ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

EFFECT OF OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT PRACTICE ON EMPLOYEE COMMITMENT (THE CASE OF ETHIOPIAN PHARMACEUTICAL MANUFACTURING COMPANY S.C (EPHARM)

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A Research Thesis Submitted to Addis Ababa University College of Business and Economics School of Commerce for the Partial Fulfillment of the Requirements for Master's Degree in Human Resource Management

ADVISOR: ADANE ATARA (PHD)

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Effect of Occupational Safety and Health Management Practice on Employee Commitment

(The Case of Ethiopian Pharmaceutical Manufacturing Company (EPHARM) SC)

By Seada Redi

Approved by Board of Examiners

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Declaration

The undersigned, declare that this thesis entitled Effects of Occupational Safety and Health Management Practices on Employee Commitment is my original work, under the guidance and support of the research advisor, Adane Atara (PhD), and that all source materials used for the study have been duly acknowledged. This study is offered for the partial fulfillment of the degree of Master of Arts in Human Resource Management and has not been submitted for any degree in this university or any other university so far.

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Signature _____

Date _____

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Advisor(PHD)

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Foremost I would like to throw my overwhelming complaint to the almighty Allah for uncountable blessings in my life and being faithful helped me a lot I always trust you, whatever it is that was my mind then i am finishing my master degree now Alhamdulillah!

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PI: Pharmaceutical Industry

ILO: International Labor Organization

OSHMP: Occupational Safety and Health Management Practice

PPE: Personal Protective Equipment

SPSS: Software Package for Social Sciences

R&D: Research and Development

GMP: Good manufacturing practice

Abstract

Occupational safety and health management practice plays a vital role in maintaining safety and health environment of employees, the purpose of the research was to identify the effect of occupational safety health management practice of employee involvement, training awareness on OHS and leadership commitment on employee commitment at Ethiopian Pharmaceutical Manufacturing SC. Descriptive and explanatory research design was used to conduct the research by using simple random sampling method. A survey questionnaire was distributed to 120 production unit workers and 92 respondents were participated in the survey. The collected data was processed with SPSS version 20.software.

Correlation analysis has identified there is positive relation between occupational safety and health management practice and employee commitment especially training awareness on OSH is more correlated with employee commitment. Likewise regression analysis verified that P value 0.028(2.8%) of training awareness on OSH and P value 0.026(2.6%) of leadership commitment have significant effect on employee commitment however P value 0.910(91%) of employee involvement has no significant effect on employee commitment which is greater than P value 0.005(5%).The Durban Watson assumption clearly confirmed that the residuals are independent and uncorrelated each other thus assumption of independency assumption between residuals was met and the assumption was satisfied at 2 point.

On the other hand the research found that lack of management commitment and lack of resources to deliver safety and health practices are the main challenges for the company. Similarly, ergonomic work factor, design and layout of work flows and poor ventilation and pressure are appear to be the most causes of accidents in EPHARM.

Employee commitments of the company have a high degree of personal importance in the minds of employees and perceived their belongings to the company likewise most of employees also perceived the risk of leaving the company while others admitted that one of reasons leaving this

organization is lack of available alternatives as well as consent on employees must always be loyal to his or her organization and taught be loyal to the company.

Keywords: ***Occupational safety and health management, Employee commitment, Pharmaceutical Industry***

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Referring to Shivani *et al.* (2019) indicated health and safety is at work are one among the foremost vital aspects of human concern. It aims to adapt the operating atmosphere to employees for the upliftment and prolongation of the very best level of mental, physical and social well-being of employees. In related to that occupational health and safety (OHS) or workplace Health and Safety (WHS) are two localities involved in work also safety and health programs at work embrace making a secure and healthy work atmosphere.

Referring to Reese (2003), it was in 1900 workers' compensation became reality holding the employers responsible for every bodily injury. Then, employers became interested in the matter and started to count deaths and injuries. But prior to that employers were blaming workers for negligence and rules were in their favor. Considering the evolution and awareness aspect of the OS&H, in 3000 B.C. Egyptians provided first aid materials to protect workers from gold and silver fumes. Hammurabi stated compensation for permanent injury in 2000 B.C. Hippocrates, history's most famous physician, discovered that stone cutters had breathing problems.

According to Abrahms (p, 51, 2001) the years from approximately 1890 to 1920 were a remarkable period in the history of health and welfare in United States. They were marked by the struggled for workers compensation, factory, inspection laws, child labor protection and eight – hour workday. The emergence of various historical occupational safety and welfare has led to the establishment of international labor organization (ILO) in 1919.

Workers' rights to a safe and healthy working environment are outlined in Article 42/2 of the FDRE Constitution from 1995, Proclamation No. 4/1995. The National Occupational Health Policy and Strategy, the Occupational Health and Safety Directive (2008), the Occupational Health and Safety Policy and Procedures Manual, and the On the Job Occupational Health and Safety Control Manual for Inspectors (2017–18) are additional legal frameworks that pertain to OHS. The National Health Policy Statement lists OHS promotion as a priority as well (1993). OHS is the responsibility of the Ministry of Labor and Social Affairs (MOLSA) and its regional counter parts at both the federal and regional levels.

According to the International Federation of Pharmaceutical manufacturers and Associations (IFPMA), International Labor Organization First edition (2018) as indicated employment in pharmaceutical industry has increased steadily in recent years, rising by almost 39 percent over period 2006-2014 and leading pharmaceutical producers have seen significant growth in employment. In 2014 alone the industry employed over 5 million people worldwide. Likewise, in EU employment increased over 34 percent between 2000 and 2016 from 554,186 to an estimated 745,000 and increased to 795,000 in 2019.

In context of Ethiopia, referring the article "Bringing Industrial and Health Policies Closer : Reviving Pharmaceutical Production in Ethiopia" (2016), Ethiopian pharmaceutical industries are a key aspects of the broader approach, consequently, the current investment climate of the country is considered propitious, since the country has sizeable young and educated, trainable human resource and large number of inexpensive laborers while the size of the industry small to medium and most use labor intensive, step by step manual manufacturing with semi-automated production lines.

Gebre Mariam *et al.* (2016) have reviewed that recently the Ethiopian pharmaceutical industry consists of 15 pharmaceutical manufacturers, which nine produce medicines, one manufactures empty gelatin capsules and the rest are engaged in producing medical supplies such as syringes, absorbent cottons, gauzes, bandages and sanitary products. Also indicated Ethiopian pharmaceutical manufacturing company (EPHARM) is the first ever established pharmaceutical manufacturing plant in Ethiopia founded in 1964 as joint venture by the Ethiopian government and British company, Smith& Nephew then later was superseded by Teva Jerusalem of Israel and later nationalized to socialistic policy of the military regime in1975 to1993, finally EPHRM was established as public share holding company and recently own to board Chairman of Dr. Mohammed Nuri .

According to Shanewaz *et al.* (p, 4, 2020) in their study as referred to Testa (2001), employee commitment is one of the most researched topics in the area of organizational behavior and education because of their impact on behavior at work such as compliance with directives effective performance in their jobs or lower turnover absenteeism etc.

Kumahlor *et al.(*p,2 2017) have cited Kalian's (2012) Statement which supported that human resource managers and practitioners are shall be seen as champions of health and safety also

added a statement that human resource professionals have important role to play in operation of administrating, communicating ,facilitating and championing health and safety process.

Business is achieved through the commitment of employees and relations based on mutual benefits. Nithya (2021) employees who are committed to their organization generally feel a connection with their organization, feel that they fit in and, feel they understand the goals of the organization. It is about strong desire to remain a member with strong belief in acceptance of the values and goals of the organization. Commitment should be the interest of both parties under consideration. Having magnificent committed management teams who are working on the safety and health management is a vital asset that any industry cannot achieve it and care about the workforce that brings remarkable business achievement to the company. Additionally, orientating and training the employees on hazard or accident prevention is a responsibility of the employer and also employees must obey the instructions displayed on cautions area as it is a preventive practice in occupational safety health management. John sterling (p.15, 2014) has cited Bragg's (2002) idea on management commitment that the four core tenets of employee and management commitment and synergy should present to success the OSH program.

Considering all the above statements, the researcher is interested in analyzing the effect of occupational Safety and health management Practice on Employee Commitment in Ethiopian pharmaceutical manufacturing company (EPHARM), the pioneer for the nation's pharmaceutical industry. Moreover, the research examines the current safety and health practices and management of Ethiopian pharmaceutical manufacturing company (EPHARM) mainly targeting employees from operational units.

1.2Statement of the Problem

According to issues paper for global dialog forum on challenges for decent and productive work arising from digitalization in the chemical and pharmaceutical industries (2018), indicated as that of chemical industries, pharmaceutical industries are important to the economic development of all ILO member states and key to the achievement of the 2030 Agenda for Sustainable Development also it provides decent and productive work for workers in industries relates in particular to sustainable development Goal 8, to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. However, scholars or studies argued how pharmaceutical industries have unsafe working conditions led to accidents

and damages for the employee and the company, following that studies have shown the importance of occupational safety and health management practice for creating productive work environment in the pharmaceutical industries. The following problems have been reviewed by researchers.

An article on "occupational health and safety of workers in pharmaceutical industries" (2019) has shown that pharmaceutical business is exclusive in that its employees deal with hazards that may have biological impact. The article added that large scale pharmaceutical agencies have equipped numerous safety and fitness applications that focus on both private and corporate responsibility. They also extend categorization module called a tamper strip to categorize the chemical and biological hazards in their facility. Moreover, general health risks with in pharmaceutical business embrace exposure to dirt and noise, repetitive motion disorders, methanol exposure, and ultraviolet illumination exposure.

In addition to that Kaynak *et al.* (2016) have revealed, recent firm injuries encouraged different enterprises to put more emphasizes on firm safety and health practices also pressure on the body, business and the social and social environment plays an important role in this regard. In related to that the examination has researched firm safety and health rehearses in five measurements, i.e. health techniques and rules on risk management, safety and health, emergency treatment support and preparing, firm mishaps precautionary action, and firm health support.

Similarly, Wigmore (2009) found that the exceptional way to stay away from the problems is to eliminate dangerous substances and use available substitutions (choice of protected or least toxic substances). And Yusof (2008) concluded in his findings about that manufacturing contributes to the country's financial increase and gives a number of employment opportunities. And also new technologies and fewer machines are also being installed in offices the place occupational security and health must be ensured in order to stop similarity accidents at work.

Despite there was no summarized reports on accidents, the research has tried to accumulate from different documents and found 7 occupational accidents in 2022 alone and 14 accidents till May 2023 which means 21 accidents have been occurred to employees also found the accidents include soft tissue injury, fracture of the knee, ankle sprain, swelling and lower back pain, similarly the place of accidents were olintment department or production processing parts.

Consequently, the occupational hazards and accidents are resulted the company to compensate insurance costs, medical examinations and costs related to chronic disease and accidents caused from accidents.

Analyzing the above evidences the study examines the gap on occupational safety and health management practices at EPHARM, especially,the challenges implementing OSHMP practices,identifying causes of accident and hazard of the company to give directions for improvements on accident prevention.In the same manner, it also identifies the correlation between occupational safety and health management practices and employees commitment.

1.2.1. Background of the Company

Ethiopian Pharmaceuticals Manufacturing Sh. Co. (EPHARM) is a pioneer local pharmaceutical manufacturing company, has been the only local pharmaceutical manufacturing company serving the whole country for five decades which founded in 1964E.C .It is headquarter is located in Nifas Silk Lafto sub city, Addis Ababa. EPHARM is currently producing different dosage forms, which makes it peculiar from many of the local pharmaceuticals manufacturers. EPHARM has been producing high quality and price- competitive drugs that have addressed the critical health problems of the Ethiopian people for more than fifty years. The products encompass Antibiotics, Infusions, Topical drugs, Drugs that act on central nervous system (CNS), Gastroenterological drugs, Vitamins, Anti-Allergic, Analgesics, Anti-Tussives and many more. The company has eight production lines, fully equipped laboratories, and utilities capable of producing different dosage forms in capsule, tablet, vials, sachets (oral powders), liquids (syrup), ampoules, large volume infusions, and ointments.

EPHARM's envision is being one of Africa's top three pharmaceutical companies by 2025. Its mission is to manufacture high quality, customer-focused, affordable, and research-based pharmaceutical products using modern technology to ensure sustainable profitability and maintain broad market share both nationally and globally. Additionally, EPHARM's values are include maintaining customer satisfaction through serving quality products or services, priority to meet international quality standards throughout it's a manufacturing process,uphold its corporate social responsibility,giving priority to the importance of working culture in the company,due consideration for green environment throughout its operation,it strongly believes in

its employees' merit-based career development and appropriate incentives and it considers the proper utilization of resources.

Despite, the company has massive rivalry from other local manufacturers and importers in the market are getting higher these days, EPHARM is able to keep up its big market share.

According to the official site, EPHARM has a project for expanding its manufacturing facility and leased 40,000 square meters of land in the vicinity of Addis Ababa. Currently preparations are underway to build on the green field a brand new pharmaceutical factory that meets GMP standards. Also the new factory is intended to focus on manufacturing of high-quality, demand-driven, and price-competitive medicine and medical equipment and to increase its manufacturing capacity by many folds. EPHARM S.C. is now working very hard to introduce in the newly envisaged factory a state of the art manufacturing technology and innovative system of production.

The research has gone with a mile to find out what occupational safety and health management practices are being implementing in this pharmaceutical company, there are operating unites who are working in the production area and risking their safety and health condition which is their daily working cycle is interrupted with biomedical chemicals also nonchemical hazards mostly ergonomic hazard issues.

The research found from R&D department, the production unit produces phenobarbitone tablet, oral solution and other drugs which is produced with huge processing machines that produce different drugs and each drugs has it is own processing units or machines, in order to identify accidents and hazards prone to safety and health condition of employees the research has used commonly processing parts and departments. These process parts include dispensing of input materials, syrup base materials, filtration, compounding, microbiology and IPQC testing, physicochemical testing, filtration bottle filling and bottle labeling or packaging.

Furthermore, the company's safety and health committee is under reconstruction, previously have been working on accident prevention and maintaining healthy environment for the employees. Currently the company has one safety and health officer who is working on risk assessments, identification of hazards, risk level, precaution measures, action plan, monitor the implementation of the measures and written risk assessments. The risk assessment have

identified source of hazardous within all the operations include hazardous substance, infrastructure, machinery and equipment workforce, health management, transport and vehicles. Besides the company use integrated induction and training programs which is given by the HR department and safety officer on one time bases at the time of employment. The training includes safety rule and work procedure(6),incident report(7), first aid and blood borne procedures(7), emergency exist (8), firefighting(9), material handling and utensils using(10),PPE using(11), potential occurrence of hazards(12),hazards communication(13),emergency contacts,safety disciplines(14), tour of facility(15) and GMP,QMS,EMS and work procedures(16).

1.3 Research Questions

The research questions the study attempts to answer are listed below:

- What is the effect of occupational safety and management practice on employee commitment?
- How is the current occupational safety and health management practice of Ethiopian pharmaceutical manufacturing company?
- What is level of the employee commitment?
- What is the relationship between employee safety health management practice and employee commitment
- What are the challenges implementing OSHM practices in EPHRM?
- What are the major causes of occupational accidents and hazards in EPHRM?

1.4 Research Objectives

1.4.1General Objective

The general objective of this research is to determine the effect of occupational health safety management practices on employee commitment in Ethiopian pharmaceutical manufacturing company (EPHARM).

1.4.2 Specific Objectives

- To identify the occupational safety and health management practice of employee involvement ,training awareness on OSH and leadership commitment on employee commitment
- To identify employee commitment on safety and health management practice

- To examine the association between occupational safety health management practice and employee commitment.
- To identify occupational accidents and causes and challenges implementing OSHMP in EPHARM.

1.5 Significance of the Study

Employees of Ethiopian pharmaceutical manufacturing company (EPHARM) are the primary beneficiaries of the findings of this study. Pay and other benefits will not be interrupted as a result of accidents or diseases related to occupational injuries. Similarly, the employee's family will enjoy a decent and secure way of life as a member of the community. These employees have a sense of belonging in a safer and more conducive work environment, which reduces absenteeism due to injuries and increases productivity, resulting in a higher service-profit chain. This benefits both the pharmaceutical company's revenue and the income of its employees. As a result, the pharmaceutical manufacturing company maintains a positive image in society as well as with customers and consumers, allowing it to become an employer of choice. Customers, on the other hand, receive consistent delivery of high-quality medicines, increasing their loyalty to the pharmaceutical company. As a best fit approach, other pharmaceutical manufacturing companies can benefit from this research as well. As a student of HRM and a practitioner in the same field, this is an excellent opportunity to broaden one's horizons on the subject under consideration. This could be fertile ground for other researchers interested in conducting similar studies in the area.

1.6 Scope of the Study

The research determines that the importance of occupational safety and health management practices for employee commitment has positive effect, this can be evidence by referring Patricia *et al.* (2021), research as referred to O 'Connor *et al.* (2011) point that there is a link between management safety measures and the occurrence of accidents, as result management engage in workplace safety and health is viewed as critical to employee safety performance. Hence it is of the essence to assess the role that commitment to satisfy by management ensures the performance of the job is safe and safety programs play in employee commitment. This research has been undertaken to identify the impact of occupational safety and health include employee involvement, training awareness on OHS and leadership commitment on employee commitment

at Ethiopian pharmaceutical manufacturing company, in this manner the research problem statements have been formulated to answer the given research questions.More over the research has been conducted specifically in Sarbet and Bisrategabrel production unitsof EPHARM,92 employees were participated in the survey. There search has cause-effect theme,quantitative data collection method through survey questionnaire and empirical studies were applied, analyzed and interpreted with using descriptive percentage mean analysis. The research project has been run from December 2022 to May 2023.

Moreover a few empirical studies on the pharmaceutical industries have been cited as baseline evidence on the delimitation.

According to Irene*et al.* (2015), while the health status of chemical workers who manufacture non-pharmaceutical chemicals has been studied, relatively few occupational studies have examined the health status of pharmaceutical production workers. Heron and Pickering (2003) also noted that few industry studies have been published and that there is limited empirical evidence of an increase in morbidity and mortality among pharmaceutical production workers due to occupational exposure. As result previous research on this topic is limited and the research project has been carried out in pharmaceutical industry then the findings cannot be generalized to occupational safety and health management practices and their effect on employee commitment in other industries, as well as to all other administration departments only examines operational units who are prone to accidents.

1.8 Definition of Terms

Accident: is defines an accident as an unplanned and uncontrolled event in which the action or reaction an object, substance, person or radiation results in personal injury or probability thereof(Heinrich 1930).

Working conditions: refers to working environment and all existing circumstance affecting labor in the workplace(Ali, p, 68, 2013).

COVID-19: identified in 2019, SARS-CoV-2, has caused a pandemic of respiratory illness (Johns Hopkins Medicine, 2022).

Employee commitment:employee commitment can be defined as the degree to which the employee feels devoted to their organization (Akintayo, 2010).

Olintment (OYNT-ment):are mixtures of various fats that can be easily spread. They are made of fat, oil or wax or combination of these (National Library of Medicine (NLM), 2020).

OS&H management system:is a set of interrelated or interacting elements to establish and implement of Occupational Safety and Health OSH policy and objectives and to achieve those objectives (Malaysian Standard, 2011).

Occupational safety: is defined as a set of principles and rules according to which human resources of all kinds an nature of their work are protected from the dangers of the professions they practice through the development, implementation and follow up of an appropriate security and protection programs through which the numbers of accidents and injuries that works exposed to in the workplace or prevent their occurrence in the course of their work (Sktad, 2019).

Research and Development:expenses are associated directly with the research and development of a company's good or services and any intellectual property (Jake Franknfield, 2022, Investopedia)

Risk Analysis: refers to the assessment process that identifies the potential for any advert events that may negatively affect organizations and the environment (Adam Hayes, 2023Investopedia)

Workplace:is a location where someone works for their employer or themselves a place of employment (Wikipedia, 2023)

1.9 Organization of the Study

This research is composed of five chapters. The first chapter consists of introduction part where the background of the study, statement of the problem, research questions and objective, significance of the study, the scope and limitations of the study and definitions of terms are illustrated. The literature works relevant to this research are detailed under the second chapter. Chapter three is dedicated to description of methodology applied in this study; Survey development, data collection procedures are also parts of this chapter.Under chapter four data analysis and interpretation have been outlined and at last chapter summary findings, conclusion, recommendation and limitation of the study were elaborated and at the end of the paper list of references, figures, survey questionnaire (both Amharic and English) ,summary of accidents and risk assessment template appendixes are attached.

CHAPTER TWO

LITERATURE REVIEW

In line with the objectives of the study,this chapter provides an insight to readers about the topics related to the theories and concepts of Occupational Safety and Health Management practices and Employee Commitment. In addition, the present chapter includes empirical studies on the effect of occupational safety and health management practices on employee Commitment. At the end of this chapter, the conceptual framework presented with figure and the hypothesis concept predicted with the null and alternative.

2.1 Concepts of Occupational Safety and Health

According to publication of ILO (2008), occupational safety and health is generally defined as the science of the anticipation, recognition, evaluation and control of hazardous arising in or from the work place that could impair the health and well-being of workers taking to account the possible impact the surrounding communities and the general environment. This domain is necessarily vast, encompassing a large number of disciplines and numerous workplace and environmental hazards. In related to that definition, a wide range of structures, skills, knowledge and analytical capacities are needed to coordinate and implement all of the "building blocks" that make up national OSH systems so that protection is extended to both workers and the environment. Similarly, the scope of occupational safety and health has evolved gradually and continuously in response to social, political, technological and economic changes. ILO (2008) in recent years, globalization of the world's economies and its repercussions have been perceived as the greatest force for change in the world of work, and consequently in the scope of occupational safety and health, in both positive and negative ways.

In addition to the above definition ILO (2008) has claimed Occupational health is an area of work in public health to promote and maintain highest degree of physical, mental and social well-being of workers in all occupations and also its objectives are mainly focused on the maintenance and promotion of workers' health and working capacity, the improvement of working conditions and the working environment to become conducive to safety and health, the development of work organization and working cultures that should reflect essential value systems adopted by the undertaking concerned, and include effective managerial systems,

personnel policy, principles for participation, and voluntary quality-related management practices to improve occupational safety and health and The science and practice of occupational health involves several disciplines, such as occupational medicine, nursing, ergonomics, psychology, hygiene, safety and other.

Additionally, referring to *Dictionary of Corporate Social Responsibility book* (2014), a safe and healthy working environment — also known as occupational safety and health (OSH) — is the "discipline dealing with the prevention of work-related injuries and diseases, as well as the protection and promotion of the health of workers," according to the International Labor Organization (ILO). Ultimately, occupational safety and health is the improvement of working conditions and working environments for workers to ensure their safety and health are maintained while working and provide compensation if a work-related injury occurs.

According to Balkissoon (2016), occupational safety and health management is defined as the department which has the responsibilities and duties of management, guidance, planning, and implementation and follow up of all issues related to occupational safety and security in the institution or establishments.

Carol (2004) has claimed in relating with HRM, OSH is a complex area which interacts widely with a broader spectrum of business interests and concerns. In addition OSH has been confined to the periphery of Human Resource (HRM), where its role influence and importance have been overlooked.

According to the official site of World Health Organization (WHO) an article issued on occupational health (2022),the World Health Assembly has urged countries to develop national policies and action plans and to build institutional capacities on occupational health, scale up the coverage with essential interventions for prevention and control of occupational and work-related diseases and injuries and occupational health services ensure in collaboration with other relevant national health program such as those dealing with communicable and non-communicable diseases, prevention of injuries, health promotion, mental health, environmental health, and health systems development.

2.2 Occupational Safety and Health in a Changing World of Work

According to an article published on International Labor Organization and United Nations Global Compact (2021), each year, an estimated 2.78 million workers die from occupational accidents and work-related diseases while an additional 374 million workers suffer from non-fatal occupational accidents. This means 7,500 people die from unsafe and unhealthy working conditions every single day. Workplace-related deaths exceed the average annual deaths from road accidents (999,000), war (502,000), violence (563,000) and HIV/AIDS (312,000).

According to Dr. Chan (2022) has noted that nowadays, the concern of occupational safety and health no longer emphasize physical health problems and mental health issues, it gradually become a prevailing issue and mental health problems are usually intangible and workers struggle to exactly recognize the symptoms. Meanwhile, the repercussions of mental health problems can be unpredictably severe also physical health and mental health interact with each other. Therefore, it is vital to acknowledge the methods to prevent and minimize the occurrence of both physical and mental health problems. As result that COVID-19 pandemic has shown how crucial occupational health and safety (OSH) is for protecting workers' health, for the functioning of our society, and for the continuity of critical economic and social activities.

The European Commission has also issued the EU strategic framework on health and safety at work 2021-2027. Following that the commission has updated rules on occupational safety and health, today the commission is renewing its commitment to update occupational safety and health rules by adopting the EU strategic framework on health and safety at work 2021-2027. It sets out the key actions needed to improve workers' health and safety over the coming years.

As result the three key objectives have been adapted are change, prevention and preparedness. The EU strategic framework will work on the following three key objectives for the coming years.

1. **Preparing for and managing change in the modern workplace**: The Commission will review the Workplaces Directive and the Display Screen Equipment Directive and revise protective limits on asbestos and lead to ensure safe and healthy workplaces during the digital, green, and demographic transitions. It will produce an EU-level effort on workplace mental health that evaluates new problems relating to employees' mental health and offers recommendations for action.

2. **Enhancing the prevention of work related and accidents at work**: This strategic framework will support a "vision zero" strategy to end work-related fatalities in the EU. In order to fight cancer, reproductive issues, and respiratory ailments, the Commission will also reform EU regulations on hazardous substances.
3. **Increasing readiness for potential health threats in the future**: In close collaboration with public-health actors, the Commission will create emergency protocols and guidelines for the swift deployment, implementation, and monitoring of actions in potential future health emergencies, drawing lessons from the present pandemic.

Additionally, the EU will use Strong social dialogue and strengthened evidence-based policy making to carry out the strategic framework's recommendations which include better monitoring and enforcement of current EU laws, raising awareness and raising money for investments in workplace safety and health notably from EU funds like the recovery, resilience facility and Cohesion policy funds.

Godderis L *et al*. (2020) have reviewed the COVID-19, stress, and isolation health effects will become apparent when more nations implement "exit strategies" from the confinement measures. A second wave of potential health effects, however, is already posing a threat to us. Also added economists predict that there will be a global economic recession. As a result, we can anticipate a change in the numerous health issues linked to poor economic growth and its effects on employment. Additionally occupational health and safety (OHS) can be crucial in this anticipated second half. They can assist in reducing the negative effects of a recession on people's health by giving employees and businesses advise on how to provide safe employment opportunities and novel appealing working arrangements.

Likewise, Liu S *et al.* (2020) have indicated on Online mental health services in China during the COVID-19 outbreak; it is yet unclear how a COVID-19 recession may ultimately affect the population and its subgroups' morbidity and death. However, it is evident that there are a variety of supporting actions that can be taken to lessen the negative effects. Recessions often have a more negative impact on the health of vulnerable, disadvantaged populations, low-paid workers, migrant workers, and those employed in the informal economy, according to health research on recessions. The COVID-19 problem, lockdowns, and economic downturns may make already existing health disparities worse. Workers in lower socioeconomic brackets have fewer options

for working remotely, less access to protective gear, and a higher chance of losing their jobs. It is crucial that the occupational safety and health industry emphasizes social assistance and employment.

George Politakis (p, 72, 2023) has referred the right to a safe and healthy working environment is now one of the fundamental labor rights to which member states are obligated by virtue of a June 2022 decision by the International Labor Organization (ILO) to amend the 1998 Declaration on Fundamental Principles and Rights at Work. Likewise the amendment signifies the successful conclusion of three years of discussions that were started in response to the ILO's tripartite constituency's 2019 Centenary Declaration, which acknowledged that safe and healthy working conditions were essential to decent employment.

2.3 The Importance of Occupational Safety and Health Management Practice

Organizations have created occupational safety and health management practices or systems to prevent accidents and hazard that toxic to employees working under risky circumstances and that causes negative impact on the well-being of physical mental and environment aspects. Consequently, the importance of occupational safety and health management practice is a vital model to any industry would maintain the condition of hazards and accidents that affect the human resource forces. Many scholars have noted about the importance of OSHMP in their studies the following are among them.

Mousa (p, 248, 2019), has outlined on the article “The Role of Occupational Safety and Health Management Enhancing Employee Productivity in SME”, Legg*et al.* (2015), have claimed that the importance of occupational safety and health management. This contributes to reducing the psychological effects of accidents and industrial diseases. Contrary, Hussein (2009) has argued on Legg’s point and added that accidents not only affect the physical aspects of work but they also affect the feelings of employees inside the organization as well as customers.

Moreover, Zamanian *et al.* (2019) as elucidated that achieving occupational safety and health objectives entails implementing the tasks and responsibilities of the department. This includes creating awareness on the sources of risks in work environment, alerting employees on health and physical hazards that may affect their health and safety.

Acquah *et al.* (2021) have noted that in this contemporary world, several organizations are seeking to boost that OHS of their employees and studies have shown that health and safety are generally ensured by compliance with legal legislation, the implementation of a governance structure and the creation of a health and secure workplace environment. Working to improve the safety culture within an organization however is not only done with effective internal pressure but also with a change in opinion and a true dedication of all employees to OHS issues.

Acquah *et al.* (p, 1, 2021) also added that currently injuries at work have encouraged employers to place a greater focus on workplace health and safety procedures and then occupational safety and health risks are issues associated with safeguarding the life, health and wellbeing of individuals employed or living.

Claudine *et al.* (p, 1, 2019) have referred to Steenkamp and Van Schoor's (2002) suggestion on occupational health and safety that OHS is complex international problem for management and society and that it must always be a top priority. Also added that everyone must accept part of the responsibility small mistakes can have a major effect and disasters that have borders that is why nations should unite and promote occupational health and safety vigorously to reach the common goal of quick warning prevention and protection systems for the employees.

According toGrace *et al.*(p, 1, 2016) have cited Anthony *et al.*'s (2007) idea that these health and safety programs should stress employee involvement, increase continued monitoring and an overall wellness component.

Additionally, Grace*et al.* (p, 1, 2016) have referred Garcia-Herrero *et al.*'s (2012) on health and safety at work that aimed at creating conditions, capability and habits enable the worker and his/her organization to carryout their work efficiently and in a way that avoids events which could cause them harm.

On their study Katunge *et al.* (2016) have indicated employee health and safety programs should be a major priority for management because they safe lives, increase productivity and reduce costs. In related to that they referred Garcia-Herrero *et al.*'s (2012) point health and safety at work is therefore aimed at creating conditions ,capabilities and habits that enable the worker and his/her organization to carry out their work efficiently and in a way that avoids events which could cause them harm.

2.4 Pharmaceutical Industry Hazards Control and Prevention

Aldhaen (2022) has indicated many employees may get affected physically or mentally due to working in unsafe work environment and may carry the consequences to their families and immediate social circles also an occupational hazard is any injury or ailment resulting from the work one does or from the surrounding in which one works.

According to Hafez*et al.* (2022), the term hazard is associated with a substance that is likely to cause and injury in a given environment or situation. The article also added that major industrial hazards have been issued for occupational safety and health in pharmaceutical manufactures and the rapid growth in production and dissemination of both natural and synthetic chemical has led to concern about their impact on the natural environment and human health. In this manner, the pharmaceutical industry has come to occupy a unique position. Furthermore, the article as claimed pharmaceutical industry has been dynamic situation that created the increasing application of organic chemical synthesis as a technique for producing therapeutic substances. This also give the work of the plant physician to instructive and the industrial safety is needed to check all the possible chances of accidents for preventing loss of life and permanent disability of any industrial worker. Consequently any damage to machine and material leads to the loss of the whole establishment.

Ahmad *et al. (*2022) despite most of potential hazards introduced into the business sector are because the devices are becoming bigger more powerful and much more complex in service. Additionally, the article has articulated that the materials and production activities had become more complicated than infused possible health hazards in the workplace, employees have had to cope with job stress because of mechanization and the need for improved efficiency that has improved their well-being .The aim of implementing new technology and flexible manufacturing methods is to shorten process times and optimize productive working time, thereby increasing work speed and intensity. This creates frustration and stress levels which lead to psychological social and ergonomic problems.

Claudine *et al.*(p,1 2019) have referred to Jilcha and Kitaw's (2016) point on mortality rate in sub-Saharan Africa is 21/100000 employees and the accident rate is 16000/100000 workers; about 54000 mortal and about 42 million workers accident happen each year which results in minus 3 days of absenteeism of each employee from work. In related to that in Ethiopia, the fatal

accident rate is 5596 per year with mortality rate of 21.5/100000 workers and an accident rate of 16426/100000 workers regardless of its poor reporting and data availability precision. Many companies focus on the satisfaction of external customers with their products or services disregarding employee satisfaction and working environment comfort.

Ahmad *et al. (*2022) found Akpan's (2011) idea that success of implementation on safety and health management system requires commitment of management in order to reduce the risk of injury and illness likewise referred to Hital's (2008) idea that leadership mindset and management commitment is the challenge of implementation of OHS because some organizations consider health and safety practices as a luxury or element necessary for compliance. Grace 2014 concluded that the lack of management commitment and low cost allocated to employee training and worker's refusal to report minor injuries is the major challenges found in Anglo Gold Company. Moreover, the article shared Sgroi's (2015), idea that happiness makes people more productive at work in health promotion is a way of increasing employee performance and reducing absenteeism. Roberto *et al.* (2014) identified the current status and challenges of global occupational safety and health and needs for preventive action and suggested regulation to interdict and control transfer of hazards products in developing countries. Gyekye (2010) also indicated that organizations and small industries are still struggling to adapt risk prevention measures in the workplace and most African countries are known for their poor health and safety practices.

Kumie *et al.* (2016) also have indicated in their study the following workplace hazards have been registered in Ethiopia.

Small-scale businesses, which typically employ 5 to 50 people per activity, are considered a critical economic sector by the GTP of Ethiopia. It is anticipated that these businesses would evolve into medium- and large-scale manufacturing industries. Additionally, they make up a larger share of the workforce nationally. Excessive noise (24%), airborne dust (57%), heat stress (14%), electric dangers (57%), and improper use of personal protective equipment (36%) were the hazards identified in the observational studies that were available. Workplace dangers are exposed to employees in different ways depending on the sort of employment. In related to the context of Ethiopia, studies on occupational exposures using conventional measurements are uncommon. Using an Anderson dust sampler equipped with a vertical elutriator, Bahir Dar

Textile measured the amount of cotton dust in the air. In the blowing and carding sections of the mill, there was increased dust that was seventeen times higher than the U.S. Occupational Safety and Health (OSHA) Permissible Exposure Limits (PEL) (0.2 mg/m3). The workflow's lowest concentration of cotton dust was found in the weaving segment. Even this so-called "smallest" amount is more than four times the OSHA PEL. The prevalence of sinus infections and chronic bronchitis was found to be significantly positively correlated with the amount of cotton dust present in these work stations.

In addition to the above hazards, an aerial survey of cotton dust at Akaki Textile Factory Addis Ababa, which revealed significant variance per workstation. Data RAM MIE 4 (Data-logging Real Time); an airborne survey of cotton dust at the Akaki Textile Factory, which is located on the outskirts of Addis Ababa, revealed a considerable variance by workstation. For this aerial cotton dust measurement, MIE Data RAM 4 (Data-logging Real Time) Aerosol Monitor 4, USA) was employed. The average respirable dust size was 4.0 m, with variations in dust concentration of 2 mg/m3 in the weaving part, 5.6 mg/m3 in the drawing portion, 8 mg/m3 in the carding area, and 32 mg/m3 in the blowing section . Based on the assumption that the workers spent 8 hours in this e one of the industries that has expanded significantly, from 3 to 20 facilities, is cement manufacture. There are also more than 10,000 workers in this industry concerns about exposure to cement dust are developing in the cement industry.

Additionally, Kumie *et al.* (2016) have reviewed ,a recent study on personal exposure to repairable dust amounts to 549 mg/m3 in the Muger factory and 6.8 mg/m3 has been registered respectively, and 153 mg/m3 and 2.8 mg/m3 are given to Mossebo factory. The concentration of respire dust was substantially higher than the suggested guideline of the American Conference on Governmental Industrial Hygienist, which are 1.0 mg/m3. The same study found a substantial correlation between rising dust concentration and worsening respiratory symptoms and lung function. Environment, these concentrations were more than 100–300 times higher than the PEL set by OSHA in the USA.

Zaebst (2011), has cited Gennaro (1990) idea that the pharmaceutical industry is an important component of health care systems throughout the world and it is comprised of many public and private organizations that discover, develop, manufacture and market medicines for human and animal health .Additionally, the pharmaceutical industry is based primarily upon the scientific

research and development (R&D) of medicines that prevent or treat diseases and disorders. In related to the above statements Zaebst (2011) has referred Hardman *et al.'s*(1996) and Reynolds (1989)ideas that drug substances have indicated a wide range of pharmacological activity and toxicological properties. Also added modern scientific and technological advances have accelerated the discovery and development of innovative pharmaceuticals with improved therapeutic activity and reduced side effects. Molecular biologists, medicinal chemists and pharmacists have been improving the benefits of drugs through increased potency and specificity. Agius (1989) Naumann *et al.*(1996); Sargent and Kirk (1988); and Teichman *et al.* (1988) supported that these advances have created new concerns for protecting the health and safety of workers within the pharmaceutical industry.

Zaebst (2011) has added on the article that pharmaceutical industry has been affected with dynamic scientific, social and economic factors. By Indicating Spilker's (1994) statement that pharmaceutical activities are subject to legislation, regulation and policies related to drug development and approval, manufacturing and quality control, marketing and sales.

According to Bhowmik (2014), knowledge of some drug-related hazards has been around for a long time. Also Wigmor (2009) has indicated Ramazzini's (1989) idea who is the original occupational medicine specialist, mentioned by several contemporary authors wrote in his 1713 book, *Diseases of Workers*, "indeed if we questioned closely those who work... in the shops of apothecaries... as to whether they have at times contracted some ailment while compounding remedies that would restore others to health, they would admit that they have very often been seriously affected".

In addition to Bernardino's (1989) view on workers and diseases, Wigmor (2009) also added that the pharmaceutical manufacturing industry produces therapeutic substances—human and veterinary medicines, drugs, and related products—in an increasingly concentrated set of mostly transnational conglomerates and subcontracting facilities. R&D, manufacturing, sales and marketing, distribution, and administration are the five broad areas of activity in the sector.

Zaebst, (2011) has studied that pharmaceutical workers have been exposed to a wide range of hazardous processes, which can be categorized as basic production of bulk drug substances and pharmaceutical manufacturing of dosage form products. These operations have created hazards exposition of chemical and non chemical exposure. Following are common pharmaceutical

hazards mentioned by Zaebst (2011) and also the researcher indicating the work of Cole (1990; Naumann et al. 1996; Gennaro (1990 and Kroschwit 1992) has found common pharmaceutical hazards.

2.4.1 Hazards in Pharmaceutical Industry

A. Ergonomics and material handling

Referring Zaebst's (2011) study show that the materials shipped, stored, handled, processed and packaged in the pharmaceutical industry range from large quantities of raw materials to small packages containing pharmaceutical products. Raw materials for bulk chemical production are shipped in bulk containers (e.g., tank trucks, rail cars), metal and fiber drums, reinforced paper and plastic bags. Pharmaceutical production uses smaller quantities of raw materials due to the reduced scale of the operations. Material-handling devices (e.g., fork-lift trucks, pallet lifts, vacuum hoists and drum jacks) assist material handling during warehousing and production operations.Also evidence Cole's (1990) point as he indicated that heavy manual work may create ergonomic risks when moving materials and equipment if mechanical devices are not available. Good industrial engineering and facility management practices reduce injuries from material handling by improving the design and features of equipment and the workplace and decreasing the size and weight of containers

B. Machine guarding and control of hazardous energy

Referring Zaebst's (2011) reviewed in his study unguarded moving machine parts in pharmaceutical manufacturing and packaging equipment creates mechanical hazards. Exposed "crush and nip points" in open equipment may seriously injure workers. Mechanical hazards are exacerbated by the large numbers and different designs of equipment, crowded workplace conditions and frequent interactions between workers and equipment. Interlocked guards, control switches, emergency stop devices and operator training are important means of reducing mechanical hazards. Loose hair, long-sleeved clothing, jewelry or other objects may become trapped in equipment. Routine inspection and repair activities identify and control mechanical hazards during production and packaging operations

C. Noise exposures

As Zaebst's (2011) stipulated high sound levels may be generated by manufacturing equipment and utilities (e.g., compressed air, vacuum sources and ventilation systems). Due to the enclosed design of pharmaceutical workplace modules, workers are often located close to machines during manufacturing and packaging operations. Workers observe and interact with production and packaging equipment, thereby increasing their exposure to noise. Engineering methods reduce sound levels by modifying, enclosing and dampening noise sources. Employee rotation and use of hearing-protective devices (e.g., ear muffs and plugs) reduce workers' exposure to high noise levels. Comprehensive hearing conservation programs identify noise sources, reduce workplace sound levels, and train workers on the hazards of noise exposure and proper use of hearing-protective devices.

D. Solvent vapor and potent compound exposures

As Zaebst (2011) cited on pharmaceutical hazards has been researched by Cole (1990) and Naumann *et al.*(1996), which Special concerns may arise when workers are exposed to toxic solvent vapors and potent drugs as airborne dusts. Worker exposures to solvent vapors and potent compounds may occur during various manufacturing operations, which need to be identified, evaluated and controlled to ensure that workers are protected. Engineering controls are the preferred means of controlling these exposures, due to their inherent effectiveness and reliability.

Zaebst (2011) has found that hazards can be created through pharmaceutical production processes. The following categories were included;

1. Basic production of bulk drug substances

This category consists of three major type of processes; fermentation, organic chemical synthesis and biological and natural extraction

A. Fermentation: Theodore *et al. (*1992) fermentation is a biochemical process employing selected micro-organisms and microbiological technologies to produce a chemical product. Batch fermentation processes involve three basic steps: inoculum and seed preparation, fermentation, and product recovery or isolation

B.Chemical synthesis: Kroschwitz (1992), Chemical synthesis process uses organic and inorganic chemicals in batch operations to produce drug substances with unique physical and

pharmacological properties. Typically, a series of chemical reactions are performed in multi-purpose reactors and the products are isolated by extraction, crystallization and filtration

C. Biological and natural extraction: Gennaro (1990) and Swarkbick*et al.*(1996) have found that large volume of natural materials such as plant and animal matter may be processed to extract substances which are pharmacologically active some workers may develop allergic or skin irritation from handling certain plants.

2. Pharmaceutical manufacturing of dosage forms

Drug substances are converted into dosage-form products before they are dispensed or administered to humans or animals. Active drug substances are mixed with pharmaceutical necessities, such as binders, fillers, flavoring and bulking agents, preservatives and antioxidants. These ingredients may be dried, milled, blended, compressed and granulated to achieve the desired properties before they are manufactured as a final formulation. Tablets and capsules are very common oral dosage forms; another common form is sterile liquids for injection or ophthalmic application (Kroschwitz (1992).

3. Other hazards (non-chemical)

A. Facility design and process-engineering issues:

Zaebst (2011) has indicated engineering design and feature of pharmaceutical facilities and process equipment influences worker health and safety .the construction materials process equipment and housekeeping practices greatly affect the cleanliness of workplace. Dilution and LEV systems control fugitive vapors and dust emissions during manufacturing operations.

B. Pharmaceutical unit operations

Zaebst (2011) revealed on the article pharmaceutical operation which is consists of weighting and dispensing, charging and discharging solid and liquids, filtrating, compounding, granulating, drying, milling, blending and compression

C. Solid dosage-form manufacturing

Tablets and capsules are the most common oral dosage forms. Compressed or mounded tablets contain mixtures of drug substances and excipients. These tablets may be uncoated or coated with solvent mixtures or aqueous solutions (Cole, 1990).

D. Sterile manufacturing

Cole (1990) and Gennaro (1990) have reflected their opinion that clean workplace and equipment surfaces, and high efficiency particulate air (HEPA) filtered ventilation systems

E. Cleaning and maintenance activities

According to Zaebst, (2011) has reviewed cleaning and maintenance activities are one of factors that accounted to accidents in pharmaceutical industry through non-routine tasks may occur when cleaning, repairing and maintaining equipment, utilities and workplace. Although unique hazards may arise during non-routine tasks, recurring health and safety concerns are encountered.

F. Packaging

Gennaro (1990) and Swarbick *et al.* (1996) have indicated that pharmaceutical packaging operations are performed with a series of integrated machines and repetitive manual tasks and additional the mechanical equipment fills caps, labels, cartons and packs.

G. Laboratory operations

Swarbick *et al.* (1996) have claimed laboratory operations in the pharmaceutical industry are diverse. They may pose biological, chemical and chemical and physical hazards, depending upon the specific agents, operations, equipment and work practices employed. Major distinctions exist between labs which conduct scientific research and product and process development and those which evaluate quality assurance and control activities.

According to Bhowmik *et al*. (2014), the lack of information about pharmaceutical industry chemical hazards—particularly their long-term effects—is due in part to the limited information available about most chemicals on the market today. Few of the numerous chemical and biological substances found in this industry have been studied for their health effects, particularly chronic ones. Herone *et al*. (2003) have discovered that reports of acute pharmacological effects, which they consider to be the most common harmful ones (for no apparent reason), were relatively uncommon. Exposure to steroid hormones and antineoplastic (also known as "cytotoxic") drugs dominated reports on the long-term effects of powerful compounds. They also claim to have discovered only six epidemiological studies on respiratory sensitization, restricted airways, and skin sensitization. In related to those AstraZeneca *et al.* (2008), there is also little information about other hazards that are likely to be present in these jobs, particularly stressors

and ergonomic design issues, despite the fact that both are clearly important; some of the largest companies describe both as the most common hazards in their facilities worldwide.

2.4.2 Prevention for Exposure and Report on Preventive Measures

Bhowmik *et al.*(2014), has reviewed that there are no OSHA standards regulating pharmaceutical exposure. Because there is a lack of knowledge about the effects of pharmaceuticals on workers, there are no Threshold Limit Values (TLVs) for pharmacologically active substances (except for acetylsalicylic acid, which has a TLV of 5 mg/m3, 1979). Researchers, mostly from the former Soviet Union, occasionally recommend threshold limits for pharmaceuticals because there is almost no official data, it is necessary to limit exposure to the lowest possible level.

Wigmor (2009),has referred on prevention that various dimensions of safety prevention and standardization have been mentioned by scholars and studies, these are include, the need for process safety (e.g., preventing major explosions), declaring that "Employee behavior is the key to a safe workplace" the other prevention include Irvinesite; a safety committee developed the Irvine EHS behavior standard. This defines the simple but important steps employees can take to improve safety, for example the importance of reporting all safety incidents, however small, including near misses. It also addresses the undesirable behaviors that every employee should avoid (GSK, 2008a, p. 109). AstraZeneca also is proud of its behavior-based safety activities at its Newark and Wilmington sites in the U.S. and the "Get HIP U.S." program that rewards employees for participating (AstraZeneca, 2008) and this behavior-based safety approach has been criticized for ignoring hazards and blaming individuals, avoiding root cause analysis, understanding of context and effective prevention activities especially, for health hazards. It may explain partly why GSK's 2007 audit found that its plants did well on the obvious safety hazards and were "generally weakest" on chemical.

2.4.3 Prevention Methods for Controlling Exposures

Bhowmik *et al.* (2014) has revealed on controlling the exposures and suggested to prevent the conditions. The following are the prevention and controlling methods for exposures.

Dust: The best long-term solution to overexposure is to improve the ventilation and replace machinery so that drug dust does not get into the air. In the short term, you can do the following:

1. Use a respirator with a high-efficiency (HEPA) filter. All respirators should be checked to make sure they fit well enough to really protect you.

2. Wear gloves that will protect your skin from contact.

3. Wear long sleeves to keep the drug from getting on your arms.

4. Wash your hands whenever you leave your work area.

Noise: Exposure to noise can be alleviated by acoustic enclosures of high-noise sections of packaging lines. Also programmed job rotation for the personnel working on manufacturing and packaging lines may be useful in reducing monotony and limiting exposure to noise.

Mechanical hazards: Appropriate devices doing away with or guarding against, possible "hand traps" should be installed.

In related to the above prevention the article has reviewed how to control fire and explosion through the following prevention remedies.

1. Government regulations are available for safety and fire protection

2. Careful plant layout and judicious choice of constructional materials can reduce fire and

3. Explosion hazards.

4. Hazardous operations should be isolated by conducting them in separate buildings

5. The roof is designed to lift easily under an explosive force.

6. Possible sources of fire are reduced by eliminating the unnecessary ignition sources

7. The installation of sufficient fire alarms, temperature alarms

8. Fire resistance brick-walls can limit the effects of an explosion.

2.5 Occupation Safety and Health Management Practices

Gallagher (2001) has defined occupational Health and Safety Management Systems (OHSMS) as "…a combination of the planning and review, the management organizational arrangements, the consultative arrangements, and the specific program elements that work together in an integrated way to improve health and safety performance".

According to Awang *et al. (*2019) article as referred Malaysian Standard (2011) Occupational Safety and Health Management System (OSHMS) is a set of interrelated elements to establish and implement Occupational Safety and Health (OSH) policy and objectives and to achieve those objectives.

According to Sylvie Gravel *et al.* (p,3,2013) have reviewed on center patronal de santé et securitedu travail (2007), successful management of occupational health and safety is crucial to industry because of the direct and indirect cost of mobilizing human resources.

Benjamin O.(2008), as indicated on his *book Fundamental Principles of Occupational Health and Safety*, a national preventative safety and health culture is one in which the principle of prevention is given the highest priority, in which governments, employers, and workers actively participate in securing a safe and healthy working environment through a system of defined rights, responsibilities, and duties.

On their article Katunge*et al.* (2016) have indicated employee health and safety programs should be a major priority for management because they safe lives, increase productivity and reduce costs. In related to that they referred Garcia-Herrero *et al.*'s (2012) point health and safety at work is therefore aimed at creating conditions ,capabilities and habits that enable the worker and his/her organization to carry out their work efficiently and in a way that avoids events which could cause them harm.

According to Bayram (2018), OHSM is comprised of five components policy, organization, planning and implementation, performance measurements and audits assessment (review) and improvement. In addition to that OHSMS is a systematic method guarantee that risk controls performed at workplaces to define the threats are effective, further the method explains how policies and procedures are implemented by means of setting goals making a planning and measuring health and safety performance at workplace. Likewise Awang *et al.*(2019) indicated Kogi (2002) statement that OSHMS is the element of OSH management system are policy, organizing, planning and implementation, measuring performance, audit and review.

Armstrong (2009), as claimed that workers well-being is based on the work –life quality offered by their employer's job description and internal safety and health standards.

2.5.1 International Labor Organization ILO Convention and Recommendation on OSH

The research has referred to the book "*Fundamental Principles of Occupational Health and Safety*" 2nd edition, (2008) on the means used by the ILO to promote occupational safety and health include international labor standards, codes of practice, the provision of technical advice and the dissemination of information. By these means it aims to increase the capacity of member States to prevent occupational accidents and work-related diseases by improving working conditions.

Further ,the book *"Fundamental Principles of Occupational Health and Safety"* 2nd edition, (2008) has reviewed that 35 occupational safety and health standards were deemed up to date, ten needed change, and two were deemed no longer entirely up to date but still applicable in certain ways, according to a periodic examination of the need to update existing labor standards. Four new instruments—one Protocol, one Convention, and two Recommendations—have been adopted since March 2002. Three international labor conventions and the related Recommendations tools largely contain the ILO's policy on workplace safety and health:

In addition to the above the fundamental principle of Occupational Health and Safety" 2nd edition, has revealed the Promotional Framework for Occupational Safety and Health Convention (No. 187), and its accompanying Recommendation (No.197), 2006, serves for the establishment of a permanent process of continuous improvement of occupational safety and health and the building of a preventive safety and health culture. This requires governments, in consultation with the most representative organizations. of employers and workers, to take active steps towards achieving progressively and maintaining a safe and healthy working environment by elaborating or updating a national policy, developing or upgrading a national system and implementing national programs on occupational safety and health. This process must take into account the principles set out in the instruments of the ILO relevant to the Convention and must include a mechanism to consider what measures could be taken to ratify OSH-related ILO Conventions.

Following the ILO Occupational Safety and Health Convention, 1981 (No. 155), and its accompanying recommendation (No. 164) provide for the adoption of a national occupational safety and health policy, as well as describing the actions to be taken by governments and within

enterprises to promote occupational safety and health and improve the working environment. Also the Convention is supplemented by the Protocol of 2002 to the Occupational Safety and Health Convention (No. 155), which calls for the establishment and periodic review of requirements and procedures for the recording and notification of occupational accidents and diseases, and for the publication of related annual statistics.

Moreover the ILO Occupational Health Services Convention (No. 161) and Recommendation (No. 171), 1985, provide for the establishment of occupational health services at the enterprise level, designed to ensure the implementation of health surveillance systems and to contribute towards implementing the OSH policy.

2.5.2 Ethiopian Labor Law Proclamation on Occupational Safety and Health

Referring a project on Access to Distributed Electricity and Lighting in Ethiopia (ADELE) (2021), there are OHS legal frameworks in Ethiopia. Workers' rights to a safe and healthy working environment are outlined in Article 42/2 of the Constitution from 1995, Proclamation No. 4/1995. In related to that the National Occupational Health Policy and Strategy, the Occupational Health and Safety Directive (2008), the Occupational Health and Safety Policy and Procedures Manual, and the on the Job Occupational Health and Safety Control Manual for inspectors (2017–18) are additional legal frameworks that pertain to OHS. Additionally, the National Health Policy (1993) Statement lists OHS promotion as a priority as well. OHS is the responsibility of the Ministry of Labor and Social Affairs (MOLSA) and its regional counter parts at both the federal and regional levels. The OHS & Working Environment Department at MOLSA is in charge of OHS obligations. Within the Labor and Social Affairs Bureau, each administrative region has an OHS department having responsibilities.

The research referring to ADELE project (2021) an employer must take the necessary steps to appropriately protect the health and safety of its employees which includes adhering to the occupational health and safety regulations specified in this proclamation, ensure that workers are adequately informed about the risks associated with their specific jobs by taking the necessary precautions, designating a safety officer, and establishing an occupational health and safety committee, workers should be given protective gear, clothing, and other supplies, along with instructions on how to use them. Register occupational sickness and accidents and notify the labor inspection service of the same, organize the expenses and pay the medical examination of

newly hired employees and those performing hazardous job, as necessary, depending on the nature of the task and make arrangements, at his own expense, for the medical assessment of newly hired employees ,employees performing hazardous job, if appropriate, with the exception of HIV/AIDS Unless and until the nation is required to do so by an international convention, ensure that there are no dangers to the health and safety of employees in the workplace or other areas of the business, take the necessary precautions to ensure that none of the work processes within the enterprise pose a risk to the health and safety of the employees on the basis of physical, chemical, biological, ergonomic, or psychological factors and follow the competent authority's guidance in line with this proclamation.

In addition to the duty of employers the proclamation obligates any employee must participate in the development of work regulations to protect the health and safety of employees and follow them, immediately notify the employer of any appliance malfunction and worker injuries to their health and safety that he becomes aware of while working on the project, any circumstance that he may have cause to suspect could pose a risk but that he is unable to avoid on his own, as well as any incident of health injury that occurs during or in connection with employment, should be reported to the employer, utilize all safety equipment and other tools provided to safeguard his health and safety and the health and safety of others in an appropriate manner, be sure you follow any health and safety guidelines provided by your employer or the competent authority and no employee shall interfere with, remove, displace, damage, or destroy any safety equipment or other appliances provided for his or others' protection or obstruct any method or process implemented with a view to reducing occupational hazard.

Furthermore, the ADELE project (2021) in related to the above proclamations the labor proclamation grants regional Bureaus the authority to establish requirements and safeguards for workers' health and safety and to monitor their implementation. Additionally, reviewed that regional bureaus are required to gather, compile, and disseminate data on worker safety and health. It is against the law for an employer to: (a) prevent a worker from exercising his rights in any way or to take action against him because he does so; (b) discriminate against female workers in matters of pay based on gender; (c) terminate an employment contract in violation of the terms of the Labor Proclamation No. 1156/2019; and (d) coerce any worker by force or other means to join, not join, or cease to be a member of a union.(f) discriminate between workers on the basis of nationality, sex, religion, political outlook or any other conditions.

2.5.3 Occupational Safety and Health Management Practices in Business Organization

Benjamin O.(2008) has noted in his book *" Fundamental Principle of Occupational Health and Safety*" 2nd edition, , it is essentially the management's obligation to protect employees from occupational accidents and illnesses, just like it is their responsibility to set production goals, guarantee the quality of the output, or provide customer service. The company's direction is determined by management. The strategic vision and mission statement create a framework for development, profitability, and output while also valuing employee health and safety across the board. The corporate culture and procedures of the organization should be integrated with the system for managing safety and health.

According to the *fundamental Principles of Occupational Health and Safety2nd edition* (2008), the following are occupational Safety and health management practices in business:

1. **Management Commitment and Resources**

An effective OSH program at work depends on management's unwavering dedication to making safety and health a top priority. Employees only perceive such programs as worthwhile endeavors when management takes a proactive role. The boardroom has the clout, authority, and resources to make decisions and establish the standards for a secure and healthy workplace. The book indicated that manager's dedication to workplace safety and health may be shown in a number of ways which includes ensuring that the occupational safety and health program has enough resources, both financial and human resources,creating organizational frameworks to assist managers and staff with their OSH responsibilities,appointing a senior management representative to be in charge of monitoring OSH management efficient operation a large financial commitment is needed to set up and maintain an OSH system, adequate financial resources must be allocated within business units as part of total operating costs in order to manage safety and health effectively and the local management team needs to be aware of the importance that corporate executives attach to giving workers a safe workplace.

In related to the above topic Muah *et al*. (2021) referred to Cooper's (2006) idea and he defined management commitment is to safety as employers' and workers' involvement and engagement in activities to attain safety goals.

Furthermore, Katunge*et al.* (2016) have indicated that managers and supervisors must serve as role models for the safety programs.In related to that they referred Reber's*et al.* (1990) pointthat they should ask for employee's suggestions for improving workplace safety and implement the suggestions in timely fashion.

According to Gyekye et al. (2012) efficient use of communication and information networks in enterprises both helps with reducing number of accidents and improves the perception of workers as regards management's commitment for OHS.

2. Workers Participation

As the book reviewed the avoidance of accidents and illnesses at work requires collaboration between management and employees, or their representatives, inside an organization. Workers have a fundamental right to and obligation to participate. Workers should cooperate while performing their jobs to help their employer meet their obligations to provide a safe and healthy workplace. Employers have a variety of responsibilities in this area.

Additionally, workers' full involvement in any OSH programs created with their benefit in mind would not only guarantee the effectiveness of such measures, but also make it feasible to maintain an adequate level of safety and health at a fair price. Workers and their representatives should be given the opportunity to participate in the definition of concerns, goals, and ensuing actions relating to occupational safety and health at the shop floor level.

In related to the above statements Katunge *et al.* (2016) have referred Robens's(1972) findings that he compared two types of models on safety offers a challenge to the tradition approach to safety in workplace known as the 'careless worker' model. Additionally in this model he reviewed that employers assumed that most of the accidents were due to the employee's failure to take safety seriously or failing to protect themselves. Finally he found that the model report he recognized that the 'careless worker' model does not explain occupational ill-health caused by toxic substances, noise and badly designed and unsafe systems of work.

3. Training

Continuously integrating improvements into the work process is essential, but only when everyone involved has received the appropriate training. In order to maintain a safe and healthy workplace, training is a crucial component that has long been a part of OSH management.

Training is necessary for supervisory staff, managers, and employees. The project's workers and their representatives should receive the necessary training in occupational safety and health. It is the responsibility of management to provide the appropriate instructions and training while taking into account the roles and capabilities of various worker types. The main goal of workplace safety and health training is to encourage action. Therefore, it must promote awareness, disseminate information, and aid recipients in adapting to their own roles.

Furthermore,Hasithani*et al.(*2021) have referred Dodge(1998) idea that in thriving workplace health and safety programs training plays a significant role as an essential component likewise Cooper(1998) added it is commonly believed that effective training is a crucial element to achieve successful healthy and safe management.In related to HRM Digest (2019) training demonstrates the safety level of employees and as well as measurement criteria.

4. Organizational Aspects

Adequate organizational measures are needed to control occupational diseases and dangers. Since there is no ideal organizational structure model, a decision must be made by comparing the expected benefits and drawbacks of various systems. A step-by-step strategy is more likely to be effective than an overly ambitious plan that does not allow for later revision, and moderation should be the driving concept. In related to this Sylvie *et al. (*2013) have referred Vezina's (2007) point that leading OSH experts in diverse discipline are unanimous in acknowledging the limits of particular disciplines in building an OSH culture in organization.

As revealed Awang *et al*. (2019) indicating Dias (2005) view that the International Labor Organization (ILO) highlighted that implementing an OSH management system is a way to improve the safety culture in organization and at the same time comply with OHS regulations.

5. Performance Measures

Employers must be able to track OSH performance over time in order to ensure that there is a steady decline in occupational accidents and illnesses. Employers should periodically conduct systematic safety audits to ensure that the relevant OSH requirements are being followed, such as by monitoring the environment. Additionally, they must maintain the records required by the competent authority for workplace safety, health, and the working environment. Such information may include lists of authorizations and exemptions under laws or regulations relating

to the supervision of the health of employees in the enterprise, information regarding exposure to specific substances and agents, and records of all notable accidents and injuries to health that occur during or in connection with work. Baseline assessments, auditing, self-evaluation and self-correction, incident investigation, medical surveillance, and management review processes would all be a part of a comprehensive evaluation system.

According to Awang *et al. (*2019) in their research shared Petersen's (2000) idea that the greatest problem is safety is the difficulty of measuring an organization's OSH performance. Also Petersen's (2000)identified that "high achievement "organization had a degree of supportive relationships which use the principle of group decision –making and the supervisor plays a significant role in realizing this success.

2.5.4 The Role of Human Resource Management in Maintaining Employee Safety and Health Management in Organization

Occupational safety and health are one of core function of human resource management along with recruiting and selecting, training and development, performance appraisal, compensation management, retention and succession planning as well as retirement management. Hence the role of HR management maintaining OSH at workplace has been studied by scholars. The following paragraph discusses studies in related to the role of HR in safeguarding employee's OSH in the organization.

Katunge *et al*. (p, 3, 2016)have referred Bratton & Gold*'s* (1999) idea that the health and safety function is directly related to the elements of the HRM cycle-selection, appraisal, rewards and training. In addition to that Maintenance of a healthy and safe workplace can be facilitated in the selection process by selecting applicants with personality traits that decrease the likelihood of accidents. Safe work behavior can be encouraged by a reward system that ties bonus payments to the safety record of a work group or section.

In addition to the above Katunge et al. (p, 3, 2016) have added Beer's *et al*. (1984), idea model of HRM, he acknowledged that work systems cannot only affect commitment, competence, cost effectiveness and congruence-the four Cs' – but also have long-term consequences for individual's well-being, there is evidence to indicate that work systems design may have effects on physical health, mental health, and longevity of life itself. In related to that referred

Armstrong's (2006) idea that continuous attention to health and safety is important because ill-health and injuries caused by the systems of work or working conditions causes suffering and loss to individuals and their dependents.

According to the research "Interaction Between Human Resource Management and OHS (p, 3,2013) indicating Berthelette *et al.'s* (1995) idea that successful implementation of preventive OHS measures has mobilizing effect, however not all prevention and protection initiatives are successful. In this manner the article added Carpentier-Roy *et al.'s* (2001) idea that creating conditions that are favorable to the involvement of key players in analyzing the emergence of injuries, particularly in small companies where it is rarely possible to dedicate resources on a continuous, regular basis to the implementation of OHS measures.

Acquah *et al.*(2021), everyone at the workplace has legal responsibilities for health and safety according to the OSH legislation also it is necessary to consider safety and well-being or employee in organization in order to boost productivity, hazards must be minimized or eliminated because it negatively impacts employee productivity and commitment which in return affects organizational profitability. In related to that human resource plays the most important role in performing tasks for accomplishing the goal of the organization. It is the human resource which is very important in the success of organization because most of the problems in organizational structure are human and social instead of physical technical or economic.Ignorance of this fact can cause many losses to the organization.

In addition to that, Acquah *et al. (*p, 12, 2021)have shared that currently major international organizations have been seeking to boost the OHS of their employees likewise the study indicated health and safety are generally ensured by compliance with legal legislation the implementation of a governance structure and the creation of a healthy and secure workplace environment; working to improve the safety culture within an organization, however, is not only done by with effective internal pressure but also with a change in opinion and a true dedication of all employees to OHS issues. This commitment should start with all representatives of the company from the higher leadership, therefore having and enforcing an OHS management framework is a strong opportunity for organizations planning to behave according to the laws on workplace safety and healthy safety culture.

Furthermore, referring to Kumahlor *et al*.(p,2 ,2017) human resource department have some roles to play in the implementation of health and safety programs in organizations also the department is expected to be responsible for the maintenance of health and safety records as required by law, coordinating various training on health and safety for new and existing employees, helping in the investigation of causes of accidents, working on compensation payment arrangements for injured employees and further developing safety communication programme.

According to Acquah *et al*. (p, 12, 2021) controlling hazardous situations, sufficient physical working environments, rewarding and appreciation, cultivating relationship and partner and jointly providing a productive and professional working atmosphere for workers in jobs are obvious.In addition to that organization can build work environments to enhance the degree of organizational engagement and motivation and increase efficiency. Following these atmosphere tools are useful to monitor the work environment and improve efficiency include noise reduction, waste control sound hazard management, enhancing communication, creating a more human environment, health for the worker in the workplace ,incentives ,reviews, modeling the ideal work environment ,improving the quality of professional life and creating appropriate physical employment conditions.

2.6 The Concept of Employee Commitment

There is no much theories have been discussed on "Employee Commitment" rather than on "organizational commitment" this was evidenced by Thomas J. et al. (p, 16, 2000) which the researchers Leong *et al.*(1996); Levey*et al.*(1998); Meyer*et al.*(1998); Muller*et al*. (1992) and Shore *et al.*(1993)have stated a number of researchers have investigated the concept of"organizational commitment". However the research has tried to reflect earlier studies of Paul Iles *et al.* (1990) who reviewed on their study"HRM Practices and Employee Commitment: Possibilities Pitfalls and Paradoxes". Later it will discuss and define the concept employee commitment.

Iles*et al.* (1990) have indicated on their research that much recent writings on human resource management (HRM) have emphasized the desirability of a committed workforce and the central role of HRM practices in establishing and maintaining such commitment. The research claimed that little research evidence for such effect has been presented however the conceptualization of

employee commitment has often been confused failing to recognize its multi-dimensional nature. In addition to that several studies undertaken by the authors demonstrating the impact on employee commitment of such HRM practices as selection, assessment, induction and training are reviewed, indicating the possibility for research and practice in this area.

In related to the above concept Iles *et al.* (1990) have asked on their research problem that commitment: malt faced concept it is a good thing? Noted that many proponents of HRM are claiming firstly that commitment is a good thing and secondly that HRM practices can influence it. Also added that it is possible, however that committed may not necessarily be a benefit, either for the employee or for the organization. Moreover the article evidence on American work that high employee commitment may have positive effect not only on individual's career satisfaction but also on their non-work satisfactions.On their view they demonstrated the possible and practice and highlighted some conceptual pitfall, some paradoxical findings, the work also point to the need to develop a more adequate model of the commitment process.

Furthermore, they also discussed on the topic "HRM practices and Commitment: some possibilities; that employee commitment can be established taking such steps as instituting group working or gain sharing through developing flatter structure and mission statements however as is often the case with much of HRM literature and shared Martin and Nicholls's (1987)the data almost the data entirely gathered through interviews with a small number of managers rather than more through systematic measurement they may therefore simply reflect managerial rhetoric or managerial beliefs about what has happened or what should happen,similarly,additionally they referred Walton's (1985) view point the assertion that HRM policies which emphasize mutually will generate high employee commitment. Additionally, Iles *et al.* (1990) have reflected on the above review has yet to be rigorously tested as much of the evidence about the success of HRM policies in gaining and maintaining employee commitment seems to rest on testimonials ,consultant reports and one shot case study descriptions also rarely have more systematic ,quantitative methodologies been employed.

According to Iles *et al.(1990*) have reviewed on HRM practices and commitment: some pitfalls that studies reviewed HRM practices can indeed affected employee commitment, especially organizational commitment. Contrary reflected on this idea that this does not mean that installing an HRM programme which has as one of it is goals the enhancing of employee commitment will

necessarily turn out to be advantages to organization at least in the way intended.Similarly they added that in the first place employee commitment seems multifaceted with different commitment to paid employment ,job ,organization and career have been identified and empirically distinguished and an employee report highly on another and not all such commitments need necessarily be beneficial to organizations.

In related to the above studies of Iles *et al.* (p, 148,1990), have cited Morrow's (1983)pointed that there was a plethora of measures devised to measure employee commitment without sufficient attention given to the conceptual overlap and redundancy.

Consequently, Iles *et al.* (1990) have concluded that apparently employee commitment is often paradoxical in nature rather than the liner, national process depicted in most current models of organizational commitment which imply that high levels of commitment lead to certain behavior s in a prospective logical fashion.

Moreover, Thomas J.*et al*. (p, 16, 2000) evidence Meyer and Allen's (1998) review of commitment in the workplace noted several directions for future research and they believed that the relation between human resource practice and employee commitment should be examined more fully.

2.6.1 Definitions on Employee Commitment

According to Rowden(2000) commitment has been linked to improved emotion of belonging, efficacy,security,career progression, pay and intrinsic benefits for both employees and employers.

Vance (p, 4, 2006) also on his book "*Employee Engagement and commitment*" related commitment with work and company and defined commitment as both willingness to persist in a course of action and reluctance to change plans, often owning to a sense of obligation to stay the course. Also added that commitment has an emotional component people usually experience and express positive feelings toward and entity or individual whom they have made a commitment.

Nithya (2021) as cited on employee commitment can take different forms; the context, direction and development of commitment, as well as the extent to which commitment influences behavior can result in confusion and debate. Following that Nithya added commitment is the bond employees experience with the organization. Moreover,employees who are committed to their

organization generally feel a connection with their organization, feel that they fit in and, feel they understand the goals of the organization.

Irefin *et al*. (p, 34, 2014) referred Akintayo's (2010) definition as he defined employee commitment is the degree to which the employee feels devoted to their organization. Also Ongori's (2007) as he defined that employee commitment as an effective response to the whole organization and the degree of attachment or loyalty employee feel towards the organization.

Additionally, Irefin *et al. (*p.34, 2014) as referred to Zheng (2010) definition on employee commitment described that employee commitment as simply employee attitude to organization. Thus definition of employee commitment is broad in the sense that employees attitude encompasses various components.

Patricia *et al. (*2021) have referred Mowday *et al.* (2013) definition that employee commitment may enhance employee tenure, minimize turnover, cut training expenses and increase work satisfaction while fulfilling corporate pools such as a good quality. Mathieu and Zajac, (1990) also added on this concept tenure is accorded to employee committed to their organization than less committed ones.

In addition to that Patricia *et al.* (2021),have referred on their article O 'Connor *et al*. (2011) there is a link between management safety measures and the occurrence of accidents, as result management engage in workplace safety and health is viewed as critical to employee safety performance. Hence it is of the essence to assess the role that commitment to satisfy by management ensures the performance of the job is safe and safety programs play in employee commitment.

Nomatshawe (2017) has reviewed He *et al.'s* (2011) article that employee commitment is psychological attachment, felt by a person to the organization for work which they work.

Moreover, Nomatshawe has shared Robinson's (2003) definition employee commitment as a one demential construct that can be enhanced by a particular human resource policy. In conjunction with this notion; Martin(p, 40, 2006) stated that the goal of employee commitment entails guaranteeing commitment to the organization. The notion is based on the assumption that committed employees will be more satisfied, productive and adaptable. For this reason according

to Meyer and Herscovitch (p, 301, 2001) employee commitment is now widely recognized as being vital to the experience of work and organizational performance.

According to Nomatshawe (2017), has studied "employee commitment" in the context of the study is characterized by a string belief in and acceptance of goals and values of the organization. Furthermore,Nomatshawe (2017) in related to this added that employee's willingness to exert considerable effort on behalf of the organization, coupled with a strong desire to maintain membership of it, also adds value to employee commitment. As result, it indicated that it is possible for employees in the health care environment to be committed and identify with public healthcare institutions that they serve, committed.

According to Thomas J. *et al.* (p, 1, 2000)have defined employee commitment is the individual's desire to remain as a member of his or her work related interest groups. Employee commitment encompasses the domains of organizational commitment, professional association (union) commitment.

2.6.2 Types of Employee Commitment

Paul *et al.*(p,149,1990) it may be that different types of commitment have different relationships to organizational behavior and employees who express high commitment to both job and organization may be the least likely to leave. On the same point employees with high job involvement but low organizational commitment may leave for career enhancing reasons, especially if high in career commitment.Another major approach to organizational commitment takes an instrumental –calculative prospective emphasizing less affective attachment and more instrumental exchange of involvement in return for rewards, continuing commitment is seen as s function of an individual's evaluation of costs and benefits of maintaining organizational membership (Penley and Gould 1988).These later two forms of commitments seem to be captured in concept of continuance commitment (Meyer and Allen 1988).

In related the above concepts Becker *et al.(*p,993,2004) have reviewed in their article,Meyer and Allen (1991; Allen & Meyer, 1990) initially developed their three-component model to address observed similarities and differences in existing one-dimensional conceptualizations of organizational commitment (e.g., H. S. Becker, 1960; Mowday et al., 1982; Wiener, 1982).

The research found from Nomatshawe (2017) citations on the article by referring scholars idea on this field and found out there are employee commitments which commonly include Allen and Meyer's(1991) employee commitments;affective, continuance and normative commitments. Following the next topic discusses on these commitment types.

1. Affective commitment

Dannhauser (p, 48, 2007) refers to affective commitment as employee's emotional attachment to identification with and involvement in the organization. Rhoades Eisenberger and Armeli (p, 825, 2001) postulate that affective commitment is based on social exchange process and support from the organization.su Baird and Blair (p,139,2009) however emphasis that the degree of an employee's affective commitment is dependent upon their attitude towards the organization, which may be influenced by their organizational environment.

Landry and Panaccio (p, 10, 2010) advance the definition of affective commitment by adding the aspect of attitudinal change of employees towards management within the organization. Dannhauser (2007:173) supports the view that employees with strong affective commitment make a great contribution to the accomplishment of the organizational goals.

Meyer, Allen and smith (p, 538, 1993) argue that strong affective commitment to an organization arises because employees share values with both the organization and its members; it is therefore predicated to be positively associated with job performance. Ooi Safa and Armugam (p,37, 2006) established a positive association between employee participation and affective commitment. This is means that the employees are crucial in an organization.

Mehta and Mehashwari (p,7,2013) suggested that if employees' affective commitment diminishes, theemployees could leave the organization and staff turnover could increase ,thus affecting cost of employment and organizational stability, similarly destructive leadership is inversely related to workers affective commitment and positively related to the workers intent to leave their organization(Weaver &Yancyp,104, 2010). Therefore if affective commitment in employees doesn't exist the organization will experience a loss in suitable and exceptional employees who have significant talent.

2. Continuance commitment

Dixit and Bhati (p, 38, 2012) and Sting *et.al* (p, 67, 2015) define continuance commitment as the costs associated with leaving an organization. This indicated that continuance commitment is when an employee feels that they are tried to the organization rather than staying in an organization. Moreover continuance commitment is viewed as corresponding to external commitment and is reflected through the material benefits and rewards to be gained by employees Clark (p, 21, 2003).

3. Normative commitment

Argtris (p, 98, 1998) and Landry *et al.* (p, 285, 2010) have referred to normative commitment as a sense of loyalty to the organization. Keskes (p, 26, 2014) described normative commitment as employee's feelings of moral obligation to an organization which pushes employees to remain in the organization.

2.7 Empirical Research Findings on Effect of Occupational Safety and Health Management Practice on Employee Commitment

This section discusses the empirical studies related to Effect of Occupational Safety and Health Practice on Employee Commitment aligned with theories, arguments ,suggestions made by various elates or scholars in the field. Hence, the research is interested to answer the effect of occupational safety and health management practice on employee commitment.

2.7.1 Occupational Safety Health Management Practice

According to their findings Umugwaneza *et al.* (2019) have found occupational safety management has impacted on employee commitment by assessing the impact of occupational safety practice on commitment and performance in steel manufacturing company Rwanda. This also was confirmed with strong correlation between the two variables.

The research hypothesis has found Otoole's (2001)hypothesis that health and safety practices with perception towards the working premises have been positively impacted.

Findings of Michael *et al.* (2005) have consistent with the organizational support theory. In accordance with the said theory, time work employees consider organization's commitment for safety as a kind of perceived organizational support and the through puts of the foregoing are similar to that of the perceived organizational support (POS).

According to their study Imran *et al.*(2019) have referred Mearns *et.al*(2010,2003) that the investment made for health-based practice on the theory of social exchange and the principles of revolution led to employee health well-being resulting in the attraction and commitment of employees to the organization.

Indicating Tarik *et al.'s* (2020) study as referred to Neal and Griffin (2006), Tay (2015) and Yusuf (2012)conclude that occupational health and safety is significantly correlated with employee commitment, employee engagement, productivity and performance. Moreover, as indicated Battaglia *et al*.'s (2015)idea that the happiness of family depends upon the health and safety of the worker who normally is the bread winner as OHS in the workplace influences the private and social lives of individuals.

In related to these Tarik et al.'s (2020) as evidenced on their study and indicated Zacharias's *et al.* (2005),Waring (1999) and Pollitt (2011) safety and health and employee commitment have strong positive relationship among occupational health and safety, employee commitment and employee performance.

According to Everist (p, 24, 2022) employee involvement is a participation of employees in decision making and problem solving and increased autonomy in work processes. In related to that Everist (p, 25, 2022) also evidenced Kumari *et al.***'s** (2014)point a social –technical approach to technological processes and production methods empowerment is seen as a peak in the employee involvement,social participation and social integration in the organizational system. Additionally they implied that organizations strategically opted for more employee participation,autonomy and apply self-managed teams.

According to Mekdisa (2018)training and awareness on OHS found to be the most contributing occupational safety and health trait in the prediction of employee organizational commitment, similarly the study found that sound occupational health and safety management is a stimulant for employees to be committed in any of the three organizational commitment forms.

Muah *et al.* (p.44, 2021) have referred O 'Connor et al 's (2011) idea that there is a link between management safety measures and the occurrence of accidents, as result management engage in workplace safety and health is viewed as critical to employee safety performance. Hence it is of the essence to assess the role that commitment to satisfy by management ensures the performance of the job is safe and safety programs play in employee commitment.

Akpan, (2011) supports idea that success of implementation on safety and health management system requires commitment of management in order to reduce the risk of injury and illness.

2.7.2 Employee Commitment

In this research the dependent variable employee commitment have been adapted from Allen and Meyer (1991) concept which include affective commitment, continuance commitment and normative commitments.

Acquah (p, 14, 2021) evidence that employee normative commitment can be established when a company is costly to provide jobs, like investing in workplace occupational health and safety education and training. Also indicated this type of commitment can be used to predict employee turnovers.

Danish *et al.* (2013) has evidenced that controlling hazardous situations, appropriate physical working conditions, rewarding and recognition, development of friendship and companion and workers' fitness in jobs collectively create an efficient and competent working environment. Organizations should design working environments so as to increase the level of organizational commitment and motivation, and improve throughput.

Roca-Puig *et al.*, (2012) as reviewed that numerous studies have analyzed the high commitment management model, high performance work systems or the organizational commitment to employees (OCE) model in the strategic human resource management literature. These terms are used to depict a system of human resource practices that enhance employees' skills and knowledge, their commitment, and consequently, their labor productivity, thereby these turn into a source of competitive advantage.

According to Michael *et al.* (2005), management commitment to safety has a positive relationship with organizational commitment, job satisfaction and job-related performance. Moreover, commitment to safety has also a negative relationship with employee withdrawal behaviors. Similarly, high level of affective commitment is desired in all organizations since it is associated with high individual productivity.

Additionally, Michael *et al.* (2005) has also suggested that there were evidence as regards the fact that an organization would benefit in case management was determined to provide workers with a safe working environment and maintain it. This determination can be demonstrated

through various ways; e.g. personal care for health and safety of workers, implementation of workplace safety training programs, participation of occupational safety committees in management, considering safety in work design, and reviewing work rate.

Barling and Hutchinson (2000) have found in their study that commitment-based safety practices improved trust and organizational commitment and indirectly and directly influenced the safety climate.

May and Schwoerer (1994) also point out that if additional help and more resources are given in simplifying work processes and doing their job better, the teams who are highly committed to their work can able to improve their job performance.

A study by Eisenberger *et al.* (1990) as underscored in the workers' perception as regards being valued and regarded by the organization positively influence the degree the workers act sincerely in fulfilling their responsibilities, affective and continuance commitment, and being open to novelties on behalf of the organization.

Workers' organizational commitment is an important indication of their effect on the performance of the company. The primary reason of it is the fact that workers with organizational commitment tend to work for extended time periods in the same organization. In addition, such workers are more active in their own job performance.

Referring to Muah *et al.*'s (p.41, 42 2021) article that many scholars have cited on workplace safety and health that influence employee commitment ; Stoddart and Evans (2017) as indicated that maintaining workplace health and safety is increasing being recognized as a wide concept that greatly influences employee quality of life in organization , likewise Lim *et al.* (2008) added that safety and health are explained as the absence of detrimental effect emanating from one's jobs that deteriorates psychological ,physical and emotional well-being.

2.8 Conceptual Framework

Employee commitment is a reflection of effective work and safety environment especially training awareness, employee involvement in OSHMP and leadership commitment also in related to these safety communications, rewards and appreciation, physical work environment ,quality professional life, cultivating relationship and partnership will lead to job satisfaction,job

performance and sense of organizational citizenship. Consequently, significantly it gives highly committed work force.

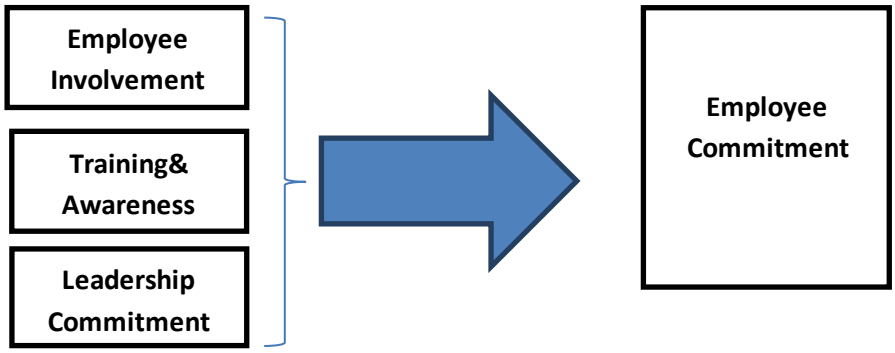

Figure: 2.1: Conceptual framework: Factors constituting occupational safety & health and their effect on employee commitment:

Research Variables

The research adapted Employee commitment from Allen and Meyer (1991) which is used as dependent variables of Affective commitment, Continuance commitment and normative commitment.Despite there are a number of OSHM practices are implementing and researchers are found out. The research has taken the independent variables of employee involvement, training and awareness and leadership Commitment from International Labor Organization(ILO)well known guidelines (2001), the model OSHMS has systems and theories developed primarily in natural and social sciences but is also similar to business management mechanisms. These are input (workers participation, training and leadership) process, output and feedback.

2.9 Hypothesis Concept

After assessing the above empirical studies and findings the hypothesis have been constructed on OSHMP of employee involvement training awareness on OSH and leadership commitment and their significant effect on employee commitment likewise employee commitment is composed of Allen and Meyer's (1991) affective, continuance and normative commitments Therefore, eight hypotheses were created to support whether the hypothesis significantly affects the alternative or not affect the null are included in this study.

H_0 occupational safety and health management practice has no significance effect on employee commitment

H_A occupational safety and health management practice has significance effect on employee commitment

H_0Employee involvement has no significant effect on employee commitment

H_A Employee involvement has significant effect on employee commitment

H_0 Training awareness on OSH has no significant effect on employee commitment

H_A Training awareness on OSH has significant effect on employee commitment

H_0 Leadership commitment has no significant effect on employee commitment

H_A Leadership commitment has significant effect on employee commitment

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter describes the research methodology. The research has used tools and methods to assess "The Effects of Occupational Safety and Health on Employee Commitment at Ethiopian Pharmaceutical Manufacturing Company (EPHARM). The main topics covered in this section are the research approach, research design, research population, sample and sampling technique, sample distribution, data source and type, data collection procedures, ethical and reliability considerations, and data analysis and interpretation methods.

Further the measurement of the study on employee commitment has used Allen and Meyer's (1991) the three-dimension commitments; Affective Commitment, Continuance commitment and Normative Commitment questionnaire. The revised questionnaire from researchers was adapted to inquire both variables the occupational safety and management practice and employee commitment. Likert five scale items have been prepared to obtain responses with best fit alternative choices. For the purpose of the study the term "Employee Commitment" has been used to reflect the above mentioned commitment items.

3.1 Research Approach

The research is based on effect relation with its factors between employee commitment and occupational safety and health practices, followed by a significant amount of literature at the start of a study to provide direction for sources, questions and objectives.

This study followed quantitative research approach. Unlike the qualitative and mixed approaches, the nature of quantitative research necessitates testing theories by examining the relationship between variables, and these variables are typically measured on instruments so that numbered data can be analyzed using statistical procedures.

However, other research approaches, such as qualitative, use emerging questions and procedures data typically collected in participant settings, data analysis inductively building from specific themes and the researcher making interpretations of the meaning of the data, and mixed approach has both quantitative and qualitative forms, it involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in a study.

As a result, the quantitative approach is the foundation of the research project. Furthermore, the research analysis, conclusions, and interpretations provided their solution based on the given data and research approach.

3.2 Research Design

the research has designed descriptive and explanatory types to portray the given research topics, questions and objectives which include variables effect relationships between occupational safety and health management practice with that of employee commitment ; referring to Mouton and Marais (1994), explanatory research goes further than merely indicating that relationships exist between variables also Christensen (1997), indicated that the primary characteristic of the descriptive research approach is that it represents an attempt to provide an accurate description or picture of a particular situation or phenomenon, therefore the specified objectives to give conclusions for the problem is descriptive in sense that shall expected to describe the relationship between occupational safety and health practices and employee commitment.

3.3 Population and Sampling

3.3.1 Population

In order to select accident prone employees the research has targeted populations from production units because the purpose study and carry out at Ethiopian pharmaceutical manufacturing company S.C. production unit employees. There are 174 employees working in high-risk operating units, including pharmacists machine operators, chemists/analysts and packers and cleaners.

3.3.2 Sampling

The sampling method has used total population size of 174 from the operation units which are prone to accidents. In related to that the sample size for the study was determined the sample size determination formula developed by (Taro Yamane, 1967) which is the most popular from the late 1960s. Yamane (1967)provides a simplified formula and the sample size is determined at 95% confidence level with acceptable sampling error of 5%.

$$n=\frac{N}{1+N(e)2}$$

Where “n” is the sample size, “N” is the population size and “P” is probability. In order to have fair and adequate representation of samplings from sample, the research has used simple random sampling method.In regard to this formula software (Qualtrics) sample calculator used and found out 120 is determined sample size that presents the entire population of 174.

Simple random sampling formula

If the chance of a sample get selected more than once is

1-(1-(1/N)) n

P= is a probability

n=is the sample size

N= represents the population

3.3.3 Sample Distribution

The research distributed 120 questionnaires to Sarbet and Bisrategabrel production unit employees. 65 questionnaires were distributed to Bisrategabrel branch while 55 questionnaires were distributed to Sarbet branch production units.The research selected Pharmacists, machine operators, chemists/analysts and packers and cleaners who are more likely have high-risk accidents. Hence the study has taken operation unit employees who are prone to hazardous work conditions.

Table 3. 1Sample Distribution

No of Sample Distributions	Operating employees	120 sample size
1.Bisrategabrel branch	Pharmacists	20
	Machine operators	20
	Chemists/analysts	10
	Packers and cleaners	15
	Total Samples	65
2.Sarbet branch	Pharmacists	15
	Machine operators	15
	Chemists/analysts	10
	Packers and cleaners	15
	Total Samples	55

Source own 2023

3.4 Data Sources and Types

The research has used primary data from structured survey while the secondary data was collected from Ethiopian Pharmaceutical manufacturing Company documented internal broaches,pharmaceutical factory documents, and others include books, journals, publications and websites have been sourced for the research.

3.5 Data Collection Procedures

The questionnaire has been arranged with a five point Likert (Bipolartype) scale (1932) pre-determined scale data analysis and the responses were collected employee opinions.In mean time, secondary data documents has been gathered from Ethiopian Pharmaceutical Manufacturing Company human resource department, production unit and research development and others from literature in related to occupational safety and health management practice and employee commitment.

3.6 Validity and Reliability of the Study

The validity and reliability of the study was checked by using SPSS software 20. Likewise the overall data items computed with Cronbach's alpha reliably tester which every output must give value of 0.7 or greater than.

Table 3. 2 Reliability of the Study

No.	Statements	Cronbach's Alpha	No of Items
1	Employee Involvement	**.795**	**5**
2	Training Awareness on OHS	**.797**	**5**
3	Leadership Commitment	**.861**	**14**
4	Challenges Implementing OHS	**.830**	**5**
5	Causes of Occupational Accidents	**.773**	**15**
6	Affective Commitment	**.713**	**8**

7	Continuance Commitment	**.724**	**8**
8	Normative Commitment	**.703**	**7**
	Overall out put	**.774**	**23(67 items)**

Source: SPSS output

3.7 Ethical Consideration

The researcher followed the direction of the advisor and conducted the research with well preparations for orientating participants and providing information about the study and its objectives. In related to that followed all ethical elements such as consent, confidentiality, anonymous has been considered to protect the privacy of respondents as well as secondary data was adapted from different sources and properly cited.

3.8 Data Analysis Tools & Interpretation

The research findings have been used statistical methods of descriptive data analysis to describe the sample size of 92 respondents from EPHARM employees by using distributions of frequency mean, and standard division, and correlation and multiple regression analysis have been used to show the relation between the variables and their significance level respectively. The research has presented the analysis with tables and charts in the study. Furthermore, drawing conclusions from the study's findings has been used to interpret the data using the Statistical Package for Social Science (SPSS 20.0).

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1INTRODUCTION

The research data has gathered a plenty of information to provide adequate data analysis, which was received from production unit employees at Ethiopian Pharmaceutical Manufacturing S.C.,in mean time the collected data was analyzed and presented with summarized measures and also to facilitate easy understanding the research has used tables and charts. The demographic profiles of the study samples were described with frequency and the variables were described with descriptive statistical measures of mean and standard deviation.

Furthermore, the research by using SPSS 20.0 software identified Cronbach's Alpha coefficient to test the reliability and viability of the variables. In related to that Pearson correlation coefficient(r) has been used to show the strength and relation between independent and dependent variables likewise multiple regression have been used to identify the impact and significance level of each variables. Likert scale has been used to represent employee's decision through agreement, disagreement and neutral levels.

Based on the given sample the research has distributed 120 questionnaires with written English and Amharic languages to make it easy understanding for most respondents and found out 92 of respondents were fully satisfied the questionnaire and again 13 of questionnaires were not fully answered. The rest 15questionnaires were not returned.Based on the satisfied samples the evaluation was made with Likert scale, mean score, standard deviation were computed.

Table 4. 1: Percentage & Frequency Distribution of Demographic Characteristic

Respondents Characteristics		Frequency	Percent
Gender	Male	65	70.7
	Female	27	29.3
	Total	92	100.0
Age	18-25	4	4.3
	26-34	43	46.7

	34-45	32	34.8
	46-50	8	8.7
	> 50	5	5.4
	Total	92	100.0
Education	Degree	58	63
	Diploma	15	16.3
	Certificate	8	8.7
	High School	10	10.9
	Elementary	1	1.1
	Total	92	100.0
Marital Status	Married	68	68.5
	Not Married	23	30.4
	Others	1	1.1
	Total	92	100.0
Work Experience	0-5 year	16	17.4
	> 5-10 years	42	45.7
	>10 year	34	37
	Total	92	100.0

Source:SPSS 20.0 output 2023

The result in the above table shows 92 respondents were surveyed and found70.7 % or (n=65) of employees are male and 29.3% or (n=27) are females, whereas 46.7 % or (n=43) of the total number of respondents were in the age group of 26-34 and 34.8% or (n=34),follows the age group between 34-45years also the rest covers at minimum age groups at 8% or (n=8)of 45-50, 5% or (n=5) at 50, and 18-25 at 4 % or(n=4) respectively.The educational status of participants were indicated by the table, which shows that 63 % or (n=58) participants are degree holders, 16.3%or (n=1) are diploma holders and the rest are 10.9% or (n=10), 8.7% or (n=8), 1.1% or (n=1) are secondary school, certificate and elementary school respectively.Meanwhile marital

status of participants 68.5% or (n=63) are married while 30.4 % or (n=28) are single and only one participant has hold others with 1.1%.Furthermore, 45.7 % or (n=42) of the respondents have been working between 5-10 years in the company and 37% or (n=34) have worked more than ten years also respondents worked between 0-5 years at 17.4% or (n=16) in EPHARM.

According to the above demographic data survey, EPHARM has dominant male workers in the production unit; most are young age group of 26 to 34, their educational status shows that the majority are degree holders and married also served the company more than five years.

4.2 Descriptive Analysis on Selected Occupational Safety Health Management Practice Measures

This section measurements employee's perception on Occupational Safety Health Management Practices OSHMP in the target organization, each survey measurement has five items with Likert scale to identify agreement, disagreement and neutral of the respondents to evaluate staff participation in OSHMP. The average (mean) is considered as the set of responses are measured with respective survey questions likewise the standard deviation measures the dispersion of each mean. The evaluation has been made with comparing the overall mean of each team or analysis with respective mean result of each the items with moderate, modest and lower. In related to that the scale has range 1 -1.80 (strongly agree), 1.81 - 2.60 (do not agree), 2.61 - 3.40 (true to some extent) 3.41 - 4.20 (agree) and 4.21 - 5(strongly agree).

Tab**le 4.2 Percentage Analysis Descriptive Statistics on Employee Involvement**

Items		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	Employees are involved in audits of the health and safety system/practice	10.9 %	19.6 %	21.7 %	35.9 %	12 %	3.18	1.20
2	Employees are involved in workplace health and safety risk assessment	8.7 %	20.7 %	26.1 %	33.7 %	10.9 %	3.17	1.14
3	Employees are involved in the review of a policy statement.	16.3 %	20.7 %	40.2 %	18.5 %	4.3 %	2.73	1.07
4	Employees are involved in the design of work processes.	10.9 %	17.4 %	34.8 %	25 %	12 %	3.09	1.15
5	Employees are involved in hazard detection, prevention and control activities.	8.7 %	19.6 %	18.5 %	33.7 %	19.6 %	3.35	1.24

	Overall Mean and SD of Employee involvement	3.11	0.86

Source: own survey 2023

The above table is illustrated employee involvement in the implementation of the occupational health and safety management system as well as audits of its effectiveness and efficiency contributes to the success of the safety and health system has overall mean result M=3.11/0.86SD. The first survey assessment EPHARM's employees were asked to give their opinion on if employees are involved in audits of the health and safety system or practice has moderate M=3.18 compared with the actual mean M=3.11 indicating most of employees are engaged in audit of OSHMS at agreed 35.9%(n=33), 21.7 %(n=24) were neutral but 20.7 %(n=19) disagreed. Likewise, employees were assessed if Employees are involved in workplace health and safety risk assessment and responded at average M=3.17 has also moderate level with majority of 33.7 %(n=31) respondents agreed but 20.7% were declined and 26.2 %(n=24) of participants responded neutral.In other case, employees were asked if they were involved in the review of a policy statements has M=2.73 which is lower than the overall mean 3.11and it shows most of the participants neutral on this case at 40.1% (n=37) and only 18.5 % consent while 20.7% (n=19)employees disagreed. Employees were asked if they were involved in the design of work processes has average M=3.09 which is lower than the overall mean, the majority 34.8% (n=32) said neutral,25 %(n=23) agreed, which indicating there is less participation from employees in this assessment. On the other assessment if employees are involved in hazard detection, prevention and control activities,the response has M=3.35 modest level agreement at 33.7% (n=33) it shows that employees are participating in hazard detection and prevention.

As the result the above data has shown that employee involvement in the overall OSHMP inclined the existence of the practice however the company expected to work diligently for improving workers involvement based on the above assessments or in general, especially reviewing a policy statement and the design of work processes.

Table 4. 2: Percentage Analysis Descriptive Statistics on Training and Awareness on OHS

	Items	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	Employees are aware of the use of personal protective equipment	3.3 %	3.3 %	16.3 %	45.7 %	31.5 %	3.98	.954
2	Employees know how to contribute to the work place's health and safety practices.	%	6.5 %	18.5 %	46.7 %	28.3 %	3.96	.857
3	Employees are familiar with equipment they are working with.	16.3 %	20.7 %	40.2 %	18.5 %	4.3 %	4.09	.771
4	The procedures for reporting injuries are understood by employees.	10.9 %	17.4 %	34.8 %	25 %	12 %	3.83	.963
5	When there is an emergency, employees are aware of what to do.	2.2 %	3.3 %	18.5 %	45.7 %	30.4 %	3.98	.907
	Overall Mean and SD of Training Awareness on OHS						3.97	.664

Source: own survey 2023

The research has surveyed questionnaire regarding employee's training and awareness on OHS at Ethiopian Pharmaceutical Manufacturing Share Company (EPHARM) likewise in order to understand and obtain inputs on occupational health and safety in the workplace the research was interested to know whether the employees are aware of using personal protective equipment (PPE) then the majority of participants voted modest M =3.98/.954SD in this case 45.7%(n=42) of employees report agree with strongly agree 31.5%(n=29)however 3.3%(n=3) disagree and also16.3%(n=15) of employees were neutral on this case. It specifies that employees are familiar with usage of personal protective equipment. Employees' understanding the elements of the work place safety and health practices and knowledge and their contribution towards the practices was the other statement forwarded to the participants with massive agreement score 46.7%(n=43) also strongly agree 28.3%(n=26),18.5 %(17) of respondents were neutral and the rest were not agreed 6.5 % (n=6) then mean output obtained from the survey has M=3.96/.857SDwith slightly lower mean compared with the overall mean which basically communicates that employees aware of workplace safety and health practice.The other survey question was if employees are familiar with equipment they are working with. This statement had highest M=4.09/.771SD rate the respondents were agreed with massive 53.3 %(n=49)and 4.3 %(n=4) not agreed,the result affirmed that employees are knowledgeable about equipment/machinery they are handling, however12 %(n=11) employees were counted neutral. Understanding the procedures for reporting injuries, incidents potential hazards was another

concern of the survey which ended up with lower M=3.83/.963SD than with the actual mean 3.97 ,in this case 32.8% respondents (n=32) were agreed on this point but 29.3% (n =27) were not agreed and 26.1% (n=24) respondents were preferred to stay neutral.

The last survey question in this section was if employees know how to act during the time of emergency received modest mean M=3.98/.907SD45.7 %(n=42) respondents were agreed towards this statement, but 3.3% (n=3) respondents disregard it and 18.5% (n=17)of participants were remain neutral.

To sum up, the overall analysis on training awareness on OHS after assessing the mean M=3.97/.664SDandthe result confirmed that employees are alerted about OHS training they receive.

Table4. 3: Percentage Analysis Descriptive Statistics on Leadership commitment

Statements		Stro.Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	Managers pay attention to safety.	5.4 %	17.4 %	32.6 %	35.9 %	8.7 %	3.25	1.02
2	Managers/supervisors do not like employees working in unsafe ways.	4.3 %	13 %	26.1 %	41.3 %	15.2 %	3.50	1.04
3	First aid supplies are easy to find.	3.3 %	20.7 %	28.3 %	31.5 %	16.3 %	3.36	1.08
4	Managers and supervisors talk to employees about safety issues.	8.7 %	25 %	27.2 %	27.2 %	12 %	3.08	1.16
5	Health and safety goals and expectations are communicated to employees by the management.	6.5 %	22.8 %	30.4 %	33.7 %	6.5 %	3.10	1.04
6	Personal protective equipment is provided to employees to do their job.	5.4 %	17..4 %	16.3 %	46.7 %	14.1 %	3.46	1.10
7	If safety is compromised, work stops immediately.	5.4 %	18.5 %	26.1 %	33.7 %	16.3 %	3.36	1.12
8	The management has taken steps to reduce stress in the work place within 12 months.	13 %	23.9 %	33.7 %	25 %	4.3 %	2.83	1.08
9	There is a written safety and health policy in place.	6.5 %	8.7 %	30.4 %	33.7 %	20.7 %	3.61	1.22
10	The company audits its safety	7.6	10.9	34.8	37	9.8		

	and health practices on a regular basis.	%	%	%	%	%	3.30	1.04
11	All parties are being worked with by the occupational safety and health committee.	6.5 %	15.2 %	32.6 %	37 %	8.7 %	3.26	1.03
12	The management keeps records of accidents and hazards.	7.6 %	7.6 %	37 %	38 %	9.8 %	3.34	1.02
13	Medical examination is required for employees engaged in hazardous work.	7.6 %	12 %	14.1 %	44.6 %	21.7 %	3.60	1.17
14	The management has enough resources to implement the OS&H program.	7.6 %	17.4 %	29.3 %	35.9 %	9.8 %	3.22	1.09
	Overall Mean and SD of Leadership Commitment						3.31	.652

Own Survey 2023

As table 4.4 illustrated, Leadership Commitment questionnaire has 14 items that measures the leadership commitment of Ethiopian Pharmaceutical manufacturing‘s safety and health practices. The first survey assessed was if managers pay attention to safety.Respondents rated M=3.25/1.02SD which is lower than the overall mean 3.31/0.652SD that 35.9 %(n=33) participants agreed and 32.6 %(n=30) of respondents were remain neutral but 17.4% respondents disagree which indicates that the management still needs improvement on proactively engagement for safeguarding employee’s safety and health. On other hand, the participants responded regarding that managers do not like employees working in unsafe ways has received modest M= 3.5/1.04SDwhich 41.3% (n=38) of respondents agreed but 13 %(n=12) of employees not agreed and the rest 26.1 %(n=24) of respondents found neutral. It shows the management is strictly intolerant for risky situations.

The statement “First aids are easy to find at work”rated with modest M=3.36/1.08SDrespondents were given their agreement at 31.5% (n=29),20.7 %(n=19) of respondents disagreed and 28.3 %(n=26) of participants were remain neutral.This shows first aid supplies are available to be used easily. Managers and supervisors talk to employees about safety issues was another inquiry which received below mean rate3.08/1.16SD and the result found that 27.2 %(n=25) respondents were agreed on this statement 8.7%(n=8) of respondents oppose it and theremain12%(n=11) were neutral .Following the questionnaire asked employees about whether the managers communicates regarding health and safety goals or expectations then participants ,provided their

opinion and has got lower average3.10/1.04SD rate with the condition 33.7%(n=31) of participants consent on this issue but 22.8%(n=21) disagreed and 30.4% (n=28) of respondent were found neutral. It shows the management gives less attention for safety goals or expectations as most of respondents claimed it.

The other inquiry was if employees were provided personal protective equipment to do their job.The participants gave their response with modest mean rate 3.46/1.10SD and most of employees inclined to agree with massive at46.7 %(n=43) others17.4 %(n=16) voted disagree, and 16.3 %(n=15) of employees voted neutral. As the survey ascertain that most EPHARM employees were agreed that personal protective equipment is provided them to do their task.

When come to the other inquiry that if there is risk situations then it would compromised at immediately, received modest M=3.36/1.12SD.In this case most of respondents agreed at 33.7% (n=31) ,15.4%(n=5) of participants responded disagree and 26%(n=15) participants were neutral. The management compromises risky situations at immediate as majority of participants consented.The employees were asked if the management has taken stress reduction conditions within 12 months and the response received lowest M=2.83/1.08SDaverage while comparing with the overall leadership commitment mean which is declined and it shows that most of 33.7%(n=31) respondents were neutral, 23.9%(n=22) of respondents disagreed however only 25%(n=23) respondents agreed.Consequently the survey found that the management is not working in stress management situations.Respondents asked if there is a written safety and health policy in pharmaceutical company and the result shows highest M=3.61/1.22SDwhich is evidenced that they have written health and safety policies to maintain a safe working environment, in this manner 33.7% (n=33) of respondents confirmed agreed but8.7%(n=8) of respondents declined while 30.4% (n=28) of respondents were neutral.The inquiry surveyed if the company audits it is safety and health practices on regular bases,the response received lower mean 3.30/1.04SD score,confirming 37%(34) respondents were agree, contrary 10.9%(n=10) were disagreed and 34.8% (n=32) of respondents were remain neutral. All parties are working with the occupational safety and health committee was another interesting inquiry that employees were asked and the mean received lower M=3.26/1.03SD with 37 %(n= 34) respondents agreed meanwhile 32.6 %(n=30) respondents were responded neutral and all other remain 15.2 %(n=14) respondents disagreed. It shows there is no communication between OHS committee and employees.

Management records and registers occupational a disease in the company has got modest M=3.34/1.02SD. It was recognized by 38 % of (n=35) respondents agreed but 37 %(n=34) of respondents remain neutral and 7.6 %(n=7)of employees responded disagree. This shows employees are aware of record keeping and registering of occupational accidents or diseases.

The remain two inquiries were employees asked was if medical examination is required for employees engaged in hazardous work and the management had enough resources to implement the OS&H program. Then health checkups for employees performing hazardous work received modest average M=3.60/1.17SD,demonstrating good management support with massive 44.6% (n=41) of respondents agreed however 12 %(n=11) of employees not agreed and14.1 %(n=13) of respondents were neutral on the issue. It proves there is medical access for hazardous situations.

Lastly, the survey forwarded if company had enough resource to do OSH practices at work and received lowest M=3.22/1.09SD score for this statement with massive 35.9%(n=33) agreementshowever17.4 %(n=16) of respondents oppose it and 29.3% (n=27) of participants claimed neutral on this condition.

Therefore,the overall mean responses of employees regarding leadership commitment to health and safety practices at EPHARM is 3.31/.652SD which shows the leadership commitment of the company on OSH is moderate,especially medical access for hazardous situations and written safety and health policy was excellent however the management should improve working attentively on giving attention for safety issues, providing continuous personal protective equipment and communicating safety and health goals,

Table 4. 5: Percentage Analysis Descriptive Statistics on Challenges Implementing OSHMS

Items		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	There was a lack of commitment from management	12 %	15.2 %	34.8 %	27.2 %	10.9 %	3.09	1.15
2	Lack of resources to carry out the program.	9.8 %	19.6 %	32.6 %	30.4 %	7.6 %	3.06	1.09
3	Lack of employee awareness about safety and health practices	14.1 %	18.5 %	28.3 %	29.3 %	9.8 %	3.02	1.20
4	Scarcity of professional	15.2	19.6	21.7	33.7	9.8		

	expertise	%	%	%	%	%	3.03	1.24
5	Absence of continuous information exchange	7.6 %	17.4 %	19.6 %	37 %	18.5 %	3.41	1.19
	Overall Mean and SD of Challenges Implementing OSHMS						3.12	.911

Source: Own survey 2023

As the table 4.5 illustrated that the overall results computed on challenges implementing OSHMS at EPHARM has mean score 3.12/0.911SD. The first assessment on lack of demonstrated commitment by management is one issue employees were rated lower M=3.09/1.15SDcompared with the overall mean 3.12and 34.8 %(n=32) of responses dominated neutral while 27.2 %(n =25) of respondents agreed but 15.2 %(n=14) of respondents oppose it.It is clear that the majority of participants not sure of lack of management commitment was challenging for OSH practices. The next question was employees were asked if there is scarcity of resources to deliver OHS then the mean received lower M=3.06/1.09SDwith highest 32.6 %(n=30) neutral responses and30.4 %(n=28%)of employees agreed and in contrary the rest 19.6 %(n=18) of participants responded disagree. It indicates a significant percentage of respondents have claimed lack of resources to run the OSH programs while others impartial on it.

On the other hand, lack of safety and health awareness among employees have been surveyed and the result of the investigation received lower M=3.02/1.20SD hence 29.3 %(n=27) of respondents acknowledged the statement is true with strongly agreed at 9.8 %(n=9)while 18.5% (n=78) of participants denied and 28.3 %(n=26) of respondents appear to be neutral. It implies the management is expected to take comprehensive steps to increase employee awareness on safety and health practices, such problems are likely to cause occupational accidents. Lack of professional competence was an issue scored lower M = 3.03/1.24SD, most of 37% (n=34) respondents consent on this issue but 18.5% (n=17) of respondents disagreed and the rest 19.6 %(n=18) of respondents preferred to remain neutral. It requires management attention for lack of expertise on OSH.

The missing continuity information is the last statement with modest M=3.4/1.19SD, the majority37% (n=34) of participants supported the information flow, 21.7 %(n=20) of participants responded neutral but19.6% (n=18) of participants disagree opinion that the information flow poses challenges to OSH implementation. As result, the overall mean M=3.12/0.99SD for challenges in implementing occupational health and safety measured issues

for improvements, especially absence of continuous information exchange and scarcity of professional expertise had received higher responses indicating these are the main challenges for the company.

Table 4. 4: Causes of Occupational Hazards

	Causes of Occupational Hazards	No of YES	Percent	Rank
1	Design and layout of work process/flow	60	65.2	2
2	Poor ventilation, lighting and pressure	59	64.1	3
3	Non-compliance of employees with basic applications of personal protective equipment	59	64.1	3
4	Stress	57	62	5
5	Inefficient equipment, machinery, devices and tools	56	60.9	7
6	Poor Housekeeping/sanitary practices	53	57.6	9
7	Excessive noise	50	54.6	10
8	Inconvenience/uncomfortable/ergonomic work factor	67	72.8	1
9	Lack of personal protective equipment	57	62	5
10	Unsafe application of chemicals	34	37	13
11	Long working hours	33	35.9	14
12	Repetitive motion/body movement work pattern	44	47.8	11
13	Working shift	54	58.7	8
14	Transmissible biological contagious infection	27	29.3	15
15	Unsafe/unprotected equipment	40	43.5	12

Source: Own survey 2023

The above table 4.6which illustrates that72.8 %(n=67) of respondents confirmed that Inconvenience/uncomfortable/ergonomic work factor has been registered as number one causing factor at EPHARM.Design and layout of work process has followed as the second causing factor at 65.2 %(n=60).This was evidenced by Cole (1990) that heavy manual work may create ergonomic risks when moving materials and equipment if mechanical devices are not available. Zaebst's (2011) has also studied that due to the enclosed design of pharmaceutical workplace

modules, workers are often located close to machines during manufacturing and packaging operations. Non-compliance of employees with basic application of personal protective equipment and poor ventilation lighting and pressure comes third with 64.1 %(n=59).This is also demonstrated by Cole and Gennaro (1990) that a reluctance to be subject to guidelines and standards related to safety guidelines when using protective equipment and clean workplace and equipment surfaces, and high efficiency particulate air (HEPA) filtered ventilation systems.

Stress and lack of personal protective equipment are the other factors both contributed 62% (n=57) of accidents with that of inefficient equipment machinery and equipment tools60.9 %(n=56),Work shift58.7 %(n=54) and Poor Housekeeping57.6% (n=53). Gennaro (1990) Swarbick *et al.* (1996) have corroborated that Pharmaceutical packaging operations are performed with a series of integrated machines and repetitive manual tasks and additional the mechanical equipment fills caps, labels, cartons and packs. 43.3 %(n=40) of respondents confirmed high risk of accidents increases significantly when personal protective equipment is ignored.

Moreover, the survey result revealed that unsafe application of chemicals at 37% (n=34), working long hours at 35.9% (n=33), and biologically transmitted diseases at 29.3%(n=27)are registered as the least causes of accidents at the company.

The above result has shown that uncomfortable ergonomic work factor is accounted to the main causes of occupational accident at EPHARM,design and layout of work flow follows the second most accident and poor ventilation, lightening and pressure, noncompliance of basic application of personal protective equipment are listed as the third causes of occupational accidents Furthermore, transmissible biological contagious infection listed as the least causing factor among the other causes of accidents.

4.7 Employee Commitment

Integrating attitudinal and behavior commitments,Meyer and Allen(1991) have classified commitment into the following three components affective commitment an individual's emotional attachment to organization , continuance commitment (a result of intention to stay with organization in relation to the rewards for staying and costs of leaving) and normative commitment(a feeling of obligation that an individual stays with organization).

Based on the above behavior and attitudinal commitments, this section discusses the above three employee commitments. Moreover, the survey questionnaire analyzed with percentage description, mean, and standard deviation also included eight assessment items for affective and continuance commitment and seven assessment items for normative commitment. The Likert 5 scale has been established to inquire respondent's agreement, disagreement and isolation levels which significantly stipulates moderate ,modest and lower scales comparing with the overall mean.

Table 4.5: Affective Commitment

	Statements	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	I would love to stay with this organization for the rest of my career.	3.3 %	4.3 %	29.3 %	28.3 %	34.8 %	3.86	1.05
2	I like talking about my organization with people outside it.	3.3 %	3.3 %	31.5 %	26.1 %	35.9 %	3.92	1.00
3	I feel like the organization's problems are my own.	2.2 %	6.5 %	18.5 %	34.8 %	38 %	4.00	1.01
4	I think I can attach to another organization as I am to this one.	1.1 %	3.3 %	18.5 %	34.8 %	42.4 %	4.14	.908
5	I feel part of the family at my organization.	%	9.8 %	20.7 %	30.4 %	39.1 %	3.98	.999
6	I feel emotionally attached to this organization.	4.3 %	14.4 %	31.5 %	18.2 %	31.5 %	3.54	1.21
7	This organization has a lot of meaning for me.	2.4 %	3.3 %	21.7 %	34.6 %	38 %	4.14	.871
8	I feel like I belong to my organization.	5.4 %	11.8 %	22.8 %	20.8 %	39.1 %	3.80	1.21
	Overall Mean and SD of Affective Commitment						3.93	.598

Own survey 2023

As shown on the above table 4.7, mean scores range from moderate M=3.54 to M=4.14 modest. This means that respondents tend to agree, disagree and neutral with most points about a particular emotional attachment scale.

The first Survey obtained from statement those 28.3 % (n=26) respondents decided to take mostly agreed stance on they would love to stay with this organization for the rest of their career scored mean lower M= 3.86/1.05SD also strongly agreed 34.8 %(n=32) but 4.3% (n=4) of

respondents were disagreed and 29.3% (n=27) remain neutral. The output of the mean shows lower than the actual mean3.93 indicating that majority of the participants are neutral to stay the rest of their life in the company while I like talking about my organization with outside people has scored M= 3.92 which indicating 26.1%(n=24) of respondents agreed with strongly agreed 37% (n=34) but 3.3% (n=3) disagreed and 31.5% (n=29) of respondents were neutral. It shows that employees are agreed on some point but not all. Similarly, employees supported on these statements "I feel like the organization's problems are my own" has also received modest M= 4.04 with 34.8% (32) of participants responded agreed plus strongly agreed at 39.1 %(n=36) but 6.5% (n=6) not agreed and 18.5 %(n=17) of respondents were remain neutral. It shows the majority of participants are consent to this concern. In other case the statement "I think I can attach to another organization as I am to this one". Has received modest average M=4.14 indicating most of 34.8 %(n=32) respondents were agreed and strongly agreed 42.4 %(n=39) but 3.3 %(n=3) disagreed and18.5% (n=17) were remain neutral. Consequently the participants claimed they can attach to other organization just like their company. Likewise the majority 30.4% (n=28) of respondents agreed on the statement that they feel as a part of the family at their own organization has received M= 3.98 with strongly 39.1% agreed but 9.8 %(n=9) of respondents disagreed and 20.7 %(n=19) responded they remain neutral, it indicates that most of employees have positive aspect for the company they work. The statement "I feel emotionally attached to this organization '' has received mean score M = 3.54, which is lower than the actual mean 3.93 showing lack of emotional attachment to the company and in this case 31.5%(n=29) of respondents consent at some time neutral while 14.4%(n=44) of employees were disregard it.

The two last statements "this organization has a lot of meaning for me" with modest mean score M= 4.14 that 32.6 %(n=30) of respondents agreed, 21.7% (n=20) respondents were neutral and 3.3 %(n=3) of participants oppose the idea. This indicates that the organization has a high degree of personal importance in the minds of respondents. At last, employees responded the statement "I feel like I belong to my organization". Which received lower mean score M=3.80 that 22.8 %(n=21) participants responded agreed plus strongly agreed 39.1 %(n=36) but 11.8% not agreed and 22.8 %(n=21) of respondents were remain neutral.It shows that some of participants have perceived their belongings to the company.

As the result, affective (emotional) commitment of employees toward the organization has an average M=3.93, it shows most of survey participants agreed that how emotionally collaborative toward to their organization which is a great opportunity for creating organizational citizenship sense from the employee commitment.

Table 4. 6: Employee Commitment (Continuance commitment)

	Statements	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	Mean	SD
1	I am afraid of what might happen if I quit my job.	12 %	20.7 %	34.8 %	17.4 %	15.2 %	3.03	1.21
2	It would be very difficult for me to leave my job right now.	7.6 %	23 %	23.9 %	27 %	18.5 %	3.21	1.22
3	If I left my organization now, there would be too much disruption in my life.	8.7 %	23.9 %	34.8 %	19.6 %	1 %	3.04	1.14
4	I would have to pay a lot to leave my organization now.	8.7 %	17.4 %	29.3 %	28.3 %	16.3 %	3.26	1.18
5	It is a matter of necessity for me to stay with my organization.	3.3 %	15.2 %	37 %	31.5 %	13 %	3.35	1.00
6	I think I have enough options to leave this organization.	7.6 %	15.2 %	32.6 %	33.7 %	10.9 %	3.25	1.08
7	The scarcity of available alternatives is one of the few serious consequences of leaving this organization.	5.4 %	18.5 %	32.6 %	30.4 %	13 %	3.27	1.08
8	One of the primary reasons I continue to work for this organization is that leaving would necessitate significant personal sacrifice-another business man not provide the same overall benefits that I do.	5.4 %	26.1 %	28.3 %	32.6 %	7.6 %	3.10	1.05
	Overall Mean and SD of Continuance Commitment						3.19	.665

Source: own survey 2023

The above table 4.8 shows there are 8 survey assessments for continuance commitment, rewards and cost of leaving the organization would trigger employees to stay within the organization

which implies continuance commitment .In order to analyze the result the Likert scale has been used to give the agreement, disagreement and neutral levels while the standard deviation shows dispersion of the standard deviation.

The first survey assessment of this category was “I am afraid of what might happen if I quit my job” and received lower mean score 3.03 most of 34.8 %(n=32) respondents were preferred neutral on this case only 17.4 % (n=23) respondents were agreed in this stance and 20.7 %(n=19) of participant oppose the idea. It shows the majority of respondents are not afraid if they resign from the jobs.

On the other hand the statement “It would be very difficult for me to leave my job right now” had modest mean 3.21 that the majority of 27% (n=25) participants agreed 23.9 % respondents remain neutral but 23% (n=24) participants were disagreed. As result the participants admitted that it is difficult to quit the job right now. Similarly, the statement “If I left my organization now, there would be too much disruption in my life.” hadlower M= 3.04 score hence 34.8% (n=32) of respondents were neutral in terms of how life would be disrupted if he/she decided to leave the organization only 19.6 %(n=18) respondents agreed on opinion that another organization might not match the overall benefits offered by their current employer but 23.9%(n=22) declined on this opinion. It shows the majority of respondents disregard this opinion.

The statement "It would have to pay a lot to leave my organization now”, had modest mean M=3.26 this statement was impartial by 29.3% (n = 27) of respondents while 28.3% (n = 26) took agreed stance however 17.4% they oppose the idea. Most of respondents perceived the risk of leaving the company.On the other hand, 31.5% (n=30) of respondents admitted that they claimed a matter of necessities for staying in the organization had received modest M=3.34 while 15.2% (n=14) of respondents denied and 37% (n=34) of respondents were remain neutral. The majority of 33.7% (n=31) respondents claimed that one of the few serious consequences of leaving this organization is lack of available alternatives and got modest mean M=3.35 but this statement was declined by participants 15.2 %(n=14) and 32.6(n=30) of respondents voted neutral.

Lastly the survey statement forwarded to the participants that employees foremost fear was that leaving would necessitate significant personal sacrifice-another business man not provide the same overall benefits that they do has received lower M=3.10, 32.6% (n=30) of respondents

agreed while 28.3%(n=26)of participants claimed neutral but 26.1%(n=24) declined for this opinion. This shows most of are not afraid of leaving for benefits they received from the company and other companies may not provide.

Consequently, the overall average mean M= 3.19 for continuance commitment as indicated that most of participants perceived the risk of leaving the company while others admitted that one of reasons leaving this organization is lack of available alternatives also claimed it is difficult to quit the job right now however a few participants declined that there would be too much disruption in my life and are not afraid if they resign from the job right now.

Table 4. 7: Employee Commitment (Normative commitment)

	Statements	gly Disag ree	Disag ree 2	Neutr al 3	Agre e 4	Stron gly Agre e	Mean	SD
1	I think that people these days move from company to company too often.	3.3 %	16.3 %	28.3 %	27.2 %	25 %	3.45	1.14
2	I think a person must always be loyal to his or her organization.	28.3 %	22.8 %	18.5 %	19.6 %	10.9 %	3.30	1.00
3	I think jumping from organization to organization is unethical.	6.5 %	15.2 %	22.8 %	30.4 %	25 %	3.10	1.23
4	One of the main reasons I still work for this organization is that I feel a sense of moral obligation to stay because I believe that loyalty is important.	6.5 %	15.2 %	25 %	31.5 %	21.7 %	2.70	1.26
5	I feel right leaving my organization if I got another offer for a better job.	22.8 %	29.3 %	20.7 %	16.3 %	10.9 %	3.09	1.44
6	I was taught to be loyal to my organization.	7.6 %	6.5 %	18.5 %	38 %	29.3 %	3.38	1.34
7	I think it's smart to want to be a company man or a company woman anymore.	13 %	29.3 %	31.5 %	13 %	13 %	3.21	1.31
	Overall Mean and SD of Normative Commitment						3.00	.737

Source: own survey 2023

According to Table 4.9, most employees were agreed on the statement “I think that people these days move from company to company too often” has received modest M=3.45, 28.3 %(n=26) of respondents agreed and neutral at the same time but 17.4 %(n=16). It indicates that majority of participants concur on this opinion. The second statement was forwarded to employees were If employees must always be loyal to his or her organization and received modest M=3.30 the

majority 45.7 %(n=42) of participants were agreed on point however 19.6 %(n=18) were declined and 23.9 %(n=22) were remain neutral. The statement "I think jumping from organization to organization is unethical" has got modest M=3.30 score most of participants 32.6 % (n=30) agreed while 19.6% (n=18) of participants were disagreed and 22.8% (n=21) were neutral.

Participants were asked the main reason for still working for this organization and if they feel a sense of moral obligation to stay because they believe that loyalty is important, in this case most of survey result inclined to lower M= 2.70 that means 25 %(n=23) of respondents voted neutral, 22.8%(n=21) of participants agreed but 21.7%(n=20) of employees disagreed.

Similarly, Employees were also asked if they thought it was right to leave the company and work elsewhere for better terms has got moderate M=3.09 then 22.8%(n=21)of respondents agreed however 15.2% (n=14) of employees disclaim and 19.6%(n=18) of participant remain neutral on this stance."I was taught be loyal to my organization" has received modest M= 3.38, in this case majority of 34.8 %(n=32) of respondents agreed however 9.8 %(n=9) of employees declined and 18.5 %(17) were neutral.

According to the survey, participants voted at modest mean M=3.21that 31.5% (n=29) of participants neutral about a smart to be a company man or a company woman anymore while 13 %(n=12) of respondents stand disagree only 19.6 %(n=18) agreed on this statement.

Therefore the overall average mean M= 3.19 for normative commitment of EPHARM employees has slightly a sense of obligation to the company despite some responses are claimed be true.

The result of most of respondents are perceived that these days people move from company to company too often likewise participants admitted that jumping from organization to organization is unethical also consent on employees must always be loyal to his or her organization and taught be loyal to my organization. Moreover, participants believed that it is smart to want to be a company man or a company woman anymore. However, most participants disclaimed that still working for this organization and if they feel a sense of moral obligation to stay.

Table 4. 8: Group Mean Value of Variables

Descriptive Statistics				
Group Mean		N	Mean	Std. Deviation
1	Employee Involvement	92	3.1109	.86564
2	Training Awareness on OSHMP	92	3.9761	.66421
3	Leadership Commitment	92	3.3110	.65267
4	Challenges Implementing OSHMP	92	3.1261	.91181
5	Causes of Accidents and Hazards	92	1.4609	.24303
6	Affective Commitment	92	3.9321	.75358
7	Continuance Commitment	92	3.1929	.65555
8	Normative Commitment	92	3.0062	.73728
	Overall Mean	92	3.0457	.26337

Source: own 2023

As table 4.10has shown, the overall average of general questions regarding the existence of occupational safety and health management practices appeared to be positive, although the introduction of occupational safety, health management system poses lack of commitment. Overcoming challenges is an important aspect of program implementation and a measure of leadership commitment hence, health and safety training and awareness has modest average score of 3.97, indicating that most of respondents were mostly likely agree on modest level to the items provided. For leadership engagement, an average rate 3.31 which indicate the employee's positive attitude toward about their company. Employee involvement is another area of independent variables which respondents implied moderate agreement at average score 3.11. This result indicates that employee involvement in workplace safety is somehow low and it needs management attention.

An average score for affective commitment is 3.93 which is the highest mean compared with that of continuance commitment mean value 3.19 and normative commitment lowest mean value 3.00, it stipulates that most of employees are more committed on affective commitment.

Furthermore, variables included for examining occupational safety and health management practice are challenges implementing the OSHMP and causes of accident or hazards. The assessment made for causes of accidents is based on rank and average and the mean has1.46/2 it shows most of participants inclined to yes while the challenges implementing the OSHMP is using Likert scale and the mean has 3.12 point which is moderate level.

Table 4. 9: Correlation Analysis

Correlations					
		Employee Commitment (Dependent Variable)	Employee Involvement	Training Awareness on OSHMP	Leadership commitment
Employee Commitment (Dependent Variable)	Pearson Correlation	1	.259*	.308**	.331**
	Sig. (2-tailed)		.013	.003	.001
	N	92	92	92	91
Employee Involvement	Pearson Correlation	.259*	1	.417**	.601**
	Sig. (2-tailed)	.013		.000	.000
	N	92	92	92	91
Training Awareness on OSHMP	Pearson Correlation	.308**	.417**	1	.257*
	Sig. (2-tailed)	.003	.000		.014
	N	92	92	92	91
Leadership commitment	Pearson Correlation	.331**	.601**	.257*	1
	Sig. (2-tailed)	.001	.000	.014	
	N	91	91	91	91
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

Source: SPSS output

Correlation analysis in the above table 4.11 confirmed that a positive correlation between occupational health and safety variables and employee commitment which the variable employee involvement is correlated with employee commitment at .259 point and it has positive significance level at 0.13 which is less than 5% (0.05) significance level. On the other hand, the results of training awareness on OSHMP and leadership commitment also correlated with employee commitment at .308 and .331 points respectively. Similarly their positive significant level also accounted at .003and.001points respectively which is less than 5 %(0.05).

In related to these Tarik *et al.*'s (2020) as evidenced on their study and indicated Zacharias's *et al.* (2005), Waring (1999) and Pollitt (2011) safety and health and employee commitment have strong positive relationship among occupational health and safety, employee commitment and employee performance.

The findings of Kaynak *et al.* (2016) also proved that safety and health training had positive correlation with organizational commitment. This is findings also concurrent with the OSHA (2016) that safety and health education and training is very essential because it provides practical and theoretical knowledge.

Table 4.12. 1Regression Analysis Model Summary

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.403[a]	.162	.133	8.10538	.162	5.609	3	87	.001	2.013
a. Predictors: (Constant), Leadership Commitment, Training Awareness on OSH, Employee Involvement										
b. Dependent Variable: Employee Commitment										

Source: SPSS Output

The research has used multiple regression analysis to assess the impact of occupational safety and health management practices on employee commitment.

As the previous chapter set hypothesis to justify the result and about eight hypotheses have been created with the null (H_0) and alternative (H_A) hypotheses for each variable.

a. H_0 Occupational safety and health management has no significant effect on employee commitment
b. H_A Occupational safety and health management has significant effect on employee commitment
1. H_0 employee involvement has no significant effect on employee commitment
2. H_A employee involvement has significant effect on employee commitment
3. H_0 training awareness on OSH no significant effect on employee commitment
4. H_A training awareness on OSH has significant effect on employee commitment
5. H_0 leadership commitment has no significant effect on employee commitment
6. H_A leadership commitment has significant effect on employee commitment

The above model summary has indicated the combination effect of all variables R is 0.403(40.3%) while adjusted R^2 is 0.133(13.3%).This implies that the independent variables occupational safety and health management practice proved 13.3% of employee commitment.

Moreover, the Durbin and Watson (DW) (1950) assume that test static for their test of first order auto regressive regression disturbances. This assumption uses ranges from 0-4 and the Durban Watson value shall be close to 2 to meet the assumption while the value <1 and >3 will not meet this assumption.

Therefore, the above table 4.12 shows as the value of Durban Watson value between the predictor and the response variable was 2.0 and it was within the range of 0 to 4 and it is satisfactory point and stipulates that the residuals are independent and uncorrelated each other thus assumption of independency assumption between residuals was met and the assumption was satisfied.

Table 4.12. 2ANOVA Summary

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1105.489	3	368.496	5.609	.001[b]
	Residual	5715.654	87	65.697		
	Total	6821.143	90			
a. Dependent Variable: Employee Commitment						
b. Predictors: (Constant), Leadership Commitment, Training Awareness on OSH, employee commitment, Employee involvement						

The **ANOVA** result indicates that the significance of F is 0.001 which is less than 0.05. It implies there is a positive significant effect between occupational safety and health management practice and employee commitment.Therefore, it implies hypothesis H_0 is rejected and the alternative H_A explains there is significance effect of occupational safety and health management practice on employee commitment.

Table 4.12. 3Coefficients

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF

1	(Constant)	54.900	6.083		9.025	.000		
	Employee Involvement	-.030	.261	-.015	-.113	.910	.566	1.768
	Training Awareness on OSH	.630	.281	.241	2.237	.028	.827	1.209
	Leadership Commitment	.263	.117	.278	2.260	.026	.638	1.566
a. Dependent Variable: Employee Commitment								

The above coefficient model table 4.12 C result shows the contribution of each predictor this shown by the regression equation $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$

Y=Employee commitment

β_0 =Constant$\beta_1 \beta_2 \beta_3$ are coefficients

X_1=Training Awareness on OSH

X_2= Leadership Commitment

X_3=Employee Involvement therefore,

$Y=54.900+0.630x_1+0.263x_2-0.030x_3$

The above regression model tells all constant variables holding training awareness on OSH;leadership commitment and employee involvement would be at unit of 54.900 likewise a unit increase training awareness on OSH could cause an increase in employee commitment by 0.630 also a unit increase in leadership commitment would cause increase in employee commitment by

0.263Buta unit decrease in employee involvement has caused decrease in employee commitment by -0.030.

Therefore, the research arrived with the conclusion by comparing the research hypotheses, this was confirmed by the significant P value is always less than (0.000 < 0.005). The result shows that P value of employee involvement is 0.910(91%) which is greater than 0.005(5%) then reject the H_A hypothesis and accept H_0, it explains employee involvement has no significant effect on employee commitment.

On the other hand P value of training awareness on OSH has 0.028(2.8%)which is less than 0.005(5%)then reject the H_0 hypothesis and accept H_A explains training awareness on OSH has

significant effect on employee commitment. The last predictor leadership commitment has significant P value 0.026(2.6%)) which is less than 0.05(5%) then rejected hypothesis H_0 accept alternative $H_{A\ it\ explains}$ there is significance effect of leadership commitment on employee commitment.

Moreover,from the above table 4.12.3output concludes that all the correlation coefficient of the independent variable values have less than 8.The employee involvement value is 1.768 whereas training awareness on OSH value is 1.209 and leadership commitment value is 1.566which implies there is no the problem of multi collinearity in model under study and the assumption of non multicollinearity is satisfied ,this evidenced by Tabachinck and Fidell (2011) who assume that if correlations coefficients between the independent variables are > 8 or if the tolerance value is < 0.1 and the variance indicator factor among independent variables(VIF) is >10, it shows the presence of multi Collinearity in the model.

To demonstrative the findings from the above results, the research ascertains with the previous empirical studies. According to Wambui et al. (2018) in their study referred to Ngethe (2013) Muma (2014) and Gathungu et al. (2016) research found out that training plays a significant role in employee commitment, not only in the academic institutions and banking sector but also in other organizations.On the other hand, Acquah *et al.*(p,14 2021) as proved on their study , by referring a study conducted in china has showed that a strong relationship between affective commitment and physical well being of an employee indicates that organizational management must be concerned about the workplace ‘s OHS to improve employee commitment to have dedicated employees also the study examined the correlation between occupational health and safety and commitment to work, which illustrates the direct influence of OHS practices on organizational commitment; as workers thus have a favorable view of their job by the OHS organization, their emotional connection and connection with the company is strengthened .

Moreover,the findings of Umugwaneza *et al* (2019) and Tawiah, K. *et al.* (2022) have verified that safety and health practices are significantly affect employee commitment. These researches were done on building construction companies in Sri Lanka and steel manufacturing company in Rwanda.

CHAPTER FIVE

SUMMARY OF RESULTS, CONCLUSIONS AND RECOMMENDATIONS

This study investigated the effect of occupational health and safety management practice on employee commitment and the summary findings discusses primarily based on research questions, objectives in the previous chapter and drawn conclusions and recommendations.

Summary of Findings

- EPHARM's employees participates in audits of the health and safety system or practice, workplace health and safety risk assessment, and hazard detection, prevention and control activities however lacks less participation in review of a policy statements and design of work processes.
- Regarding assessment on training awareness on OSH revealed that employees are aware and familiar with using personal protective equipment, workplace safety and health practice, handling equipment/machinery, know how to act during the time of emergency but there is limitations understanding the procedures for reporting injuries, incidents or potential hazards.
- The leadership commitment of EPHARM played significant role in maintaining risky situations and compromises risky situations at immediate factor, provides first aid supplies easily, accommodate personal protective equipment, uses written health and safety policies to maintain a safe working environment, moderates record keeping and registers occupational accidents or diseases and it provides medical examination for hazardous situations. However, it lacks stress management, audit of safety and health practices on regular bases, communication between OHS committee and employees and gives less attention for OSH practices, safety goals or expectations.
- Participants claimed major challenges of implementing OSH practice are scarcity of resources, professional competence and absence of continuous information exchange.
- Uncomfortable ergonomic work factor is accounted to the main causes of occupational accident at EPHARM, design and layout of work flow follows the second and poor ventilation, lightening and pressure, noncompliance of basic application of personal protective equipment are listed as the third causes of occupational accidents.

Furthermore, transmissible biological contagious infection listed as the least causing factor among the other causes of accidents.

- The descriptive analysis on affective commitment found out that some employees are concurrent on taking about the organization to the outside people and they felt the organization's problems are their own, attach to other organizations just like did to this company, hold positive aspect toward the company they work, the organization has a high degree of personal importance in the minds of respondents and perceived their belongings to the company. However lacks emotional attachment to the company and majority of the participant's preferred neutral to stay the rest of their life in the company.
- Continuance commitment assessment has indicated that most of participants perceived the risk of leaving the company while others admitted that one of reasons leaving this organization is lack of available alternatives also claimed it is difficult to quit the job right now however a few participants declined that there would be too much disruption in their life and are not afraid if resigning from the job right now.
- In related to normative commitment most of respondents are perceived that these days people move from company to company too often likewise participants admitted that jumping from organization to organization is unethical also consent on employees must always be loyal to his or her organization and taught be loyal to my organization. Moreover, participants believed that it is smart to want to be a company man or a company woman anymore. However, most participants disclaimed that still working for this organization and felt a sense of moral obligation to stay.
- Correlation analysis confirmed that a positive correlation between occupational health and safety variables of employee involvement, training awareness on OSHMP and leadership commitment with employee commitment.
- There is a positive significant effect between occupational safety and health management practice and employee commitment. Training awareness on OSH has contributed the highest impact and leadership commitment follows however the research proved that employee involvement is not significantly affect employee commitment.
- The assumption of Durbin Watson stipulates that the residuals are independent and uncorrelated each other and independency assumption between residuals was met and the assumption was satisfied. Likewise the multi Collinearity assumption found out there is

no the problem of multi collinearity in model under study and the assumption of non multi collinearity was satisfied.

Conclusion

The research concludes that future studies could bench mark this thesis because the overall idea in this study was not only captured the impact of occupational safety health management practice on employee commitment but as well as studied occupational hazardous conditions in giant industries like pharmaceutical industries especially in Ethiopia.

In other words, the scope of the study contributes valuable road map to researchers to contribute related phenomena for this topic and also reliable data has been cited to add explanatory and exploratory theoretical backgrounds.

The findings of training awareness on OSH implicates that training is the backbone of among occupational safety management practices especially usage of personal protective equipment, reporting injuries and record keeping of accidents have alerting effect to shorten fatal or chronic accidents in the company. Moreover, the commitment of managers in safeguarding safety and health in the organization also the heart of the OSH practices that protect employee's physical or mental wellness. This can be achieved through integrating organizational safety and health strategy with the overall mission strategy and managers are the moderators to execute these core values and opportunities.

Furthermore, when revising the employee commitments, most of employees lacks emotional attachment to the organization because employee's participation in the overall OSH policies and practices are limited this was driven from especially less involvement of employees on the making of the design of work process despite affective commitment does not require feeling the organization with reasons.On other hand, the risk of leaving the company and lack of available alternatives may connect with the satisfaction level of employee on training they obtain, medical access, immediate control of accident factors and leadership commitment. A sense of morality and loyalty comes with when OSH practices are implemented efficiently and effectively then this was shown with the leadership commitment of the company that maintained risky situations at immediate factor.

Recommendation

- The research has been tried to gather reliable data on causes of accidents in the production area, unfortunately the research has gone with a milestone looking for documented reports that summarizes the overall data accidents and injuries, hence the research recommend that the management delegate competent supervisors who follows accident counts with registered on computer as well as manually well documented, in addition to that EPHARM is a reputed pharmaceutical manufacturing company in the country ,it must have organized resources and people person who opens doors for external researchers and others to learn about the company.
- As the employees demanded and the research proved that there is a limitation on training programs that has lacks consistency only conducted at the time of employment, this would have been a big issue in the company and the management should work in collaborative, modernized, types of training and continues assessment on training which the training are conducted through exchange programs locally or internationally , like strengthening their relation with external trainers who are professional on the subject.
- The company expected to work diligently for improving workers involvement through revising and reviewing the overall policy of the company with OSH policy and aligning work design process.
- Still the management needs improvement on communicating employees about safety issues and managing records of accidents and hazards. This can achieved through working with social committee or company's social responsibility moderators.

Limitations of the Study

- Despite the research has been gone with fruitful miles, the survey was unable to sample all respondents due to work shift of employee who work in night shifts while some of the employees were on their annual leave break that made the survey out number. There is a possibility of affecting the response on the result.
- The research has tried to collect review for related literature to make it best fit for the conclusion but it was difficult to have researches on this topic.

Review and reference pages

Abera Kumie, Tadesse Amera and Frank Gilliland (2016). Occupational Health and Safety in Ethiopia: A review Situational and Needs. Ethiop Health Dev.2016:30(1 spec iss):17-27

Assel Mousa Matar (2019).The role of Occupational Safety and Health Management Enhancing Employee Productivity in SMEs.Journal of University Study for Inclusive Research Vol.3 Issue 1 243-260 p, 248

Amponsah-Tawiah, K. and Mensah, J. (2016).Occupational Health and Safety and Organizational Commitment:Evidence from the Ghanaian Mining Industry. Journal of Safety and Health at work 7(3)

Barbara Romzek (1989). Personal Consequences of Employee Commitment. The Academy of Management Journal

https://www.researchgate.net/publication/325004378

Bandara S.M.M.S.K. and Perrea G.D.N.(2022).Impact of Health Safety Practice on Employee Job Performance Mediating Role of Employee Commitment in Selected Building Construction Companies in Sri Lanka, Partners Universal International Research Journal(PUIRJ)

Becker H (1960). "Notes on the Concept of Commitment".American Journal of Sociology, Vol. 66, pp. 32-42.

Benjamin O.ALLI (2008). Fundamental Principles of Occupational Health and Safety 2nd Edition, pages. 3, 9-12, 51-55

Carol Boyd(2004). Human Resource Management and Occupational Health and Safety.Routledge

Charles D. Reese (2003).Occupational Safety and Health Management'. A practical Approach

Christensen, L.B. (1997). Experimental Methodology. Massachusetts: Allyn & Bacon.

Claudine Umugwaneza, Okechuku Eugenia Nkechiand Jean Baptiste Mugabe (2019).Effect of Workplace Safety and Health Practices on Employee Commitment and Performance in Steel manufacturing Companies in Rwanda.EJBMR, European Journal of Business and Management Research vol.4 5

Cook, J. (2013). The Importance of a health & safety audit, retrieved from

http://www.the workplacedepot.co.uk/news/2013/10/08/importance-health-safety-audit/

Debjit Bhowmik (2014).Recent Trends in Hazards in the Pharmaceutical Industry and Safety Precaution. Himachal Pharmacy College

https://www.researchgate.net/publication/276268064

Decent work and Digitization in the Chemical and Pharmaceutical Industries Issues Paper for Global Dialog Forum on Challenges for Decent and Productive Work Arising from Digitization in the Chemical and Pharmaceutical Industries Geneva(2018).International Labor Organization First Edition.

David A.D and Stephen P.R (1999).Human Resource Management Concepts and Application. USA Regressive International Technologies

Dennis D Zaebst (2011). Case Study: Effect of Synthetic Oestrogens on Pharmaceutical Workers : A United States ,

www.iloencyclopaedia.org

Dorothy Wigmor (2009). Women and Health Protection, Pharmaceuticals Manufacturing: What do you know about the Occupational health and safety hazards for women working in the industry?

Durbin, J. and Watson, G.S (1950).Testing for Serial Correlation in Least Squares Regression: I. Biometrika, 37

Ench ,Everist Onyehulu Chukwu (PHD)(2022).Effect of Employees Involvement in Management Decision Making on Organizational Efficiency of Pharmaceutical Manufacturing Firms in Enugu State, European Journal of Marketing and Management Sciences Volume 5 Issue 02 ISSN:2263-6684

Esra Aldhaen (2022). Awareness of Occupational Health Hazards and Occupational Stress among Dental Care Professions: Evidence from GCC Region. National Library of Medicine (NLM): doi: 3389if pubh.2022922748

Eva and Oswald, R. (1981). Health and Safety at Work, London: Pan Books

Evelyne Wambui Maina, Pro.Gregory S.Namusonge and Dr Kabare Karanja (2018).Effect of Training on Employee's Commitment in the Tele Communication Industry. International Journal of Advanced Research in Management and Social Sciences

Federal Democratic Republic of Ethiopia, Ethiopian Electric Utility (2021).Access to Distributed Electricity and Lighting in Ethiopia (ADELE) Project– P171742

Gebre Mariam, Tahir and Gebre Amanueal (2016). Bringing Industrial and Health Policies Closer: Reviving Pharmaceutical Production in Ethiopia, Pages.66-69

Grace Katunge Jonathan and Rosemary Wahu Mbogo (2016).Maintaining Health and Safety at Workplace: Employee and Employer's Role in Ensuring a safe Working Environment.Journal of Education and Practice ISSN 2222-1735(Paper) ISSN 2222-288X (Online) Vol.7, No.29

Greenhaus, J.H, Gary N. Powell (2017). Making Work and Family Work: From Hard Choices to Smart choices, 1st Edition

www.GoogleScholar.com

George Politakis (2023).International and Comparative Law Quarterly 72(1)213-232

www.GoogleScholar.com

Godderis L, Luyten J. Occup (2020). Environ Med Vol 0

http://orcid.org/0000-0003-4764-8835Lode

Herbet K. Abrams (2001).A Short History of Occupational Health. Journal of Public Health Policy Vol.22, No.1, pp.34-80

Heron RJ and Pickering FC (2003). Health Effect of Exposure to Active Pharmaceutical Ingredients (API's). Occcup Med (Lond):53:357-365

Irene M Gathuru, Jeanine M Buchanich, Gary M Marsh and David G Dolan (2015).Health hazard in pharmaceutical industry. Pharmaceutical Regulatory Affairs Open Access

www.GoogleScholar.com

International Labor Organization and United Nations Global Compact (2021). Nine Business Practices for Improving Safety and Health through Supply Chains and Building a Culture of Prevention and Protection

Jean-Pierre and Ninon Dugas (2008).An analysis of employee recognition: perspectives on human resources practices. The International Journal of Human Resource Management, vol.19 No.4 716-730

www.GoogleScholar.com

Joseph Acquah ,Freda Atsunyo ,Deborah Johnson Addae March (2021). Importance of OHSMP: A Review on occupational Health and Safety Hazards as Operational Risk Can Affect Employee Commitment. International journal of social work and human services practice (8):11-16, 2021 Doi:10.13189/ijrh.2021.080102

http://www.hrpub.org

Judge, TA and Robbins, S.P (2013).Organizational Behavior.15th edn. New Jersey Pearson Education Inc.
www.GoogleScholar.com

John P Meyer, Natalie J Allen (1991).A three-component Conceptualization of Organizational Commitment. Human Resource Management Review Volume 1, Issue 1, Spring ,Pages 61-89

John P Meyer and Thomas E. Becker (2004).Employee Commitment and Motivation: A Conceptual and Integrative Model. Journal of Applied Psychology Vol.89, No.6, 991-1007

John Sterling Crumbley (2014).Management Commitment in Occupational Safety and Health As It Related To Federal Agency Programs. Eastern Kentucky University

Joseph A Allutto, Lawrence G Hrebiniak Ramon C Alonso (1973).OnOperationalizing the Concept of Commitment. Social Forces P, 51(4)448-454

www.GoogleScholar.com

Karen Beck, Carlene Wilson (2000). Development of Affective Organizational Commitment: A Cross-Sequential Examination of Change with Tenure. Journal of Vocational Behavior volume 56, issue 1 pages 114-136

Kaynak, R., A. T., Elci, M. & Toklu, T.I.(2016).Effects of Occupational Health and Safety Practices on Organizational Commitment, Work Alienation and Job Performance :Using the PLS-SEM Approach. International Journal of Business and Management

Kumahlor Godwin, Nsiah Felicity, Esposito Boachie, Amponsah Anita and Ebenezer Aidoo (2017). Employee Safety: The Role of Human Resource Management: A case Study .Qualiplast Company Limited Ghana

Kumari, M.K. & Kumari, V.L.P (2014).Influence of Employee Involvement and Organizational Culture on Productivity: A theoretical Concept.MIJBR-MITS, and International Journal of Business Research

Li Sun and Chanchai Bunchapattanasakda, Employee Engagement (2008) (A Literature Review).The International Journal of Human Resource Management, vol.19, no.4, 716-730

Likert, R. (1932).A technique for the Measurement of Attitudes.Archives of Psychology, 22 140, 55

Liu S, Yang L, Zhang C, Online mental health services in China during the COVID-19 outbreak Lancet Psychiatry 2020;7:e17-18

www.ncbi.nlm.nih.gov/pubmed/32085841 PubMed Google Scholar.

Lode Godderis, Jeroen Luyten: Challenges and opportunities for occupational health and safety

After the COVID-19 lockdowns 2020, Occup Environ Med 2020 Vol

www.ncbi.nlm.nih.gov/pubmed/32085841 PubMed Google Scholar.

LPS Hasithani and MAM Hussain Ali (2021). Occupational Health and Safety and Employee Engagement: A case of Solid Waste Employees in Urban Council in Ampara. Proceedings of international Conference on Business Management

Michael Armstrong (2006). A Handbook of Human Resource Management Practice 10th Edition, British Library, ISBN-10 0749446315

Michael, J.H., Evans, D.D., Jansen, K.J. & Haight, J.M. (2005). Management Commitment to Safety as Organizational Support: Relationships with non-safety outcomes in wood manufacturing employees. Journal of Safety Research

Miller, J. (2003). Critical Incident Stress Debriefing and Social Work: Expanding the frame. Journal of Social Service Research, 30(2), 7-25.

Mowday, R. T., Porter, L. M. and Steers, R. M. (1982). Employee-Organizational Linkage, Academic Press, New York

www.GoogleScholar.com

Mouton J & Marais H.C. (1994).Basic concepts in the methodology of the Social Sciences.Pretoria Human Sciences Research Council.
www.GoogleScholar.com

Nithya(Dr.) (2021). Study on Impact on Employee Commitment towards Organization Growth in Textile Industry. INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT), Vol 9
www.ijcrt.org

O'Reilly, A.C. (1989). People and organizational culture: A profile comparison approach to assessing person-organization fit. The Academy of Management Journal, P, 20

Palmer S, (1989). Occupational –Stress: The Safety and Health Practitioner, August.PP16-18
www.GoogleScholar.com

Patricia Muah,Issac Nyarko Adu,Michael Kyei-Frimpong and Augustine Osei Boakye (2021). Explaining how management Safety programs Influence Job Safety and Employee Commitment Evidence from Ghanaian Mining Industry. SEISENSE Business Review Vol 1 No 3 2021: DOI
https://doi.org/10.33215/sbr.v1i3.709

Pirani M and Reynolds J. (1976). Gearing Up for Safety Personnel
www.GoogleScholar.com

Peace Irefin and Mohammed Ali (2014).Effect of Employee Commitment on Organizational Performance in Coca Cola Nigeria.IOSR Journal of Humanities and Social Science (IOSR-JHSS)Volume 19 ,issue 3, ver 1PP33-41 e-ISSN:2279-0837,P-ISSN:2279-0845.

Porter, L.W., Steers, R.M., Mowday, R.T. & Boulian, P.V. (1974).Organizational Commitment, Job satisfaction, and Turnover among Psychiatric Technicians.Journal of Applied Psychology, 59, 603-609.
www.GoogleScholar.com

Ramazan Kaynak, A Tuygun Toklu, Meral Elci, I and Tamer Toklu (2016). Effect of Occupational Health and Safety practices on Organizational Commitment, Work Alienation and Job Performance: using the PLS-SEM Approach. International Journal of Business and Management 11(5), 146-166

Robert J Vance (2006).Employee Engagement and commitment.SHRM Foundation's Effective Practice Guidelines

Samuel O. Idowu (2014).Dictionary of Corporate Social Responsibility. London Guildhall Faculty of Business Law London Metropolitan University

Shivani Khanna, Geeta Kumari, Hemant Bhanawat, K.M. Pandey (2019). Occupational Health and Safety of workers in Pharmaceutical Industries. International journal of recent technology and engineering (LJRTE) ISSN: 2277-3878 volume-8 issue-4

Shmmon Ahmad, Abdul Hafeez, Anmar Al-Taie, Sameera Ali Siggui and Isha Talwar Anioo (2022).Industrial Hazards and Safety Management in Pharmaceutical Industry. Authorea Preprints

Sylvie Gravel, Monique Lortie, Henrietta Bilodeau and Jessica Dube (2013).Interaction between Human Resources Management OHS Preparing Future Managers. Institute de recherché Robert-Sauve en santé et en securite du travail (irsst) ISSN: 0820-8395

Tabachnik, B. and Fidel, L. (2011). Using Multivariate Statics, Allen and Bacon, Needham Heights

Thomas J. Bergmann, Scott W. Lester, Xenneth P. De Meuse and Juyce L. Grhn (2000). Integrating,the Three Domains of Employee Commitment: An Exploratory Study. The Journal of Applied Business Research Volume 16, November 4

Yamane (1967).Statics: An Introductory Analysis. 2nd Ed, New York: Harper and Row

Sites:

Qualtrics software sample calculator

www.qualtrics.com

About Ethiopian Pharmaceutical Manufacturing Company S.C

www.pharmsc.com

Definition and citations on Occupational Safety and Health

https://www.who.int/health-topics/occupational-health

https://www.unglobalcompact.org/take-action/safety-andhealth

Questionnaire

Addis Ababa University School of Commerce

Survey question will be filled by operating employees

Date: May 8 2023

Dear respondents,

I am conducting this thesis research as part of my Masters of Arts in Human Resources Management studies. "Effects of Occupational Safety and Health Management Practice on Employee Organizational Commitment," is the title of my research.

Please take a few moments of your time and concern to complete the attached questionnaire, which will benefit both employees and the Ethiopian Pharmaceutical Manufacturing Company (EPHARM) a whole. The information you provide in this questionnaire is strictly confidential and anonymous, and the data gathered will be used solely for the purposes of the research study. This study's findings may be used as an input to improve occupational safety and health management practices (OSHMS) and promotes a positive work environment in the workplace as needed.

This questionnaire is divided into nine sections:

- Section A. Employee involvement
- Section B. Training and awareness on OHS
- Section C. Leadership commitment
- Section D. Challenges in implementing OSHMS
- Section E. Causes of occupational hazards
- Section F. Affective commitment
- Section G. Continuance commitment
- Section H. Normative commitment
- Section I. Open ended questions

Please read the instructions for each section before responding. Please also complete each section and answer all of the questions; you are not required to identify yourself and will thus remain anonymous. And please return the completed questionnaire to the researcher or designated person. I'd like to thank you in advance for your kind participation and prompt return of the completed questionnaire. If you require any additional information, please do not hesitate to contact me at Seadalove.04@gmail.com. I'd like to thank you again for agreeing to participate in this survey.

General Directions

Put the symbol () that you think is the right choice

Part 1: Respondent's Personal information

1. Sex: ☐ Male ☐ Female

2. Age:18-25 ☐ 26-34 ☐ 34-45 ☐ 46-50 ☐ > 50 ☐

3. Education: Degree ☐ Diploma ☐ Certificate ☐ High School ☐ Elementary ☐

4. Marital Status: Married ☐ Single ☐ Others ☐

5. Work experience: (EPHARM) 0-5 year ☐ > 5-10 years ☐ >10 year ☐

Part 2: Put 'X" mark in the given boxes to show your ratings as given below:

5=strongly agree, 4=Agree, 3=Neutral, 2=Disagree, 1=strongly disagree

A	Employee Involvement	5	4	3	2	1
1	Employees are involved in audits of the health and safety system/practice					
2	Employees are involved in workplace health and safety risk assessment					
3	Employees are involved in the review of a policy statement					
4	Employees are involved in the design of work processes.					
5	Employees are involved in hazard detection, prevention and control activities.					

B	Training and awareness on OSH	5	4	3	2	1
1	Employees are aware of the use of personal protective equipment					
2	Employees know how to contribute to the work place's health and safety practices.					
3	Employees are familiar with equipment they are working with.					
4	The procedures for reporting injuries are understood by employees.					
5	When there is an emergency, employees are aware of what to do.					

C	Leadership commitment	5	4	3	2	1
1	Managers pay attention to safety.					
2	Managers/supervisors do not like employees working in unsafe ways.					
3	First aid supplies are easy to find.					
4	Managers and supervisors talk to employees about safety issues					
5	Health and safety goals and expectations are communicated to employees by the management.					
6	Personal protective equipment is provided to employees to do their job.					
7	If safety is compromised, work stops immediately.					
8	The management has taken steps to reduce stress in the work place within 12 months.					
9	There is a written safety and health policy in place					
10	The company audits its safety and health practices on a regular basis.					
11	All parties are being worked with by the occupational safety and health committee					
12	The management keeps records of accidents and hazards.					
13	Medical examination is required for employees engaged in hazardous work.					
14	The management has enough resources to implement the OS&H program.					

D	Challenges in implementing OSHMS	5	4	3	2	1
1	There was a lack of commitment from management.					
2	Lack of resources to carry out the program.					
3	Lack of employee awareness about safety and health practices					
4	Scarcity of professional expertise					
5	Absence of continuous information exchange					

E	Causes of Occupational Hazards	Yes	No
1	Design and layout of work process/flow		
2	Poor ventilation, lighting and pressure		
3	Non-compliance of employees with basic applications of personal protective equipment.		
4	Stress		
5	Inefficient equipment, machineries, devices and tools		
6	Poor Housekeeping/sanitary practices		
7	Excessive noise		
8	Inconvenience/uncomfortable/ergonomic work factor		
9	Lack of personal protective equipment		
10	Unsafe application of chemicals		
11	Long working hours		
12	Repetitive motion/body movement work pattern		
13	Working shift		
14	Transmissible biological contagious infection		
15	Unsafe/unprotected equipment		

F	Affective Commitment Scale	5	4	3	2	1
1	I would love to stay with this organization for the rest of my career.					
2	I like talking about my organization with people outside it.					
3	I feel like the organization's problems are my own.					
4	I think I could be as attached to another organization as I am to this one.					
5	I feel part of the family at my organization.					
6	I feel emotionally attached to this organization.					
7	This organization has a lot of meaning for me.					
8	I do not feel like I belong to my organization.					

G	Continuance Commitment Scale	5	4	3	2	1
1	I am afraid of what might happen if I quit my job.					
2	It would be very difficult for me to leave my job right now.					
3	If I left my organization now, there would be too much disruption in my life.					
4	I wouldn't have to pay a lot to leave my organization now.					
5	It is a matter of necessity for me to stay with my organization.					
6	I don't think I have enough options to leave this organization.					
7	The scarcity of available alternatives is one of the few serious consequences of leaving this organization.					
8	One of the primary reasons I continue to work for this organization is that leaving would necessitate significant personal sacrifice-another business man not provide the same overall benefits that I do.					

H	Normative Commitment Scale	5	4	3	2	1
1	I think that people these days move from company to company too often					
2	I think a person must always be loyal to his or her organization.					
3	I think jumping from organization to organization is unethical.					
4	One of the main reasons I still work for this organization is that I feel a sense of moral obligation to stay because I believe that loyalty is important.					
5	I wouldn't feel right leaving my organization if I got another offer for a better job.					
6	I was taught to be loyal to my organization.					
7	I do not think it's smart to want to be a company man or a company woman anymore.					

አዲስአበባዩኒቨርስቲንግድስራትምህርትቤት

ይህየዳሰሳጥናትጥያቄየተዘጋጀውእናየሚሞላውበኢፋርምሰራተኞችብቻነው

ቀን፡ሚያዝያ 26 2023

እኔበሰውሃብትአስተዳደር(HRM) ትምህርትውስጥየማስተርስኦፍአርትስ (Masters of Arts Program) አካልበመሆንይህንንየመመረቂያጥናትእየሰራሁነው።

"በሰራተኛቁርጠኝነትላይየሙያደህንነትእናየጤናአስተዳደርዘዴዎችተፅዕኖ/ Effect of Occupational safety and safety Management Practices on Employee Commitment" የኔየመመረቂያጥናትርዕስነው።

እባክዎየተያያዘውንመጠይቅለመሙላትበቂጊዜዎንእናስዓትዎንይውሰዱ፣

ይህየደሰሳጥናትለኢትዮጵያፋርማሲዩቲካልማምረቻድርጅት (ኢፋርም) እናለሰራተኞቹአጠቃላይጥቅምይሰጣል።

በዚህመጠይቅውስጥየሚቀረቡትመረጃዎችሚስጥራዊእናየማይታወቅነው፣

እናየተሰበሰበውመረጃለምርምርጥናትዓላማዎችብቻጥቅምላይይውላል።

የዚህጥናትግኝቶችየስራደህንነትንእናየጤናአስተዳደርልምዶችን (OSHMS) ለማሻሻልእናእንደአስፈላጊነቱበስራቦታላይአዎንታዊየስራአካባቢንለማሻሻልእንደግብአትሊያገለግሉይችላሉ።

⇨ይህመጠይቅበዘጠኝክፍሎችየተከፈለነው።

- ክፍልሀ. የሰራተኛተሳትፎ(Employee Involvement)
- ክፍልለ. ስለስራደህንነትእናጥበቃስልጠናእናግንዛቤ (Training and Awareness on OHS)
- ክፍልሐ. የአመራርቁርጠኝነት (Leadership Commitment)
- ክፍልመ. ስራደህንነትእናጥበቃአስተዳደርዘዴዎችላይያሉተግዳሮቶች(Challenges on OSHMP)
- ክፍልሠ. የስራ/የሙያአደጋመንስኤዎች (Causes of Accidents or Hazards)
- ክፍልረ. ስነ-ልቦናዊ(ስሜታዊ) ቁርጠኝነት(Affective Commitment)
- ክፍልሰ. ቀጣይነትያለውቁርጠኝነት (Continuance Commitment)
- ክፍልሸ. መደበኛቁርጠኝነት (Normative Commitment)

ክፍል I.የተጠናቀቁጥያቄዎችንይከፈቱ

እባክዎምላሽከመስጠትዎበፊትየእያንዳንዱንክፍልመመሪያዎችንያንብቡ።

እንዲሁምለእያንዳንዱክፍልጥያቄዎችንይሙሉናሁሉንምጥያቄዎችይመልሱ;

ማንነትዎንእንዲገልጹአይገደዱምእናስለዚህማንነታቸውሳይታወቅይቆያሉ።

በተጨማሪምእባክዎየተሞላውንመጠይቅለተመራማሪውወይምለተመደበውሰውይመልሱ።

ላደረጋችሁትመልካምተሳትፎእናየተጠናቀቀውንመጠይቅበፍጥነትስለመለሱአስቀድሜላመሰግናችሁእወዳለሁ።

ተጨማሪመረጃከፈለጉ፣እባክዎንበ Seadalove.04@gmail.com ላይእኔንማግኘትይችላሉ።

በዚህዳሰሳጥናትላይለመሳተፍስለተስማማችሁበድጋሚላመሰግንእወዳለሁ።

አጠቃላይመመሪያዎች

ትክክለኛውምርጫነውብለውየሚያስቡትንምልክት (✓) ያስቀምጡ።

ክፍል 1፡ምላሽሰጪዎችየግልመረጃ

1. ፆታ: ወንድ ☐ ሴት ☐

2. ዕድሜ፡ 18-25 ☐ 34-45 ☐ > 50 ☐ ☐ ☐

3. ትምህርትዝግጅት፡ድግሪ☐ዲፕሎማ☐ሰርተፍኬት☐ሁለተኛደ. ☐አንደኛደ. ☐

4. የጋብቻሁኔታ: ያገባያላገ☐ ☐ ☐

5. የስራልምድ (በኢፋርምውስጥ):0-5 አመት> 5-☐ት>10 አመት ☐ ☐

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ክፍል 2፡ከዚህበታችእንደተሰጡትደረጃዎችዎንለማሳየትበተሰጡትሳጥኖችውስጥየ‹✓› ምልክትያስቀምጡ።

5=በጽኑእስማማለሁ፣4=እስማማለሁ፣3=ገለልተኛ፣2=አልስማማም፣1= በጣምአልስማማም

ሀ.	የሰራተኛተሳትፎ / Employee Involvement	5	4	3	2	1
1	ሰራተኞችበጤናእናደህንነትስርዓትቅልጥፍናውጤታማነትእናአስተማማኝነትኡዲትውስጥይሳተፋሉ ።					
2	ሰራተኞችበስራቦታጤናእናደህንነትስጋትግምገማእናፍተሻውስጥይሳተፋሉ።					
3	ሰራተኞችየፖሊሲመግለጫንበማዳበርወይምበመገምገምላይይሳተፋሉ።					

4	ሰራተኛውበስራሂደቶችዲዛይንላይአስተዋፅኦያደርጋል፡፡					
5	ሰራተኞችአደጋንበመለየትበመከላከልእናበመቆጣጠርእንቅስቃሴዎችውስጥይሳተፋሉ፡፡					

ለ.	በስራደህንነት/ጥበቃጤናላይስልጠናእናግንዛቤ/ OHS Training	5	4	3	2	1
1	ሰራተኞችየግልመከላከያመሳሪያዎችንአጠቃቀምበደንብያውቃሉእናለማመልከትያከብራሉ					
2	ሰራተኞችየስራቦታንደህንነትእናየጤናልምዶችንይገነዘባሉእናእንዴትማበርከትእንደሚችሉያውቃሉ ።					
3	ሰራተኞቹአብረዋቸውበሚሰሩመሳሪያዎች/ማሽነሪዎችጠንቅቀውያውቃሉ።					
4	ሰራተኞችጉዳቶችንሊከሰቱየሚችሉአደጋዎችንሪፖርትየማድረግሂደቶችንይገነዘባሉ::					
5	ሰራተኞችበአደጋጊዜምንማድረግእንዳለባቸውያውቃሉ::					

ሐ.	የአመራርቁርጠኝነት/Leadership Commitment	5	4	3	2	1
1	አስተዳዳሪዎች/ተቆጣጣሪዎችለሥራቦታደህንነትትኩረትይሰጣሉ፡፡					
2	አስተዳዳሪዎች/ተቆጣጣሪዎችደህንነቱባልተጠበቀመንገድየሚሰራሰራተኛጋርአይታገሡም።					
3	የመጀመሪያእርዳታአቅርቦቶችይገኛሉእናበቀላሉተደራሽናቸው፡፡					
4	አስተዳዳሪዎች/ተቆጣጣሪዎችከሰራተኞችጋርበመደበኛነትስለደህንነትጉዳዮችይወያያሉ።					
5	አስተዳደሩሰራተኞቹንየጤናእናየደህንነትግቦችንእናየሚጠበቁትንያሳውቃል።					
6	ሰራተኞችስራቸውንእንዲሰሩተገቢውንየግልመከላከያመሳሪያይሰጣቸዋል።					
7	ደህንነቱአስጊከሆነስራውወዲያውኑይቆማል፡፡					
8	አስተዳደሩባለፉት 12 ወራትውስጥበሥራቦታያለውንጫናለመቀነስማንኛውንምተነሳሽነትወስዷል፡፡					
9	ኢፋርምደህንነቱየተጠበቀየስራአካባቢንለመጠበቅየጽሁፍየደህንነትእናየጤናፖሊሲአለው።					
10	ኩባንያውየደህንነትእናየጤናአሠራሮችንለመከታተልመደበኛኦዲትያደርጋል።					
11	የኢፋርምየስራደህንነትእናጤናኮሚቴከሚመለከታቸውአካላትጋርበንቃትእየሰራነው።					

12	አስተዳደሩየሥራአደጋዎችንእናከሙያጋርየተያያዙበሽታዎችንይመዘግባልእናመዝገቦችንይይዛል፡፡					
13	በአደገኛሥራላይየተሰማሩሰራተኞችእንደሁኔታውየሕክምናምርመራይደረግላቸዋል፡፡					
14	አስተዳደሩለስራደህንነት/ጥበቃጤናክወናእናፕሮግራምትግበራበቂግብዓትይመድባል፡፡					

መ.	በስራደህንነት/ጥበቃጤናአመራርዘዴ /OSHM ላይየሚታዩተግዳሮቶች	5	4	3	2	1
1	ከአስተዳደሩየሚታይቁርጠኝነትእጥረት፡፡					
2	ፕሮግራሙንለማከናወንበቂያልሆነህብቶች/ግብዓቶች፡፡					
3	ስለደህንነትእናየጤናጥበቃአሠራሮችላይየሰራተኞችግንዛቤእጥረት፡፡					
4	የባለሙያእጥረት፡፡					
5	ቀጣይነትያለውየመረጃልውውጥአለመኖር፡፡					

ሠ.	የስራላይአደጋዎችናመንስኤዎች Causes of Occupational Hazards	አዎ	አይ
1	የሥራሂደት / ፍሰትንድፍእናአቀማመጥ፡፡		
2	ደካማየአየርዝውውርመብራትእናግፊት፡፡		
3	የግልመከላከያመሳሪያዎችንመሰረታዊአተገባበርየሰራተኞችንአለማክበር፡፡		
4	የስራውጥረት(ጫና)፡፡		
5	ውጤታማያልሆኑመሳሪያዎችማሽኖችእናሌሎችመሳሪያዎች፡፡		
6	ደካማየቤትአያያዝ/ንፅህናልምዶች፡፡		
7	ከመጠንበላይየድምፅሁካታ(ብክለት)፡፡		
8	የሰራተኞችየስራሁኔታ / ergonomic (ስነ-ምኞት)፡፡		
9	የግልመከላከያመሳሪያዎችእጥረት፡፡		
10	ደህንነቱያልተጠበቀየኬሚካሎችአጠቃቀም፡፡		
11	ረጅምየስራሰዓታት፡፡		

12	ተደጋጋሚእንቅስቃሴ/የሰውነትእንቅስቃሴየስራንድፍ፡፡		
13	የስራፈረቃ፡፡		
14	ተላላፊባዮሎጂያዊኢንፌክሽን፡፡		
15	ደህንነታቸውያልተጠበቀ / ያልተጠበቁመሳሪያዎች፡፡		

የሰራተኛቁርጠኛነት (Employee Commitment)

ረ. ስነ-ልቦናዊ /ስሜታዊቁርጠኝነት/Affective Commitment

ረ.	ስነ-ልቦናዊ /ስሜታዊቁርጠኝነትልኬትAffective Commitment	5	4	3	2	1
1	ቀሪዘመኔንከዚህድርጅትጋርለመስራትበጣምደስተኛነኝ።					
2	ስለድርጅቱከመስሪያቤቱውጪካሉሰዎችጋርመወያየትያስደስተኛል።					
3	በእውነቱየዚህድርጅትችግሮችየራሴእንደሆኑይሰማኛል።					
4	እኔእንደማስበውልከዚህድርጅትጋርትስስርእንዳለኝከሌላድርጅትምጋርትስስርመፍጠርእችላለሁ ።					
5	በድርጅቱውስጥየቤተሰብአባል/አካልእንደሆንኩይሰማኛል።					
6	ለድርጅቱጥሩ አይነትስሜትይሰማኛል።					
7	ይህድርጅትለእኔትልቅትርጉምአለው።					
8	በድርጅቱውስጥጠንካራየመሆንስሜትይሰማኛል።					

ሰ. ቀጣይነትያለውቁርጠኝነትልኬት/Continuance Commitment Scale

ሰ.	ቀጣይነትያለውቁርጠኝነትልኬት Continuance Commitment Scale	5	4	3	2	1
1	ሌላስራሳልይዝሥራዬንባቆምስጋትሊፈጠርብኝይችላልወይምፍርሃትአለብኝ።					

2	ስራመልቀቅብፈልግምአሁንድርጅቱንመልቀቅበጣምከባድይሆንብኛል።					
3	አሁንድርጅቱንለቅቄመውጣትእንደምፈልግከወሰንኩበሕይወቴውስጥብዙነገርይስተጓጎላል።					
4	አሁንከድርጅቱመውጣትለእኔበጣምውድአይሆንም።					
5	በአሁኑጊዜ፣ከድርጅቱጋርመቆየቱእንደፍላጎት/መሰረትሁሉየግድአስፈላጊጉዳይነው።					
6	ይህንንድርጅትለመልቀቅለማሰብበጣምጥቂትአማራጮችእንዳሉኝይሰማኛል።					
7	ይህንንድርጅትለቅቆመውጣትከሚያስከትላቸውጥቂትአስከፊመዘዞችአንዱአማራጭ/አማራጮችስለሌሉነው።					
8	ለዚህድርጅትእንድሰራካደረጉኝዋናዋናምክንያቶችአንዱመልቀቅትልቅየግልመስዋዕትነትይጠይቃል - ሌላድርጅትደግሞካለኝአጠቃላይጥቅምጋርላያቀርብይችላል።					

ሸ. መደበኛቁርጠኝነትልኬት / Normative Commitment

ሸ.	መደበኛቁርጠኝነትልኬት Normative Commitment	5	4	3	2	1
1	እንደማስበውከሆነባሁንጊዜሰዎችከአንድድርጅትወደሌላድርጅትበተደጋጋሚፍልሰትእንደሚያደርጉነው።					
2	አንድሰውሁልጊዜለድርጅቱታማኝመሆንአለበትብዬአምናለው።					
3	ከድርጅትወደድርጅትመቀየር/መልቀቅለእኔየሥነምግባርጉድለትእንዳለው ይሰማኛል።					
4	ለዚህድርጅትመስራቴንከቀጠልኩባቸውዋናዋናምክንያቶችአንዱታማኝነትአስፈላጊነው።ብዬስለማምንእናበዚህምክንያትመቆየቱየሞራልግዴታስላለኝነው።					
5	ለተሻለሥራሌላቦታካገኘሁድርጅቴንመልቀቅትክክልእንደሆነአይሰማኝም።					
6	እምነትእንዳገኝካስተማረኝአንዱለድርጅቴታማኝመሆንጥቅምእንዳለውነው።					
7	ሰዎችበአንድድርጅትውስጥበአብዛኛዎቹየስራዘመናቸውበቆዩበትዘመንነገሮችየተሻሉነበሩ 'የኩባንያወንድ' ወይም 'የኩባንያሴት' ለመሆንመፈለግከአሁንበኋላአስተዋይነትያለውአይመስለኝም።					

Risk Assessment Template I

No	Hazard	Risk rating	Implementation		
			Preventive measure to be adopted	Assigned to	Time plan
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Source: OSH department 2023

Summary of Accidents and Injuries I I

Summary of Accidents at EPHARMmid-2022 to May 2023				
Date	Category of workers	Place of accident	Type of injuries	No of accidents
2022/2014	Production	workplace	Soft issue injury	2
	Operator	Olintment department	Fracture of the knee	1
	Health professional	In the service	Ankle sprain	2
	Operator		Swelling	1
	Production worker	In the service	Lower back pain	1
			Total number of accidents 7	
Till May 2023	Production	Olintment department	Soft issue injury	9
	Health professional	workplace		
	Cleaner	In the service	Ankle sprain	1
	Operator	workplace	Fracture of the knee	3
	Production worker	workplace	Lower back pain	1
		Total number of accidents		14

Source: EPHARM 2023