
	Sig. (2-tailed)	.000	.000	.001	.000		.000
	N	50	50	50	50	50	50
sick leave due to work related injuries	Pearson Correlation	.817**	.758**	.586**	.800**	.750**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	50	50	50	50	50	50

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

\* . Correlation is significant at the 0.05 level (2-tailed).

