THE EFFECT OF SAFETY MANAGEMENT ON JOB PERFORMANCE: THE CASE OF EAST AFRICA BOTTLING S.C ADDIS ABABA PLANT

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A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ART IN PROJECT MANAGEMENT

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DECLARATION

I hereby declare that this thesis entitled "The Effect of Safety Management on Job Performance: the Case of East Africa Bottling S.C Addis Ababa Plant", has been carried out by me under the guidance and supervision of Melaku Girma (PhD).

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institutions.

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CERTIFICATE

This is to certify that the thesis entitles " The Effect of Safety Management on Job Performance: the Case of East Africa Bottling S.C Addis Ababa Plant,", submitted to St. Mary's University for the award of the Degree of Master of art of Project Management and research work carried out by Gurmesa Getachew Tadesse, under our guidance and supervision. Therefore, I hereby declare that no part of this thesis has been submitted to any other university or institutions for the award of any degree or diploma.

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SCHOOL OF POSTGRADUATE STUDIES
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APPROVAL SHEET

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ABBREVIATIONS/ ACRONYMS

ANOVA	Analysis of Variance
FAST	First Aid Support and Training
JP	Job Performance
OHP	Occupational Hazard Prevention
OSS	Organizational Safety Support
SAHR	Safety and Health Rules
SPRM	Safety Procedures and Risk Management
SPSS	Statistical Program for Social Science
Sta. De	Standard Deviation
VIF	Variance Inflation Factor

ABSTACT

The aim of this study was to examine the effect of safety management on job performance of employees in East Africa bottling S.C Addis Ababa plant. Mixed research approach along with explanatory research design was applied to examine the relationship between occupational safety and health dimensions variables and job performance. Employees of the selected company were considered as target population, of which a total of 276 usable and valid responses were obtained through convenience non-probability sampling technique. The data set obtained from East Africa Bottling S.C. Addis Ababa plants through Semi-structured interviews were employed as a data collection tool, along with questionnaire with a five-point Likert scale rating system. Using SPSS version 26.0, the acquired data were condensed and subjected to descriptive and inferential statistical analysis. Both descriptive and inferential statistics were adopted to investigate the relationship of the stated variables. Results of the findings revealed that the study at East Africa Bottling S.C. found that Safety and Health Rules are highly valued by employees and strongly correlate with job performance. Organizational Safety Support has a moderate correlation with job performance. First Aid Support and Training has a lower mean score, while Safety Procedures and Risk Management (SPRM) shows a weaker correlation. The study *suggests strategies to enhance job performance, such as improving Safety and Health Rules, refining procedures, prioritizing first aid training, strengthening organizational safety support, and improving occupational hazard prevention.*

.***Keywords**: safety & health rules, first aid support & training, organizational safety support, Procedures and Risk Management and job performance*

CHAPTER ONE
INTRODUCTION

In order to provide readers with a general understanding of the topic of the paper, this chapter starts with background of the research. This is significance be followed by the thesis background, problem statement, research questions, objectives, importance, scope, and paper organization.

1.1. Back ground of Study

As workers who are unwell or injured at work are unable to perform to the best of their abilities in any company, workplace safety is still a major concern for many businesses. Businesses have always been concerned about the health and safety of their employees because of this. It is thought that a worker's productivity depends on a number of variables, including their health and safety. Here, "health" refers to complete stability of the body and mind. Organizations in Nigeria strive to meet health and safety standards as required by the Nigerian Factory Act 1958 and 1987 as amended. Such standards stipulated by the Act help to build an efficient labor force by reducing accidents, absenteeism and turnover. Safety, Health and Environment legislation as well as specific guidelines, require employers to provide a safe workplace and to minimize exposure to hazardous substances in order to protect the employees' health in the industry Kaynak, (2016). The health of the workers is that state which enables the worker to perform his day-to-day activity without undue fatigue and illness. The concept of industrial health as stated by Takala (2002) is concerned with all factors which influence the health of people at work. The damaging effect of occupational hazard in bottling industries calls for an assessment and raising awareness amongst organizations as pertains to policies and practice.

The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations, the prevention among workers of departures from health caused by their working conditions, the protection of workers in their employment from risk resulting from factors dangerous to health, the placing and maintenance of the workers in an occupational environment adapted to his physiological and psychological condition. The importance of health education in any industry cannot be over-emphasized since it is a major factor in hazard control and prevention of accidents (Pamela, et al., 2011).

Businesses that employ people who are very vulnerable to injury frequently have established, well-structured industrial safety procedures in place. They are conscious of the repercussions of disregarding workplace safety, thus they know that having a solid strategy may greatly enhance

employees' health, safety, and well-being (Martic, 2020). Work quality, quantity, and effectiveness as well as how your workers conduct at work all affect how well they perform (Ashley & Thompson, 2019). A workplace devoid of mishaps and injuries attracts employees. Every worker has the right to do their job in a secure setting. In such a setting, workers are happier and more efficient.

It is important to remember that everyone's right to life is inalienable and essential. However, 2.2 million men and women lose this entitlement annually as a result of work-related illnesses and accidents. Workers experience 160 million occupational illnesses and 270 million occupational accidents annually, according to conservative estimates made by Nordlöf, (2015). This might only be the beginning, as most poor nations lack the data necessary to estimate nonfatal sickness and injury. Over 10 million disability-adjusted living years (DALYs) are lost due to occupational injuries alone. DALYs are defined as years of healthy living lost due to disability or early death. Occupational injuries also account for 8% of accidental injuries globally (Pamela et al., 2011).

Since assigned tasks can only be completed safely in a safe and conducive work environment, whether in construction, manufacturing, or servicing, it is assumed that an organization's safety policies have a direct impact on employee performance and productivity. Consequently, any phenomenon that affects human production capacity will inevitably affect organizational performance, and promoting the health of its employees offers a company the chance to improve performance (Gal liker, 2000).

Because work-related injuries and fatalities are more common in East Africa, bottling S.C Addis Ababa plant with occupational safety and health laws should be given careful thought. According to several studies, businesses who have reduced the shockingly high rates of work-related fatalities and injuries in developing countries have improved their individual firms' performance (Boyle, 2015; Ford and Tetrick, 2013). Certain tasks are extremely dangerous, particularly those performed by younger employees. According to common law, employers must make sure that their workers are safe and that those who perform dangerous work are properly protected. In that scenario, improving workplace safety must be a priority in order to boost productivity and performance quality (Eze, 2006).

Consequently, management places greater emphasis on establishing work conditions that promote employee safety. Barriers include things like guards, uniforms, and protected areas. Minimizing anxiety and increasing emotions of security are two unforeseen benefits of

minimizing the risk of accidents at work. People are less likely to be involved in accidents because their problems are no longer a distraction. Businesses often use public relations activities, such as competitions and a variety of staff communication channels, to promote safety (Cole, 1993). Contestants usually receive cash rewards if their group has a low accident rate. The notion that it pays to be cautious is a fundamental component of these competitions, even if their themes and methods might differ greatly. In Nigeria's industrial environment, the impact of a long-term employee's safety management on organizational performance and loss control cannot be overstated. Therefore, the purpose of this research was to investigate how safety management affects employees' job performance at the S.C. Addis Ababa bottling factory in East Africa.

1.2. Statement of the Problem

Workplace health, safety, and welfare are problems that are related to industrial safety practices. The term "ISP" refers to the policies, rules, and initiatives designed to enhance the working conditions for employees as well as their coworkers, families, clients, and other stakeholders. Creating a solid health and safety culture at work is the single most critical element in preventing accidents. As the ILO's latest study suggests, the issues related to health and safety may evolve in the future, but the imperative to minimize expenses, maintain employee well-being, and lower corporate risks endures (Sikra, 2019).

Workplaces designed according to good working health, safety, and ergonomics principles are also the most sustainable and productive, as demonstrated by the most successful economies. Furthermore, in poor working conditions with workers who are exposed to health and safety risks, a healthy economy, high-quality products or services, and long-term productivity are difficult to achieve, hazards, according to extensive experience from countries Sundberg, 2018).

An estimated 271 million individuals worldwide suffer from work-related injuries each year, and 2 million of them may away as a result, according to a 2017 research by the International Labor Organization. With the greatest labor force, the construction sector is responsible for 11% of all occupational injuries and 20% of fatal workplace accidents (Frankiln, 2013). It is believed that at least 60,000 people die on construction sites worldwide each year, which means that a deadly accident happens in the industry every 10 minutes. According to Masha (2015), the majority of these mishaps are caused by risky actions and circumstances. Because they have an impact on worker longevity, project timeliness, and project cost, and project quality, work-related health and safety issues in the construction industry are therefore serious concerns that require careful

study.

A study from the Ethiopian Ministry of Labor and Social Affairs (MOLSA, 2020) states that in the fiscal year 20018–19, a total of 4,535 work-related accidents were recorded from 371 enterprises, of which 100 (2.21%) were fatal. 11,466 workdays of lost productivity and medical expenses of ETB 3.8 mil were incurred by injured employees as a result of these safety and health-related issues. Earlier research put up a number of theories as to why businesses find it difficult to implement effective, comprehensive occupational safety and health procedures. Lack of dedication, ignorance, insufficient funds, an absence of established procedures, and prioritizing profits and productivity over the health and safety of employees are a few of these (Duijm, 2008; Karltun, 2014; Nordlöf, 2015).

Low productivity and absenteeism, which has major consequences, are caused by ill employees. In the last five years, several employees of the East Africa bottling S.C. Addis Ababa factory had workplace injuries that left them permanently disabled, albeit in the absence of up-to-date statistics Abebe (2017). Since it might not be appropriate to put a monetary figure on human life, the entire cost of this cannot be calculated. Millions of Birr have been lost as a result of medical bills, missed income, administrative fees, insurance premiums, burial rights, and compensation. This does not include costs incurred by the business due to equipment and machine damage. Although the workman's compensation Act in East Africa mandates that employers take these issues seriously, Ethiopia's lack of full institutionalization of safety practices has given employers a tendency to handle such critical issues with levity, including the neglect of safety education needs Tekeba (2016).

Absence of safety protocols leads to lost man-hours, output, reputation, absenteeism, and a high percentage of employee turnovers from accidents, sickness, and low morale (Janalta, 2021). Therefore, when safety protocols are disregarded, there is an increase in man-hours, output, absenteeism, reputation, and staff turnover as a result of illness, bad morale, and accidents. Meaza (2016).This setting prompted the research, which examined the worker performance possibly affected in industrial safety management at the bottling firm in East Africa, S.C. Addis Ababa Plant.

1.3. Objectives of the Study

1.3.1. Genera Objective of Study

The main objective of this the study was to examine the effect of safety management on job performance of employees in East Africa bottling S.C Addis Ababa plant.

1.3.2. Specific objectives

The specific research objectives were:

1) To determine how health and safety rules affect workers' job performance of the East Africa bottling S.C. Addis Ababa.
2) To examine how safety procedures and risk management affect workers' job performance of the East Africa bottling S.C. Addis Ababa.
3) To evaluate the effect of first aid support training on the work performance of the East Africa bottling S.C. Addis Ababa.
4) To examine the effect of organizational safety support on workers' job performance of the East Africa bottling S.C. Addis Ababa.
5) To determine how occupational hazard prevention affects workers' job performance in the of the East Africa bottling S.C. Addis Ababa.

1.4. Basic Research Questions

1) How do safety and health rules affect the performance of employees at the East Africa bottling S.C. Addis Ababa?
2) How do safety procedures and risk management practices affect the performance of employees at the East Africa bottling S.C. Addis Ababa?
3) How do first aid support training affect the performance of employees at the East Africa bottling S.C. Addis Ababa?
4) What effect does organizational safety support have on the job performance of employees at the East Africa bottling S.C. Addis Ababa?
5) What is the effect of occupational hazard prevention on the job performance of employees at East Africa bottling S.C. Addis Ababa?

1.5. Significance of the Study

The research aimed to assess the impact of safety management practices on job performance at the East Africa Bottling Addis Ababa Plant. It would to satisfy to existing knowledge, inform policymakers, and help bridge the gap between safety strategy formulation and execution. The

findings would also promote strategic thinking and create a safe working environment. The study can serve as a reference for future research on related topics.

1.6. Scope of Study

This study covered the effect of Safety management on job performance among employees in East Africa Bottling S.C Addis Ababa Plant.

The study was geographically limited to Addis Ababa. The city is main capital city of the country and the place where East Africa Bottling S.C Addis Ababa Plant is located.

Despite the vast scope of the issues surrounding job performance, conceptually, the study limitedto investigate only the effective of Safety management. These major factors are namely safety & health rules, safety procedures & risk management, first aid support & training, organizational safety support, and occupational hazard prevention. Demographic factors like gender, sex, company size, type of work, etc. also affect job performance but not included as they are out of the scope of this study.

Methodologically, the study was employed descriptive and explanatory research design to investigate cause-and-effect relationships and also mixed research strategy approaches were used. In this study, convenience non-probability sampling technique was used for the fact that bottling companies are hesitant to disclose their staff's employment history.

Conceptually, dimensions of occupational health and safety practices were Occupational Hazard Prevention , Safety procedures and Risk Management , Organizational Safety Support , First Aid Support and Training , and Safety and Health Rules are considered as independent variables while job performance as dependent variable.

1.7. Limitation of the study

The decision to limit the study to Addis Ababa is understandable, given the specific context of the East Africa Bottling S.C Addis Ababa Plant. However, it's essential to acknowledge that the findings may not fully represent other regions or cultural contexts.

By focusing solely on safety management, it intentionally excluded demographic factors (such as gender, sex, company size, and type of work). While this streamlines the study, it's essential to recognize that these omitted factors could influence job performance indirectly.

The use of convenience non-probability sampling is practical but introduces potential bias. Participants who voluntarily participate may not be representative of the entire employee

population. Descriptive and explanatory research designs allow to explore relationships, but they cannot definitively establish causality.

1.8. Definition of Key Terms

Safety and Health Rules (SAHR) – refer to a set of guidelines intended to protect people from illness or injury caused by their work Hopkins, (2020). These rules are crucial for maintaining a safe and healthy work environment. They outline specific behaviors, procedures, or precautions that individuals should follow to prevent accidents, injuries, or harm.

Safety Procedures and Risk Management (SPRM) - A good safety and risk management is a system that is entirely integrated into the company and that is binding. Available policies, strategies,and procedures in the company provide standards and harmony (Mutemi, 2015).

First Aid Support and Training (FAST) – Refers to a support provision to a person who needs first aid medication along with training staffs to improve the motivation of participants in order to prevent occupational accidents so as to create positive behaviors. (Kaguathi, 2013)

Organizational Safety Support (OSS) – Refers to organizations with a good working climate may increase the potential of their workers to higher levels (Kaguathi, 2013).

Occupational Hazard Prevention (OHP) - Defined as controlling hazardous situations, appropriate physical working conditions, rewarding and recognition, development of friendship andworkers' fitness in jobs create an efficient and working environment (Schaap, 2016).

1.9. Organization of the paper

To answer the research questions and achieve general and specific objectives stated in the above, the thesis is organized as follows. Chapter one deals with introduction, which includes: background of the study, statement of the problem, objective and research question, significance of the study, and scope of the study; limitation of the study and definition of key terms. Chapter two deals with the review of the related literature that will appropriate and relevant to the current study.; chapter three presents the research methodology; which describes about the research approach, research methods, sampling design and sources of data, limitation of the study. Chapter four presents data it's, analysis and interpretation. Different tables and figures are used in this part to describe and analyze the quantitative data. Finally the fifth chapter presents the major conclusion drawn from analysis and findings of the study and possible recommendation for the identified problems also included.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The objective of this chapter is to compile all pertinent research that has been done on the subject of the study, which is the effect of safety management on work performance East African bottling S.C. Addis Ababa. The concept of industrial safety practice, the history of the health and safety management system, the effect of safety management on worker performance, employee and organizational performance, and more was covered in greater detail in this chapter. The study's conceptual framework and safety theory was also be sourced from this literature.

2.1.Theoretical Review

2.1.1. Concept of Industrial Safety Practice

Industrial safety practice (ISP) aims to improve the working environment for stakeholders by focusing on health, safety, and welfare. Establishing a strong culture of health and safety is crucial for reducing accidents. Health and safety laws can be enforced by various agencies, trade groups, and the private sector (Sikra, 2019). Employers who disobey regulations face penalties or termination orders. Successful economies demonstrate that workplaces with appropriate occupational health, safety, and ergonomics principles are productive and sustainable. Modern management relies heavily on human resources, and workplace health and safety are critical for efficient human resource performance (Janalta, 2021).

Aswathappa (2004) emphasizes the importance of a company's safety goals, focusing on four fundamental points: employee and public safety, prioritizing safety over expediency, involving all managers and employees in safety procedures, and complying with safety legislation. The ILO (2005) defines organizational health and safety as safeguarding workers to increase output and performance. A safety management system (SMS) is a systematic approach to managing hazards and risks, consisting of eight subsystems. Inculcating a safety culture in employees directly impacts productivity and profitability, with safety professionals driving and championing safety culture in industrial activities (Leap & Crino, 2014).

2.1.2. Effects of Safety Management on job performance

Effective use of information and communication networks in businesses enhances employee perceptions of management's commitment to occupational health and safety (OHS) and helps to lower the incidence of accidents (Gyekye, 2012). The planning and review process, management organizational structures, consultative arrangements, and particular program components all

function in concert as Occupational Health and Safety Management Systems (OHSMS) to enhance health and safety performance (Gallagher, 2011). The five fundamental characteristics of occupational health and safety procedures are what define them. These include safety and health regulations, first aid support and training, organizational safety support, safety procedures and risk management, and the prevention of occupational risks. Employee job performance is also impacted by safety and health regulations, risk management protocols, organizational safety support, and safety procedures.

2.1.2.1.Safety and Health Rules

Strong commitment of organizations for workplace safety allows an increase in desired worker behaviors and attitudes as well as a decrease in problems associated with occupational safety (Makandi, 2011). Safety management systems are integrated mechanisms designed to control the risks that may affect worker health and safety in organizations and at the same time to ensure that the company complies with the regulations. A good safety management system should be completely integrated with the company and with binding power; a cohesive system of policies, strategies and procedures provides consistency and harmonization (Fernández-Muniz, 2009). Health and safety policy and procedures are a part of efficient health and safety management framework. General health and safety policies demonstrate the management's willingness to provide the workers with a healthy and safe workplace (Christian, 2009).

2.1.2.2.Safety Procedures and Risk Management

A good safety and risk management is a system that is entirely integrated into the company and that is binding. Available policies, strategies, and procedures in the company provide standards and harmony (Mutemi, 2015). Risk management is a technique that has been used increasingly in organizations and public sector in order to improve safety and reliability and minimize losses. It includes defining, assessing, and controlling the risks (Cox & Tait, 1998). Similarly, occupational health safety risk management is also described as a three-phase process. First, the hazards in the workplace are defined. Second, the hazards underlying the risk are assessed. Finally, appropriate controls are put in place for accordingly defined risks (Lingard & Holmes, 2001). Understanding and managing all risks that would likely affect the organization will render better performance and competitive advantage.

2.1.2.3.Occupational Hazard Prevention

An effective working environment is produced by managing dangerous circumstances, providing

suitable physical working conditions, rewarding and recognizing employees, fostering the growth of friendships and companionship, and ensuring that workers are suited for their professions (Schaap, 2016). According to a survey of work-related health issues and occupational accidents, the construction industry and fields involving electricity, gas, steam, water, and sewage systems rank highest for occupational accidents (Tuk, 2015In their study, Albert and Hallowell (2013) hypothesized that while employing safety-related protocols, adhering to instructions, disconnecting electrical lines, and ceasing equipment operation in an effort to avoid accidents can be costly, they are also highly successful in preventing injuries. The study's conclusions emphasized how little advantage there was to using injury prevention techniques in comparison to other industries (such the construction sector). Thus, while investing in safety measures may not balance out economic returns, it adds value in the form of non-financial advantages (like lower worker turnover) and lower social costs (like social injustice) related to injury.

De Koster (2011) provided evidence that emphasizing safety reduced the number of accidents. First response, ambulance and hospital fees, payments for temporary or permanent disability from work or death, monetary and non-monetary damages due to the employee or employee's family, and insurance damage payments are examples of direct costs in this context. Indirect cost items include reputational damage, long-term efficiency, and legal costs. To enhance their performance in terms of safety, businesses should generally make investments in procedures that lower workplace accidents. This theory is reinforced by the fact that businesses like Nissan, Tata Steel, and Scania, who prioritize safety in their day-to-day operations and working techniques, have fewer accidents and spend less on related expenses.

2.1.2.4.Organizational Safety Support

Companies with positive work environments may help their employees reach greater potential (Kaguathi, 2013). The perception of employees is essential to the operation of the safety environment, and the safety climate that results from this perception known as the "shared perception of workers" is linked to practices, policies, and procedures that emphasize the importance and value of safety inside the company (Griffin & Neal, 2000). According to Zohar (1980), management's strong dedication to safety was the most constant component that led to the safety atmosphere.

Safety commitment is demonstrated by a series of differences: senior management regularly

participates in safety activities; safety officer holds higher rank and status in the organization; safety training is emphasized; open communication and close contact between management and workers; stable workforce (e.g., fewer turnovers), and promotion of safety via guidance and counseling rather than via coercion and admonition etc. However, the essence of conceptualization of safety climate in an institution is the fact that safety is a prioritized issue for enterprises. Managerial support for safety and importance of safety in the organization are considered the basis of safety climate.

Kabanoff (1995) defined the criterion of beliefs as regards what was important for individuals and the entire organization. Perception of organizational values is important since it influences the way workers interpret policies, procedures, and practices. According to Griffin and Neal (2000), for instance, safety climate perception was the extent the workers believe in the value of their safety and wellbeing in the organization.

2.1.2.5. First Aid Support and Training

It refers to a support provision to a person who is in need of first aid medication along with training staffs to improve the motivation of participants in order to prevent occupational accidents so as to create positive behaviors. (Kaguathi, 2013). First aid training in the scope of OHS is quite necessary in order to control the excessive self-confidence, i.e., the unrealistic "nothing happens to me" idea, and raise awareness as regards emergent situations. First aid training ensures that participants are protected against injuries and occupational diseases. Participants show better efforts for decreasing the risks are workplace subsequent to the first aid training. It can be said that the first aid training improves the motivation of participants in order to prevent occupational hazards and diseases. However, it should be noted that the degree of change towards positive behaviors due to the foregoing increased motivation is also dependent upon other organizational factors. A good rewarding mechanism is also required in order to establish occupational health and safety in the working environment (Lingard, 2002). Therefore, it can be said that first aid support and training (FAST) is associated with alienation and organizational performance.

2.1.3. Organizational and Employee performance

2.1.3.1.Organizational performance

Organizational performance refers to an organization's ability to efficiently utilize its resources and resources to achieve its operational goals. Performance management is a systematic process

for improving performance by developing individuals and teams within an agreed framework of goals, standards, and competency requirements (Griffin, 2006). It is owned and driven by line management and focuses on clarifying goals. Efficient performance in the human resources department is crucial for achieving set goals and objectives. By linking human resource practices and performance, organizations can motivate, attract, and retain top performers, leading to positive outcomes such as reduced turnover, increased profit margins, cost savings, customer satisfaction, growth, and increased market share (Armstrong, 2009).

The method a worker does his or her job; the tasks and responsibilities assigned to them, and the outcome of their actions in accomplishing the overarching organizational goal are all considered aspects of job performance (Armstrong, 2009). A performance measure program and other instruments like reports, 360-degree feedback, balance score cards, and other tools to assess progress can also be used to evaluate performance.

It is the purpose of a performance measurement program to gauge input, output, result, efficiency, or effectiveness. Measuring performance facilitates improved decision-making, encourages responsibility, permits organizational learning and development, and offers a way to compare performance Armstrong, (2009). Business organizations have many goals, including profitability, employee happiness, productivity, development, social responsibility, and the capacity to adjust to a constantly changing environment. As such, measuring organizational performance may be challenging. While financial metrics have historically been used to define performance, some academics have developed a more comprehensive definition of performance that takes into account nonfinancial metrics like market share, product quality, customer satisfaction, customer loyalty, and company image (Kirkpatrick, 2006).

2.1.3.2.Employee Performance

Employee performance is one of the most significant aspects influencing an organization's performance. HR is a crucial component that directly affects and enhances an effective organization's performance (AL-Qudah, and Al-Shatanawi, 2014). Any organization's ability to succeed is contingent upon the actions and decisions made by its workforce, even while a variety of other elements also have a role, including the organization's size, operations, and surrounding environment. The workplace performance of employees is often assessed through the use of human resource management methods, and in the current highly competitive climate, there is a propensity for improving HRM practices to also increase employee performance (Caliskan,

2010; Bowra, Sharif, Saeed, and Niazi, 2012). The way an employee performs is how they apply their knowledge, talents, experiences, and skills to carry out the tasks that their supervisors have given them in an efficient and successful manner. Employee performance is important in many ways, such as: 1) helping to determine the cost of resources used; 2) serving as a gauge for the amount and caliber of work completed; 3) supporting businesses in their efforts to survive and grow; 4) aiding in the evaluation and achievement of set performance goals; and, 5) boosting employee performance efficiency helps in decision-making.

The following factors can be used to assess employee performance, according to Hamzah, Abdullah, and Hamzah (2014):

1) Employee attributes, which attest to crucial traits or attributes for the company.
2) Employee behaviors, which are frequently used to assess or define the kinds of behaviors necessary for an employee to carry out a job; and
3) Employee successes, which show the degree to which particular goals or objectives have been attained, surpassed, or not at all.

Employee performance, according to Hamzah et al. (2014), lacks a unifying theory. One important component of an organization's performance is the effectiveness with which it manages, develops, and inspires its workforce. Performance is hence greatly impacted by people management. People's actions on the shop floor are directly related to their performance (Lodewijk, 2017).

Employee performance is the documentation of the outcomes attained via the execution of specific tasks or activities over a given amount of time. According to Bernandin and Russell (2009), it is a collection of actions that are pertinent to the objectives of the company or the organizational unit where an individual works.

Armstrong (2010) suggests that understanding organizational goals is achieved through employee performance evaluation, which aligns with the workforce's measurements, competencies, and skill sets. In today's global competition, businesses are aiming to create a high-performing work culture that integrates corporate and business strategies, fostering individual contributions to the organization's success. This "performance culture" often involves the human resources department's responsibility to ensure workers' health and safety, leading to high-performance output (Boxal and Purcell, 2008).

Armstrong (2012) emphasizes the importance of managers creating a high-performance culture

where team members take ownership of business processes and contribute to the organization's success. Safety and health issues are increasingly recognized as crucial components of worker performance, and an organization-wide strategy for performance enhancement is necessary. According to Pitchard (1990), increasing productivity is critical for each business, and measuring productivity is essential. Effective supervisors and managers play a proactive role in staff performance, empowering them through performance management. Managers and staff must be fully aware of workplace safety to ensure high-level functioning. Good managers serve as examples, encouraging and supporting employees' achievement, and employee performance evaluations ensure commitment to the organization's mission statement and overall goals.

According to Armstrong (2012), the goal of managers is to create a high-performance culture where team members and individuals take ownership of the ongoing enhancement of business processes as well as their own abilities and contributions within a structure that offers competent leadership. The majority of the biggest companies in the world are starting to realize that safety and health issues can no longer be ignored in business and work-related activities. Gilley et al. (2003) contend that an organization-wide strategy for performance enhancement is necessary, with workplace health and safety serving as crucial components of worker performance. One cannot approach the goal of increased worker productivity in a vacuum. The advantages of maintaining workplace safety must not outweigh the expenses of occupational safety and health initiatives (Aldag, 2004).

2.2.Theory related to safety

2.2.1. Elton Mayo’s management style

Regarded as the father of the human relations movement, Elton Mayo is one of the most well-known pioneers in the School of Human Relations. Taylor thought of man as an economic animal that would react to rewards. In contrast, Elton Mayo's management technique was different. According to Nwachukwu (1992), Elton Mayo carried out a number of investigations at the Western Electric Company's Hawthorne Plant when he was a graduate student at Harvard University. These research sought to ascertain how lighting affected workers' productivity. The lighting was adjusted from 24 to 46 to 70 foot candles, ranging in brightness from quite dark to very bright in the control group, the illumination didn't change. In every case, worker productivity improved, indicating that there was no correlation between production and illumination. Lower illumination intensity did not decrease production; on the contrary, it

increased. The researcher was taken aback and thought that the output had changed for a reason other than lighting. With rest intervals, the experiment was repeated. When the rest interval was shortened, productivity increased rather than decreased. It was necessary to go back to the factory's initial state before to the experiments in order to identify the reason behind the productivity increase. Employees were forced to work 48 hours a week, the rest break was eliminated, and the lighting was restored to its former state.

2.2.2. Accident Proneness Theory

The word "accident proneness" was first used by psychologist Eric Farmer in a 1925 study he wrote while developing differential testing for workers who were vulnerable. From that point on, the likelihood of accidents became a signpost for the safety theory, which used unique hypotheses to explain accidents. Karl Marbe develops the ideas of "unfallneigung" (accident proneness) and the "unfallen" (accident prone worker) separately in Germany at the same time. Using the accident records of the Berufsgenossenschaften, the German accident insurance, Marbe, a psychologist from Würzburg University (Burnham, 2008; Farmer, 1925; Hale en Hale, 1972; Marbe, 1925). Tests are being developed by Marbe and Farmer to identify workers who are accident-prone or unfallen, and to keep them away from hazardous jobs. Advances in psycho-technique, an applied branch of psychology, have made this selection process feasible. Their exams were applied in trade and industry, and they were used more widely for pilot selection during World War I (Anonymous, 1973; Hoorn et al., 1980; Lochem, 1943).

Farmer and associates have created an assessment tool known as the "aesteto-kinetic battery of tests," which gauges an employee's ability to focus and coordinate. Tests are able to identify this impulsive conduct, which is a major contributing factor to accidents, in these accident-prone workers because they act quicker than they think (Farmer and Chambers, 1926, 1929, 1939; Farmer et al., 1933; Farmer, 1940, 1942). These assessments have been used with a variety of workers, including London bus drivers, shipwrights, mechanics, electricians, and apprentices in the army and marines. A relatively modest association of 0.2-2.04 was found between test results and accidents with an exposed population that varied from 650 to 1843 workers and a sample length of 12 weeks to 5 years. It is impossible for researchers to draw any other conclusion than that accident proneness depends on a wide range of poorly understood elements. The accident proneness hypothesis may be used to industrial safety practices and employee performance as a way to stop workplace accidents before they happen and hence lower the

required costs borne by accident victims.

2.2.3. . Social Cognitive Theory

The Social Cognitive Theory, associated with self-efficacy and outcome expectancy, is widely used in health-related settings due to its widespread application and overlap with similar theories. The theory focuses on psychology's need to incorporate social context in studying human behavior and how cognition is used to adapt to social contexts (Bandura (2011) It argues that cognition is part of social acts, highlighting the importance of understanding people's social nature. People are said to aspire to control the different elements that make up their surroundings. Everybody wants to be in control of the things they want to happen and the things they don't want to happen (Barone, 2016).

Bandura (2011) posits that people are exposed to various interdependent situations daily, determining the best approach, assessing their self-efficacy, determining if their behavior will produce the desired outcome, and deciding the vitality of obtaining the outcome. Peterson (2010) observed that safety-related education occurs reflexively in industrial settings, with a social cognitive perspective highlighting the various effects. To have the greatest impact on employees' self-efficacy, safety education should focus on providing employees with tools to exercise personal control over their health habits. This would involve training them to perform work tasks safely, potentially influencing their outcome expectancies.

Employees' expectations about the outcome may alter after watching a safety film depicting the amputation of a finger. The degree of the damage may cause social responses as well as physical disabilities. A poor self-evaluation may arise if safety is a key priority. When safety education and training are combined, workers' self-efficacy rises and their expectations for results are shaped. Safety self-efficacy may be raised via providing staff with high-quality training and letting them take part in the safety process. Practical techniques for preventing injuries should be the main emphasis of safety initiatives (Cretu et al., 2011).

2.2.4. Safety Climate Theory

Law (2011) defines psychological safety climate (PSC) as common views on organizational policies, methods, and procedures for safeguarding the psychological well-being and safety of workers, which mostly stem from managerial practices. The PSC theory builds on ideas from the literatures on stress, psychological risk, and organizational climate to propose that PSC at the organizational level impacts work circumstances and, in turn, psychological safety climate. It

also expands upon the job demands-resources framework.

Dollard and Bakker (2010) observed in their research that PSC is a particular feature of organizational climate that has to do with employees' freedom from psychological injury at work. It is also stated to demonstrate management's dedication to employees' mental health and their preference for preserving mental health above meeting output targets. PSC is comparable to organizational climate in that it is seen as an asset of the company and is comprised of the collective opinions of people working there about the company's commitment to safeguarding their psychological well-being. James (2008) posits that the PSC components are mostly derived from the notion that people assign significance to their work environment, which includes their working circumstances, management systems, compensation, and relationships with coworkers, and fair treatment.

2.2.5. Domino Theory /Sequence of Events

This idea was created by Heinrich (1959) using data from industrial accidents, which influenced a large portion of the later industrial engineering research on accidents and injuries. The author was among the first to draw attention to the fact that the same factors that cause manufacturing to be excessively expensive and goods to be of low quality also cause accidents and injuries. Since the 1930s, Heinrich's–Domino model has been one of the most extensively studied and utilized industrial engineering models of occupational accidents and injuries, despite the fact that many other models have been suggested throughout the years.

According to Micah and Atkins (2012), Heinrich-Domino theory that was developed in 1931 stipulates that an incident is one factor in a sequence of events that may result in an injury. The theory states that: - 1) A potential injury (the final domino) occurs as a result of an incident. 2) An incident occurs only as a result of a personal unsafe act or mechanical/physical hazard. 3) Personal or mechanical hazards exist only because of faults of people. 4) Faults of people are inherited or acquired as a result of their social environment in which they were born, bred or educated.

The converse of these statements is not true and for an injury or damage to property to occur, all four factors are involved. It therefore follows that if one of the factors in the sequence leading to an accident can be removed, then the loss can be prevented. Attention should be mainly focused on the factor preceding the accident. Heinrich stated that the unsafe acts of persons constituted a dominant source of accidents. Control of individual staff was thus the key to the prevention of

these accidents.

2.3.Empirical Review

Iksiroh, Anissofiah and Sarifuddin (2019) examine the use of personal protective equipment for reducing accidental risk on board. The study discussed the use of PPE by student officers during accidents on board. The study used a quantitative method by questioner dissemination to 60 student officers (30 from nautical study and 30 from engineering study) from different grades. The study found that 47 respondents had suffered accident related to PPE, 11 related to improper PPE, 6 accidents due to the absence of helmet, 18 accidents due to the absence of safety shoes, 4 accidents due to the absence of goggle, and 8 accidents due to the absence of glove, resulting in a broken finger accident. The study concluded that the use of personal protective equipment can be use in reducing accidental risk.

In the study of Ugorji (2014) on effect of industrial safety management on employee performance of the Nigerian manufacturing sector of Enugu State, Nigeria, the study was to identify the relationship between industrial safety management and employee performance, identify the hazards encountered by employees in the Nigeria manufacturing sector, to bring to the fore safety provisions for employees in the manufacturing industry, ascertain that orientation and training influence safety management in the manufacturing organizations, and how safety issues were managed in the manufacturing industry. The population of the study was one thousand, two hundred and twenty (1220) obtained from the selected manufacturing firms in Enugu State of Nigeria. From this, a sample size of three hundred and one (301) was drawn, using Taro Yamane's formula. The instruments for data collection were structured questionnaire and interview. The research design adopted was survey design. Data were presented in frequency tables, Z-test and Friedman Chi-square were used to test the hypotheses. The findings indicate that there were significant relationship between industrial safety management and employee performance, physical and chemical hazards were the hazards encountered in the manufacturing industry, personal protective equipment is the safety provision for employees, orientation and training have significant influences on safety management implementation in the manufacturing industry, safety issues in the manufacturing industry were managed by making the environment hazard free to a great extent.

In the study of Ewuzie and Ugoani (2016) on the degree of health and safety education needs in Nigerian Bottling Company Ltd. Health and Safety programs receive high attention from

governments all over the world because the productivity of an employee is a function of some factors including health and safety. Health is a state of complete physical, mental, social, spiritual and occupational well-being, not merely the absence of disease or infirmity. The Nigerian Factories Act posits that employers should make adequate arrangements for the health andsafety of employees including the provision of adequate supply of clean drinking water which should be maintained at suitable points easily accessible to all employees. The survey research design was employed for the study. The sample consisted of 100 females and 200 males; ranging in age from 21 to 60 (Mean: 50:5 years) Data were analyzed through descriptive and Chi-Square statistical methods and the result showed a high degree of health and safety education needs in Nigerian Bottling Company Ltd.

In the study of Okechukwu and Onyia (2022) who examined the relationship between occupational health safety practices and employee performance in manufacturing firms in Enugu State. The specific objectives include: Evaluate the relationship between safety planning and output of manufacturing firms in Enugu state, Nigeria, and investigate the relationship between training program and quality of service in manufacturing firms in Enugu state, Nigeria.

The target population of this study consists of senior and junior staff of the selected food and beverage manufacturing firms in Enugu State. Out of a population of two thousand, five hundred and fifty-four (2,554) staff, the sample size of 486 was chosen after applying the Bill Godden (2004) formula for the determination of an adequate sample size. Three hundred and ninety-two (392) returned their questionnaire and accurately filled The Pearson correlation coefficient was used to assess the reliability (r). It also yielded a good reliability coefficient of 0.84. Regression analysis was used to examine the data. The findings revealed that there is a positive significant relationship. In Enugu State, Nigeria, there is a link between safety planning and manufacturing output. There was a positive significant relationship between training program and quality of service in manufacturing firms in Enugu state, Nigeria, r(95, n =486) =427.877, P0.05, r(95, n =486) =575.996, P0.05. According to the findings, safety planning and training programs had a positive impact on the output and service quality of food and beverage manufacturing firms in Nigeria's Enugu state.

Deo, (2005) after an explosion at BP’s Texas City Refinery, the investigation revealed that the company had put much emphasis on personal safety thereby ignoring the safety of their processes. Effective safety management means that organizations need to ensure they are looking

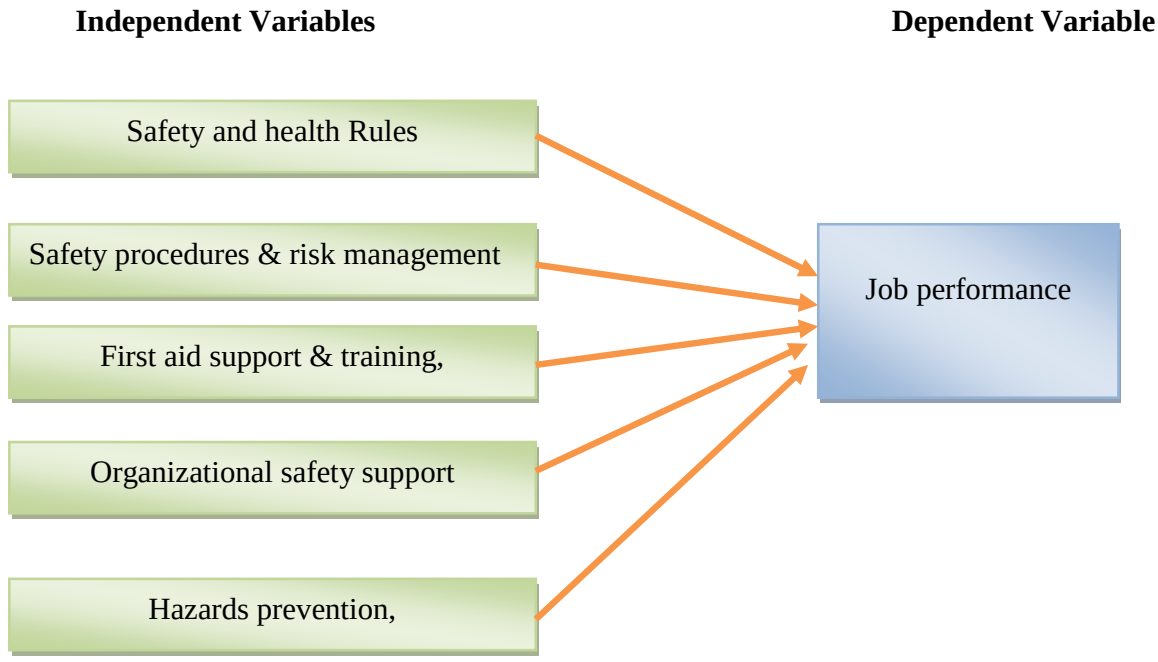
at all the risks within the organization as a single system, rather than having multiple or competing safety management system. He opines that if safety is not seen holistically, it can interfere with the prioritization of improvement or even result in safety issues being missed. He concluded that the antidote to such mistake is the proper evaluation of all risks, a key aspect of an effective safety management system.

Adu-boateng (2014). carried a review on the foundation of safety management, which states that safety is a matter of mutual concern and respect for yourself, your fellow worker, and the equipment you will be using. A common phenomenon of this study and previous research findings is that human errors (intentional and unintentional) and system failures are fundamental to the occurrence of accidents. These human errors unsafe acts / conditions coupled with managerial design failures create room for the occurrence of accidents. Attabre-Yartey (2012) state that your eyes are too valuable to be wasted. He stresses that the eyes need every bit of protection they can get. Imagine how long a welder eyes would last without a protective shield. Not only is the shield provided with a special glass to screen out harmful rays, but it also prevents the welder from being hit in the eyes with molten-mental. The same thing would hold true for any person involved in brazing.

2.4.Conceptual Framework

The aim of this study was to examine the effect of safety management on job performance among employees in East Africa Bottling S.C Addis Ababa Plant. According to the aforementioned theoretical and empirical literature review, identified effect of Safety management on job performance safety and health management practices, hazards prevention, safety procedures & risk management, organizational safety support, first aid support & training, safety & health rules are considered as independent variables, whereas the dependent variable is job performance. The figure 2.1 depicts the relationship between the independent and dependent variables as the model suggested by Christopher (2012).

Figure 2. 1: Conceptual framework of the study



Source: Christopher, 2012

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter provides an explanation of the methodology and overall study design. Thus, the kind of research design, population to be studied, the sampling process, sample size and methods of sampling, data source, methods of data analysis and tools for gathering data, model specification, and an explanation of the instrument used to collect data, and the techniques for data analysis, presentation, and interpretation will be presented.

3.1. Research Approach

The researcher was used a mixed research strategy to achieve the study's goal and provide answers to the research questions. When conducting a mixed method study, it makes sense to gather and analyze both quantitative and/or qualitative data in one study. The data was prioritized, collected concurrently or sequentially, and integrated at one or more points during the research process. (Gutmann & Hanson, 2002) stated differently, the technique assists the researcher in addressing issues that cannot be resolved by relying solely on qualitative data or qualitative approaches. Combining detailed information of participant viewpoints with the ability to identify patterns and generalizations, mixed approaches yield a more comprehensive picture.

3.2.Research Design

This study follows the descriptive and explanatory research design to investigate the relationship between effect of Safety management (predictors) and job performance among employees (construct) variables. This design aims to explore relationships between variables and identify cause-and-effect relationships. It's suitable for investigating how safety management practices directly influence job performance.

3.3. Target Population, Sample Size and Sampling Technique

3.3.1. Population

A population can be defined as the complete set of subjects that can be studied: people, objects, organizations from which a sample may be obtained (Shao, 1999). As it is defined in the scope, the study investigates the proposed relationship between & effect of safety management practices and job performance variables in East Africa Bottling S.C Addis Ababa Plant.

East Africa Bottling Share Company is Franchise Bottler in Ethiopia under Beverages Africa. It have five production plants in Addis Ababa, Dire Dawa, Bahir Dar, Hawasa and Sebeta with an

aggressive expansion plan throughout the country, As of November, 2023, there are a total of with more than 2,000 employees. The company, 61pc controlled by South African Beverage Company (SABCO), employs close to 1,000 employees at its Addis Ababa plant and has 2,500 employees across the three plants it operates in Sebeta, Bahir Dar, Dire Dawa and Hawasa.

Thus, the sample frame constitutes 1000 both permanent and contract employee who have been actively working in the companies more than a year. Serving more years in the respective companies is believed to have the opportunity to have detail information regarding company's policy and practices towards occupational safety related issues.

3.3.2. Sampling Technique

There are two sampling strategies in use to select the targeted respondents from the sample frame. There are probability and non-probability methods of sampling (Creswell, 2009). The former applies to random (equal chance) selection, while the latter is subjective and relies on the researcher's decision or reasoning. In this study, convenience non-probability sampling technique was used for the fact that bottling companies are hesitant to disclose their staff's employment history. This makes probability sampling impractical, and convenience sampling is appropriate.

3.3.3. Sample Size

Sampling is the process of selecting a number of study units from a defined study population (Saunders, 2010). Determining sample size is very important issue because samples that are too large are uneconomical while too small samples may lead to inaccurate results. Here in this study, sampling is required as the targeted populations are substantially larger in number to conduct census. Therefore, proportionate sample size using Yemane's sample determination formula will be:

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

Where:

n =sample size,

N = population size

e = level of precision considered 5%

$$\mathbf{n=\frac{1000}{1^{+1000(0.05)2}}} = \underline{\mathbf{285.7143\approx286}}$$

Thus, the study had a sample of **286** respondents to participate in the study.

Selection Criteria for 286 respondents by Units (individuals, groups, etc.) are chosen because they

are readily available or accessible to the researcher. This could be due to geographical proximity, availability at a specific time, or willingness to participate in the study. Not Random: Convenience sampling is not random. Unlike probability sampling, where each unit has an equal chance of being selected, convenience sampling relies on accessibility. For instance, you exclude people who didn't pass through that specific subway station on the day you collected data. Use Cases: Convenience sampling is often used in qualitative research, medical studies and social sciences. It's suitable when you want to gauge attitudes, run a pilot test, or generate hypotheses for future research. Bias: Be aware that convenience sampling can introduce biases, such as selection bias and sampling bias. Researchers should interpret results cautiously.

3.4. Type of Data and Data Source

According to Catherine (2007), data may be collected as primary, secondary or both. Primary data are originated by the researcher for the specific purpose of addressing the problem at hand. On the other hand, secondary data contains relevant data that has been collected for a different purpose, but from which the conclusion is valuable for the purpose.

The primary source of data is concerned employees and management. To get further information on the impact of safety management on job performance at East Africa Bottling S.C. Addis Ababa, closed-ended questionnaires and semi-structured interviews was used. Additionally, the questionnaire was designed to gather information from employees about their experiences with safety management on job performance dimensions, such as first aid support and training, safety procedure and risk management, safety and health regulations, organizational safety support, and organizational safety support toward safety management on job performance. This was done by keeping the research objective in mind.

3.5. Data Collection Instrument

3.5.1. Questionnaires

Primary data was gathered from selected respondents using a questionnaire. It was meticulously designed in order for it to be successful in gathering the necessary data. A structured questionnaire is one that has pre-planned, specific, and precise questions. All responders will see the questions in exactly the same order and with exactly the same language. This kind of standardization is used to make sure that each responder answered the same set of questions (Kombo & Tromp, 2011).

Primary data was collected from selected respondents using a structured questionnaire, which is

meticulously designed with pre-planned, specific, and precise questions. This standardization ensures that all responders answer the same set of questions, ensuring a consistent and accurate data collection process. A 5-point Likert-scale based questionnaire was used as a major instrument of data collection. Likert scale ranges from 1- for "Strongly disagreed" to 5- for "strongly agreed".

3.5.2. Interviews

The practice of the effect of safety management on East African workers' job performance interviews are deem by the researcher to be the most effective method of collecting accurate and trustworthy data related. The personal interviewing method was used to accomplish the objectives. Though it had the drawbacks of being extremely expensive, time-consuming, and potentially biased due to respondent desires to appease the interviewer, it is the most adaptable and productive method of communication that allows for spontaneity and provides the ability to steer the discussion back to the topic outlined when discussions are fruitful (Aaker & Day, 1990).

Additionally, it facilitates the acquisition of fresh perspectives, produces copious amounts of data, delves deeply into the subject, gives the interviewer freedom when conducting the interview with a specific person, and aids in the clarification of questions and cognitive components of the response (Kumaga, 2010). In order to validate and enhance the questionnaire findings, managers and supervisors of the East Africa Bottling S.C. Addis Ababa Plant was participated in semi-structured interviews in order to get adequate information about the research topic.

3.6. Data Analysis Method

Data in this study was analyzed using both descriptive and inferential statistics. Descriptive statistics was used to interpret data in general and investigating research objectives inferential method is used using statistical package for social science (SPSS) version 25.0. Descriptive statistics was applied to interpret demographic variables of the respondents, mean and standard deviations of each study variables, whereas inferential statistics, correlation and multi-regression analysis. Tables and graphs were used to present analysis results pictorially.

3.7. Model specification

The proposed research model was formulated based on the identified independent and dependent variables. It investigates their relationship using multiple linear regression method. Multiple linear regressions were made to define the relationship and to evaluate the most dominant safety

management practices effects on the job performance.

Dimensions of occupational health and safety practices were Occupational Hazard Prevention (OHP), Safety procedures and Risk Management (SPRM), Organizational Safety Support (OSS), First Aid Support and Training (FAST), and Safety and Health Rules (SAHR) are considered as independent variables while job performance as dependent variable. In order to investigate the relation between the two variables, a multi-regression analysis model specification is designed as follows:

Where:

$$JP = \beta 0 + \beta_1 SAHR + \beta_2 OSS + \beta_3 FAST + \beta_4 SPRM + \beta_5 OHP + e$$

JP - Job Performance, -,

OHP -Occupational Hazard Prevention,

SPRM -Safety procedures and Risk Management

OSS - Organizational Safety Support

FAST -First Aid Support and Training

SAHR -Safety and Health Rules

$\beta 0$ - Constant.

$\beta 1,2,3,4,5$ - Coefficients of Predictors

3.8. Validity and Reliability

3.8.1. Validity

Validity is the degree to which the data collection process correctly calculates what it is supposed to quantify (Saunders, 2010). To determine the validity of the research instrument for the objectives of this study, the researcher used the opinions of experts in the area, including university research instructors, mainly the advisor. To ascertain whether or not the surveys were appropriately handled, the researcher also consulted with experts in organizations. This increases the validity of the research instrument by making revisions and modifications easy. Finally, after having made all the requisite corrections, it is found reasonable to distribute them to the targeted respondents.

3.8.2. Reliability

Measure consistency is the primary issue of reliability, as defined by Bryman and Bell (2013). Reliability is the extent to which a measurement produces consistent findings. Cronbach's alpha is a statistical metric used to determine how closely related a sample set is to itself as a whole, or its

internal consistency. The scale dependability metric is recognized as such. Cronbach's Alpha (α), a widely used scale dependability statistic, was employed in this investigation. It assesses the internal consistency of the measurement items relevant to safety management. Data were collected from East Africa Bottling S.C. in Addis Ababa, survey questions was focused on the same concept (safety management, for example), and statistical software (such as SPSS) wase used to calculate Cronbach's Alpha in order to demonstrate dependability. According to Cronbach (1951), a result above 0.700 is regarded as extremely acceptable, while a value above 0.600 is likewise thought appropriate.

Table 3.1: Cronbach's alpha test Reliability Statistics

Items	Number of items	Cronbach's Alpha
SAHR - Safety and Health Rules	5	0.826
SPRM - Safety procedures and Risk Management	5	0.826
FAST - First Aid Support and Training	4	0.814
OSS - Organizational Safety Support	4	0.814
OHP - Occupational Hazard Prevention	5	0.826
JP – Job Performance	5	0.826
	28	0.822

Source: Survey Result, (2024)

The Cronbach's alpha result of 0.822 on table 3.1 which consists of 28 items, indicates a good level of internal consistency among the items that measure safety management's effect on job performance at the East Africa Bottling S.C. Addis Ababa plant. This suggests that the items on study questionnaire are reliably measuring a single underlying construct, which in this case is the relationship between safety management and job performance.

In the context of this study, this high Cronbach's alpha value supports the idea that the various aspects of safety management examined such as safety and health rules, organizational safety support, first aid support and training, and occupational hazard prevention are consistently related to how employees perceive their job performance.

3.9. Ethical Considerations

As a scientific procedure and endeavor, research has its own fundamental ethical standards that must never be violated. For example, all cited sources that are used and mentioned in the study was cited. Thus, it is important to give credit to the writers of books and publications, and

information was gathered from reliable and pertinent sources. In order to ensure that the research is legitimate and accepted by academic communities and users of the findings, the researcher was respect and adhere to established ethical guidelines with regard to the current study. Participants in the study was only participate voluntarily, and before completing the questionnaire, they was be asked to confirm that they are ready. The information collected will only be used for research purposes. The identities, privacy, and signatures of participants (workers) shall remain secret and unpublished in the questionnaire. Additionally, the researcher was deliver the study's findings objectively and without falsifying any information.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATIONS

This chapter covers presentations, discussions, and analysis of original data collected through surveys. The main objective of the chapter was to examine the effect of safety management on job performance employees in East Africa bottling S.C Addis Ababa plant using proper model testing and descriptive and inferential statistics. The first section focuses on demographic factors, while the second section discusses the descriptive and inferential statistics of converting raw data into meaningful information that can be interpreted to explain a set of dimensions. They represent one of the most crucial preliminary phases of data processing in statistics. A variety of results, such as frequencies, percentages, means, and standard deviations, may be obtained from this type of statistical study (Pallant, 2007). A subset of statistics known as inferential statistics is focused on analyzing, interpreting, and formulating inferences regarding the data's source (Dejene, 2011).

For this study, a questionnaire with 28 closed-ended items was used to collect information from employees of East Africa bottling S.C Addis Ababa plant regarding the independent variables (Safety management on job performance safety and health management practices, hazards prevention,safety procedures & risk management, organizational safety support, first aid support & training, safety & health rules) that affect the dependent variable (job performance) do and further specific objectives. A total of 286 questionnaires were distributed. Of the total dispatched questionnaires, 276 (96. 50%) were filled out and returned. managers and supervisors of the East Africa Bottling S.C. Addis Ababa Plant was participate in semi-structured interviews in order to get adequate information about the study issue to validate and improve the questionnaire findings.

4.1.Demographic Characteristics of the Respondent

The respondents' gender, age, educational background, experience in the organization and department in which they recently worked at East Africa Bottling S.C Addis Ababa are all included in the study's demographic profile. A summary of this is provided in table 4.1 below.

Table 4.1: Respondents' Demographic Characteristics

Demographic profile	Description	Frequency	Percent
Sex	Male	175	63.41%
	Female	101	36.59%
Total		276	100.00%
Age	<25 years	18	6.52%
	26-30 years	23	8.33%
	31-35 years	113	40.94%
	36-40 years	85	30.80%
	41-45years	28	10.14%
	> 46 years	9	3%
Total		276	100%
Educational level	grade 1-8	39	14.00%
	grade 9-12	60	22.00%
	Vocational (10^{+})	78	28.00%
	Diploma	30	11.00%
	BA Degree	49	18.00%
	MA/MSc	20	7.00%
Total		276	100%
Experience	1-5years	65	36.67%
	6-10 years	62	33.33%
	10-15 years	123	30.00%
	≥ 16years	26	0.00%
Total		276	100.00%
Department in which they recently worked	Supply and Facility Department	85	30.80%
	Factory Operations Department	65	23.56%
	Manufacturing Department	36	13.04%
	Finance Department	8	2.90%
	HRM Department	27	9.78%
	Project Management office	6	2.17%
	Engineer department (Architect, Engineer & Foreman)	49	17.75%
Total		276	100.00%

Source: Survey Result, (2024)

Table 4.1 indicates the demographic data in at the East Africa Bottling S.C. Addis Ababa plant. Based on the prior statistics, there are 101 (36.59%) female workers and 175 (63.41%) male

employees. Given that there may be gender-specific safety issues or restrictions, the larger percentage of male employees may be significant.

Referring age category the majority of employees are between 31-40 years old (71.74%), which suggests a relatively experienced workforce. This could imply a higher level of understanding and adherence to safety protocols.

Regarding the educational background of the respondents most employees have at least a vocational level of education (28%) or higher. This could correlate with a better understanding of safety management practices.

As far as the experience is concerned, a significant number of employees have 1-10 years of experience (70%), which might reflect a mix of fresh perspectives and established knowledge in safety practices.

It was also found that the Supply and Facility Department has the highest number of employees (30.80%), followed by the Factory Operations Department (23.56%). These departments may have different safety challenges and performance metrics.

In terms of safety management, these demographics can help identify specific training needs, communication strategies, and safety policies that are tailored to the workforce's characteristics. For instance, younger employees might benefit from more engaging and interactive safety training sessions; while more experienced workers might appreciate advanced workshops that acknowledge their experience and knowledge.

Understanding the demographic profile is crucial for developing effective safety management strategies that can enhance job performance. It allows for targeted interventions that consider the unique needs and characteristics of different employee groups. By aligning safety management practices with the demographic data, the company can foster a safer work environment that supports optimal job performance.

4.2.Descriptive Analysis

Under the description of study variables, summary of occupational safety and health dimensions (safety & health rules, safety procedures & risk management, first aid support & training, organizational safety support, and occupational hazard prevention)and job performance are discussed. Respondents evaluated this dimension with five-point Likert scale. According to Best (1987), the scale is set in such a way that respondents strongly disagreed if the mean score value isin the range of 1.00 – 1.80; disagreed within 1.81 – 2.60; neither agreed nor disagreed within

2.81 - 3.40; agreed if it is in the range of 3.41 – 4.20; while strongly agreed when it falls within 4.21 –5.00 (Best and khan1995). In addition, standard deviation shows the variability of an observed response.

The study's descriptive statistical findings were for each of the 276 total observations of the variables. Additionally, it explains the general characteristics of the variables used in the research and presents an interpretation of them as follows:

Table 4.2: Descriptive statistics analysis of variables

	N	Minimum	Maximum	Mean	Std. Deviation
SAHR - Safety and Health Rules	276	3.00	5.00	2.1559	0.6786
SPRM - Safety procedures and Risk Management	276	3.00	5.00	2.8179	0.7510
FAST - First Aid Support and Training	276	2.00	4.00	2.3886	0.6816
OSS - Organizational Safety Support	276	3.00	5.00	2.4338	0.5710
OHP - Occupational Hazard Prevention	276	4.00	5.00	2.0979	0.7862
JP – Job Performance	276	4.00	5.00	2.2655	0.8351
Valid N (listwise)	276	3.17	4.83	2.3599	0.7172

Source: Survey Result, (2024)

Table 4.2 reveled that descriptive statistics information in relation to safety management and job performance: SAHR - Safety and Health Rules Mean: 2.1559 and Standard Deviation: 0.6786. This suggests that employees generally perceive safety and health rules positively, with a mean score above 4. The standard deviation indicates moderate variability in responses.

Regarding SPRM - Safety Procedures and Risk Management Mean: 2.8179 with Standard Deviation: 0.7510 Employees rate safety procedures and risk management slightly lower than safety rules, but the lower standard deviation suggests that opinions are more consistent among employees.

Comparably, the First Aid Support and Training (FAST) Mean is 2.3886, with a Standard Deviation of 0.816. The mean score for first aid support and training is the lowest among the categories, indicating potential areas for improvement. The higher standard deviation shows a wider range of opinions on this aspect.

As far as OSS - Organizational Safety Support Mean: 2.4338 Standard Deviation: 0.5710

Organizational safety support is viewed positively, similar to safety and health rules, with a mean score above 4. The standard deviation is moderate.

Occupational Hazard Prevention or OHP: Average: 2.0979 Deviation Standard: 0.7862. The greatest mean score goes to occupational hazard prevention, indicating that workers believe this sector is well-managed. The comparatively low standard deviation suggests that staffs are in accord.

JP - Performance of job: Average: 2.2655Deviation Standard: 0.8351 Employee perceptions of the organization's performance are generally positive, with a mean score of more than 4. The category with the lowest standard deviation across the staff members indicates a high level of agreement.

Average for all: 2.3599 Deviation Standard: 0.7172. The fact that the mean score for all categories taken together is higher than 4 suggests that people believe safety management has a favorable impact on job performance. When taking into account all the components together, there appears to be greater variability, as indicated by the higher total standard deviation.

These finding indicate that while there is a generally positive perception of safety management, there are areas, particularly first aid support and training, where there could be room for improvement. The consistency in the responses for occupational hazard prevention and organizational performance suggests that these are strengths of the current safety management system. Enhancing areas with lower scores could potentially lead to even better job performance.

4.2.1. SAHR - Safety and Health Rules

The SAHR - Safety and Health Rules are a critical component of workplace safety management, focusing on the regulations and guidelines that aim to protect employees' health and ensure a safe working environment. These rules cover various aspects, from the timing of rest breaks to the enforcement of safety measures, even under tight schedules. They also include the implementation of health examinations before and after employment**.**

It's important to consider how these rules are communicated, understood, and implemented within the organization. Effective safety and health rules not only prevent accidents and illnesses but also contribute to a culture of safety that supports employee well-being and productivity. Table 4.3 analyzing the SAHR data, that can make recommendations for strengthening safety management practices, which in turn could lead to improved job performance across the plant.

Table 4.3: Descriptive Statistic for SAHR - Safety and Health Rules

Statements	N	Mean	Std.Deviation
Timing for sufficient rest is underway in my organization.	276	2.3173	0.6388
Safety rules are always practical in my organization.	276	2.1257	0.8503
Safety rules are followed in my organization even under tight schedule.	276	2.0963	0.6367
Health examination is made in my organization prior to the employment.	276	2.2510	0.6446
Periodical health examinations are undertaken in my organization after hiring	276	1.9893	0.6226
Aggregate result	276	2.1559	0.6786

Source: Survey Result, (2024)

Table 4.3 shows the statistics from the SAHR - Safety and Health Rules about safety management and how it affects worker performance. I've started the period of appropriate rest in my organization. Standard Deviation: 0.6388, Mean: 2.3173. The data indicates that the time for proper rest is partially met, but there is still room for improvement, since the mean is closer to the middle of the scale (3). Safety standards are always practical here at my business. The standard deviation is 0.8503 while the mean is 2.1257. The lower ranking for the practicality of safety laws indicates that certain employees may not find certain safety measures to be feasible. The larger standard deviation indicates that there are more different opinions on this statement. Despite a fast-paced work environment, safety requirements are followed at my firm. Standard Deviation: 0.6367, Mean: 2.0963. The low score for adhering to safety rules when pressed for time raises the possibility that compliance with safety standards may be compromised. Before recruiting, a health examination is conducted at my organization. Standard Deviation: 0.6446; Mean: 2.2510. Although pre-employment health tests are not very well-liked, their mean is a little bit higher than in other areas, which may indicate that they are administered more effectively.

My company regularly does post-employment health tests. 1.9893 as the mean; 0.6226 as the standard deviation. This has the lowest mean, which suggests that regular health exams after

hiring will require a significant amount of work. Total result: 2.1559 as the mean; Deviation Standard: 0.6786 Overall, the results indicate a moderate level of satisfaction with safety management, which is considerably above the midpoint and reflects the overall image of safety and health requirements.

The conclusion shows that even if there are safety and health laws, there are issues with their application and observance, especially when there is a pressing need for time. The lower grades for follow-up health testing after hire indicate a critical area for improvement. Enhancing these aspects of safety management may lead to better job performance by ensuring that employees feel safe and receive regular health examinations. The business needs to deal with these problems in order to keep a high standard of safety, which will enhance employee performance.

4.2.2. SPRM - Safety procedures and Risk Management

SPRM - Safety Procedures and Risk Management is a crucial aspect of workplace safety that involves the development and implementation of procedures to manage risks and ensure the safety of employees. It encompasses a range of activities, from identifying potential hazards to establishing protocols for emergency situations.

In the context of this study table 4.4 on the effect of safety management on job performance at the East Africa Bottling S.C. Addis Ababa plant, interpreting SPRM data can provide insights into how well risks are being managed and whether the safety procedures in place are effective.

Table 4.4: Descriptive Statistic for SPRM - Safety procedures and Risk Management

Statements	N	Mean	Std.Deviation
Workers are informed about changes in division of labor in my organization.	276	2.8311	0.80776
Probable risks and results are defined in my organization.	276	2.8574	0.71566
Written work procedures are compliant with practice in my organization.	276	2.7696	0.75852
Workers can easily recognize the relevant procedure of each task in my organization.	276	2.8133	0.72192
Workload is reasonably balanced in my organization.	276	2.8179	0.75097
Aggregate result	276	2.81786	0.75096

Source: Survey Result, (2024)

The SPRM (Safety Procedures and Risk Management) data about safety management and its effect on worker performance is shown in Table 4.4. Changes to the division of labor within my organization are communicated to the workforce. Standard deviation: 0.80776; mean: 2.8311. This implies that there is a modest degree of communication about labor division changes, but the standard deviation is somewhat significant, suggesting that employees' levels of awareness vary.

In my organization, results and probable hazards are specified. There is a 2.8574 mean and a 0.71566 standard deviation. Although there is still much room for improvement, the definition and communication of risks and results seem to be regarded marginally better than changes in the division of work.

My organization's documented work practices comply with standard operating procedures. Average: 2.7696 Deviation Standard: 0.75852 The fact that the mean score is closer to the midpoint suggests that there may be a discrepancy between documented methods and actual practice. The standard deviation indicates that employees' experiences differ from one another.

Workers in my business are able to quickly identify the appropriate method for every given assignment. Standard Deviation: 0.72192; Mean: 2.8133. Although employees perceive identifying pertinent procedures to be quite straightforward, there is still substantial potential for improvement, as indicated by the score.

My organization has a well balanced workload. Standard Deviation: 0.75097; Mean: 2.8179 Similar to process recognition, workload balance is regarded as having some degree of balance, but there may also be instances of imbalance that have an impact on performance. Total outcome: Standard Deviation: 0.75096; Mean: 2.81786. With a mean score that is not far from the middle, the general view of safety protocols and risk management is moderate. The standard deviation suggests that employee perspectives are not all that similar.

The findings show that although safety procedures and risk management are well-established, there is room for improvement in all areas. For example, improving labor division change communication, coordinating written procedures with practice, streamlining risk information, and guaranteeing workload balance could all improve job performance by fostering a more secure and reliable work environment.

4.2.3. FAST - Frist Aid Support and Training

FAST - First Aid Support and Training is an essential part of workplace safety management, focusing on providing employees with the knowledge and skills to respond to health emergencies. This training typically includes how to perform cardiopulmonary resuscitation (CPR), use automated external defibrillators (AEDs), and administer basic first aid.

In the context of this study on the East Africa Bottling S.C. Addis Ababa plant, interpreting FAST data can provide insights into the effectiveness of first aid training and its impact on job performance. This shown on table 4.5 below.

Table 4.5: Descriptive Statistic for FAST - First Aid Support and Training

Statements	N	Mean	Std.Deviation
Emergency treatment is available in case of accident in my organization.	276	2.3613	0.70945
Workers are trained against health hazards in my organization.	276	2.4524	0.65474
Workers are provided with health and hygiene training in my organization.	276	2.3552	0.65141
Workers are provided with first aid training in my organization.	276	2.3856	0.71096
Aggregate result	276	2.3886	0.68164

Source: Survey Result, (2024)

At the East Africa Bottling S.C. Addis Ababa facility, Table 4.5 deduces the FAST - First Aid Support and Training statistics about safety management and its influence on work performance: In the event of an accident, emergency care is provided by my organization. Standard Deviation: 0.70945; Mean: 2.3613 The availability of emergency care gets a mean score that suggests there is a great deal of space for improvement even while some safeguards are in place. A variance in employee views is shown by the standard deviation.

In my business, employees get health risks awareness training. Average: 2.4524 Deviation Standard: 0.65474 Although emergency treatment availability is thought to be slightly better than health hazard training, the mean score nonetheless points to the need for improved training initiatives.

In my business, employees get health and hygiene training. Average: 2.3552 Deviation Standard: 0.65141 Employees may believe more might be done in this area as health and hygiene training is scored similarly to emergency care.

In my business, first aid training is given to employees. Average: 2.3856 Deviation Standard: 0.71096 The mean score for first aid training indicates a modest level of provision, while the standard deviation indicates a range of employee experiences.

Total outcome: Average: 2.3886 Deviation Standard: 0.68164 Given that the FAST average is nearly at the middle, it appears that workers view first aid instruction and support as average. A variety of viewpoints is shown by the standard deviation, which may be a reflection of inconsistent training or accessibility.

The result implies that there is a foundational level of first aid support and training in place, but there is considerable potential for improvement. Enhancing the quality and consistency of first aid training, ensuring that emergency treatment is readily available, and improving health and hygiene training could contribute to a safer work environment. This, in turn, could have a positive impact on job performance by reducing the number and severity of accidents and ensuring that employees are well-prepared to handle health emergencies.

4.2.4. OSS - Organizational Safety Support

Organizational safety support refers to the extent to which an organization values and supports the safety and well-being of its employees. It encompasses various aspects, including policies, practices, and resources provided by the organization to promote safety. Table 4.5 below shows how employees perceive strong organizational safety support, it positively influences their commitment to the organization and their overall job performance.

Table 4.6: Descriptive Statistic for Organizational safety support

Statements	N	Mean	Std.Deviation
Adequate timely medical treatment provided in my workplace.	276	2.4223	0.59151
Sufficient time is granted for a worker can be recovered.	276	2.435	0.54408
Adequate damages are paid in case of injury.	276	2.4872	0.57401
Occupational safety regulation is followed in my organization.	276	2.3906	0.57451
Aggregate result	276	2.4338	0.57103

Source: Survey Result, (2024)

The data from OSS - Organizational Safety Support is inferred in Table 4.6 with respect to safety management and how it affects worker performance. My place of employment offers prompt and adequate medical care. Standard Deviation: 0.59151; Mean: 2.4223. This suggests that there is room for improvement in guaranteeing rapid medical response since employees see the provision of timely medical treatment as modest.

An employee is given enough time to heal. Standard Deviation: 0.54408; Mean: 2.435 Although there may still be differences in employee experiences, the considerably higher mean score here indicates that recuperation time is generally appropriate.

Sufficient compensation is given in the event of harm. Standard Deviation: 0.57401; Mean: 2.4872 In comparison to other areas, compensation for injuries appears to be viewed as slightly more acceptable; yet, as the mean score demonstrates, there is room for improvement.

In my organization, occupational safety regulations are adhered to. Average: 2.3906 Deviation Standard: 0.57451 The assertion that receives the lowest rating is compliance with safety standards; this might indicate that safety measures need to be better communicated and enforced.

The overall outcome shows Standard Deviation: 0.57103; Mean: 2.4338. A moderate amount of organizational safety support is indicated by the OSS overall mean, which is at the midway. The workforce's perspectives vary to some extent, as indicated by the standard deviation.

The results suggest that although while organizational safety support is generally well-established, there is still much space for development in all domains. By making the workplace safer, measures including enhancing the promptness and quality of medical care, making sure that workers have enough time to recuperate, paying just compensation for accidents, and boosting compliance with safety rules may all contribute to improved job performance. By addressing these issues, the business may develop a stronger safety culture.

4.2.5. OHP - Occupational Hazard Prevention

OHP - Occupational Hazard Prevention is a key element of workplace safety management, focusing on the proactive measures taken to identify and mitigate potential hazards that could lead to accidents or injuries at work. It involves a systematic approach to recognizing, evaluating, and controlling physical, chemical, biological, and ergonomic risks.

In the context of this study on the East Africa Bottling S.C. Addis Ababa plant, interpreting OHP table 4.7 can provide insights into how well the organization is preventing occupational hazards and the subsequent impact on job performance.

Table 4.7: Descriptive Statistic for OHP - Occupational Hazard Prevention

Statements	N	Mean	Std.Deviation
Filed Workers use safety equipment (glasses, helmets, boots, gloves, masks, etc.) in my company.	276	2.0055	0.81461
Only those specifically assigned workers with proper safety equipment have access to serious/likely hazardous places in my company.	276	2.0698	1.08398
Deficiencies/mistakes revealed during internal audits for safety & health are monitored/ removed.	276	1.8319	0.78721
There is appropriate lay-out with sufficient lighting in my workplace	276	2.3596	0.61787
Appropriate waste disposal is underway in my workplace	276	2.2226	0.62722
Aggregate result	276	2.0979	0.78619

Source: Survey Result, (2024)

The OHP - Occupational Hazard Prevention data is taken from the questionnaire and is shown in Table 4.7. In my firm, field workers wear protective gear such as masks, boots, gloves, helmets, and glasses. Standard Deviation: 0.81461, Mean: 2.0055. There has to be a major increase in compliance with safety equipment usage, as indicated by the mean score, which indicates that the use of safety equipment is seen as being somewhat above the lower end of the scale.

Serious/likely dangerous areas in my organization are only accessible by staff who have been explicitly allocated and who are equipped with the appropriate safety gear. Average: 2.0698 1.08398 is the standard deviation. This item had the biggest standard deviation and a slightly higher mean than the others, indicating a broad variety of opinions on access control to dangerous places. This might point to inconsistent policy enforcement.

Errors and deficiencies found during internal safety and health audits are tracked down and corrected. Standard Deviation: 0.78721; Mean: 1.8319 The lowest mean score denotes a serious worry about the oversight and correction of health and safety issues found during internal audits.

My workspace has a suitable layout and enough illumination. Standard Deviation: 0.61787; Mean: 2.3596 With the highest mean score of any item, it appears that workplace lighting and layout are seen more favorably than other safety features, albeit there is still opportunity for improvement.

In my workplace, proper garbage disposal is in progress. Standard Deviation: 0.62722; Mean: 2.2226 Like other sectors, the score points to a moderate assessment of trash disposal techniques,

but it also emphasizes the need for improved management.

Mean of the aggregate result: 2.0979 Deviation Standard: 0.78619 Because of the low overall mean score for OHP, workers often believe that workplace safety precautions are insufficient.

The outcome highlights a number of occupational hazard prevention issues that need to be addressed. The low aggregate mean score raises the possibility that workers might not feel completely safe from workplace risks, which could have a detrimental effect on output. By addressing these issues and enhancing the use of safety equipment, access control to hazardous places, audit findings reaction, and waste disposal procedures, the safety environment may be improved, which may lead to an improvement in job performance. It is imperative that the company takes these results seriously and puts these findings into effect by strengthening its OHP procedures.

4.2.6. JP – Job Performance

Understanding the impact of safety management on job performance (JP) is crucial, especially in industries where safety is paramount. The research indicates that effective safety management practices can lead to improved job performance by reducing accidents, enhancing working conditions, and increasing employee motivation.

The study at the East Africa Bottling S.C. Addis Ababa Plant, it might consider examining factors such as safety consciousness, safety climate, and leadership roles in safety management. These elements have been found to mediate the relationship between safety management practices and job performance. Table 4.8 below look at how safety management practices influence these aspects of JP.

Table 4.8: Descriptive Statistic for Job Performance

Statements	N	Mean	Std.Deviation
I am satisfied with health and safety programs of the company	276	2.6739	0.75075
I am happy with the works I am assigned.	276	2.0191	0.77477
Employee satisfaction level is high in the company	276	2.2157	0.90178
Customers are satisfied with the products they offer	276	2.287	0.85744
No. of projects has increased substantially every year	276	2.132	0.89051
Aggregate result	276	2.2655	0.83505

Source: Survey Result, (2024)

The JP - Job Performance data about safety management and job performance was shown in

Table 4.8. The company's health and safety initiatives have my satisfaction. Average: 2.6739 0.75075 is the standard deviation. The opinion of the company's health and safety initiatives is generally favorable, despite the fact that there is always space for improvement, as indicated by the statement with the highest mean.

With the tasks I have been given, I am content. Standard Deviation: 0.77477; Mean: 2.0191. Lower levels of satisfaction with assigned work may indicate that workers believe their talents and abilities are not being properly exploited or that their job assignments should better reflect their interests.

The organization has a high degree of employee satisfaction. Average: 2.2157 0.90178 is the standard deviation. While the large standard deviation suggests a broad variety of sentiments regarding this, the moderate mean score here demonstrates variability in employee experiences.

Consumers are happy with the goods they provide. Average: 2.287 0.85744 is the standard deviation. The company's brand and performance heavily depend on the modest level of customer satisfaction that it receives. The standard deviation indicates divergent viewpoints, which might be a reflection of different client experiences.

The number of initiatives has grown yearly by a significant amount. Standard Deviation: 0.89051, Mean: 2.132 There is a poor impression of project growth, which suggests concerns over the company's growth and prospects for the future. Total results show Standard Deviation: 0.83505, Mean: 2.2655. Although there are certain aspects of organizational performance that are strong, there are also clear areas that might use development, as indicated by the moderate overall mean.

According to the statistics, workers have a generally low degree of satisfaction with their job assignments and the health and safety programs, although they have a somewhat good opinion of the programs altogether. Attention should also be paid to the perception of corporate development and customer happiness. A better company outcome and improved job performance might result from improving these organizational performance factors. It is imperative that the organization attends to these issues and endeavors to establish a more fulfilling workplace, enhance client interactions, and promote expansion and advancement.

4.3.Inferential Statistics

Inferential statistics uses sample measurements of the subject and make generalization about the larger population. It comprises correlation analysis among variables; assumption of data test for

their suitability or fitness to the intended regression analysis model (namely normality, collinearity, linearity and homoscedasticity); and finally, multi-regression analysis in terms of model summary, ANOVA test and beta coefficients determination are conducted to address the objectives of this study.

4.3.1. Correlation Analysis

This study employs correlation analysis, which investigates the strength of the relationships between the studied variables. Correlations are perhaps the most basic and most useful measure of association between two or more variables (Festinger, 2005). Pearson correlation is one of known methods for correlation analysis was used to provide evidence of convergent validity. The correlation coefficients reveal direction of relationships (either positive or negative) and the intensity of the relationship (-1.0 + 1.0). To interpret the direction and strengths of relationships between variables, the guidelines suggested by Field (2005) were followed. His classification of the correlation coefficient (r) refers 0.1– 0.29 is weak; 0.3 – 0.49 is moderate; and $\geq$ 0.5 is strong.

Table 4:.9 Correlation matrixes between variables.

Correlations

		SAHR	OSS	FAST	SPRM	OHP	JP
Safety and Health Rules (SAHR)	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	276					
Organizational Safety Support (OSS)	Pearson Correlation	.393**	1				
	Sig. (2-tailed) N	0.002					
	N	276	276				
First Aid Support and Training (FAST)	Pearson Correlation	.629**	.408**	1			
	AQ Sig. (2-tailed)	0	0.001				
	N	276	276	276			
Safety procedures & Risk Management (SPRM)	Pearson Correlation	.550**	.350**	.543**	1		
	OI Sig. (2-tailed)	0	0.007	0			
	N	276	276	276	276		
Occupational Hazard Prevention (OHP)	Pearson Correlation	.479**	.391**	.471**	.386**	1	
	OS Sig. (2-tailed)	0	0.002	0	0.003		
	N	276	276	276	276	276	
Job Performance (JP)	Pearson Correlation	.536**	.321*	0.254	0.202	0.149	1
	TMS Sig. (2-tailed)	0	0.013	0.052	0.126	0.26	
	N	276	276	276	276	276	276
*Correlation is significant at the 0.05 level (2-tailed) ** Correlation is significant at the 0.01							
Source: Survey Result, (2024)							

Table 4.9 above illustrates the correlation matrix between five dimensions safety management

variables and their impact on Job Performance (JP) at the East Africa Bottling S.C. Addis Ababa plant. Correlation Coefficients analysis:

FAST (First Aid Support and Training): Displays a positive correlation with PERF, though it is weaker compared to SAHR and OSS. This implies that while first aid support and training are important, they may have a less direct impact on performance.

SPRM (Safety Procedures & Risk Management): Also has a positive correlation with PERF, but it is relatively weak, indicating that procedures and risk management practices have a role in performance, but other factors may be more influential.

OHP (Occupational Hazard Prevention): Shows the weakest correlation with JP, suggesting that while hazard prevention is essential for safety, its direct impact on organizational performance may be less pronounced compared to other safety management aspects.

Overall, all five independent variables are positively correlated with organizational performance, with SAHR and OSS showing the strongest relationships. This indicates that comprehensive safety management practices that include clear rules and organizational support are likely to have a more significant impact on improving job performance within the organization

When we concluded the above result the correlation matrix suggests that safety management variables are interrelated and collectively contribute to organizational performance. The strongest links are between safety rules and first aid training, as well as between safety rules and organizational performance. To enhance job performance, efforts should focus on strengthening safety and health rules and ensuring robust organizational support for safety initiatives.

4.3.2. Assumption Tests for Multiple Linear Regression Model

Multiple regression is an analysis that assesses whether one or more predictive variables explain the dependent (criterion) variable. The regression assumptions are correlation (linear relationship), Multicollinearity, Multivariate Normality and Homoscedasticity.

4.3.2.1.Multicollinearity

Multicollinearity refers to the situation in which the independent/predictor variables are highly correlated (Robert, 2006). Hill et al., (2003) explain that economic variables may move together in systematic ways when the data are the result of an uncontrolled experiment. Such variables are believed to have problems with collinearity or multi-collinearity rises, it will complicate the interpretation of the variables because it is more difficult to confirm the effect of any single variable, owing to their interrelationship (Hair et al., 1996). According to Hill et al. (2003),

multi-collinearity is not a violation of the assumptions of regression, but it may cause serious difficulties.

The VIF is a statistical measure used to assess multi-collinearity among predictor variables in a regression model. Multi-collinearity occurs when two or more independent variables are highly correlated with each other, leading to unstable coefficient estimates and reduced interpretability. Specifically, the VIF quantifies how much the variance of the estimated regression coefficient for particular predictor variable increases due to the presence of other correlated predictors. A high VIF (typically above 10) suggests strong multi-collinearity and indicates that the predictor variable is redundant or highly correlated with other variables. In table 4.10 the VIF values are all close to 1, which is excellent. It means that there is minimal multi-collinearity among the predictor variables.

Tolerance is the reciprocal of the VIF. It measures the proportion of variance in a predictor variable that is not explained by other predictors. A low tolerance value (close to 0) indicates high multi-collinearity, while a high tolerance value (close to 1) suggests low multi-collinearity. In table 4.10 below, the tolerance values are all reasonably high (above 0.8), which is desirable. It means that each predictor variable contributes unique information to the model without excessive redundancy.

Table 4.10: Collinearity Diagnostics

Model		Collinearity Statistics	
		Tolerance	VIF
1	SAHR - Safety and Health Rules	0.933	1.072
	SPRM - Safety procedures and Risk	0.929	1.076
	FAST - First Aid Support and Training	0.976	1.025
	OSS - Organizational Safety Support	0.839	1.192
	OHP - Occupational Hazard Prevention	0.789	1.268

a. Dependent Variable: Organizational Performance

Source: Survey Result, (2024)

The collinearity diagnostics on table 4.10 above provided from the study on the effect of safety management on job performance at the East Africa Bottling S.C. Addis Ababa plant shows the Tolerance and Variance Inflation Factor (VIF) for each of the independent variables.

In this study, it shows that the collinearity statistics analysis of variance inflation factors (VIF) value ranges from 1.025 to 1.268 and Tolerance value ranging with .789 to .976 indicated that

therewas no collinearity problem. This could be taken as a confirmation that there were no multi-collinearity problems to proceed for regression analysis. That means when the independent variables in this model were highly related with one another, they would have been mainly measuring the same thing or convey essentially the same information.

All the VIF values are well below 10, and the tolerance levels are not close to 0, which suggests that there is no concerning level of multicollinearity among the study independent variables. This means that each independent variable provides unique information to the model that is not overly redundant with the information provided by the other variables.

In conclusion, based on the collinearity diagnostics provided, model does not appear to suffer from multicollinearity issues, and the independent variables can be considered to provide distinct contributions to predicting organizational performance.

4.3.2.2.Linearity Test

A linear relationship (or linear association) is a statistical term used to describe a straight-line relationship between two variables. i.e., llinearity means that the predictor variables in the regression have a straight-line relationship with the outcome variable. Linear relationships can be expressed either in a graphical format where the variable and the constant are connected via a straight line or in a mathematical format where the independent variable is multiplied by the slope coefficient, added by a constant, which determines the dependent variable. Figure 4.1 illustrates that the observed data have positive linear patter parallel with a straight line (expected values). Thus, it can be concluded that the independent variables has direct relationship with dependent variable.

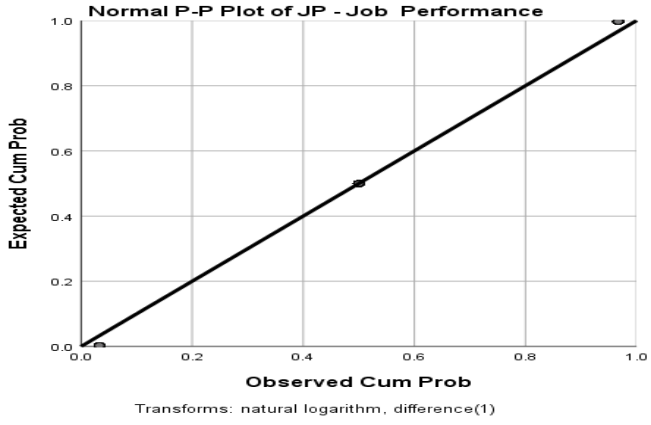


Figure 4.1 Normality Test
Source: Survey result, 2024

Figure 4.1 indicates the P-P Plot in the context of the study on the effect of safety management on job performance. Diagonal Line: The line represents what the data points would follow if the distribution of the data was perfectly normal. Data Points: Each point on the plot represents an observed cumulative probability from your dataset.

From above figure 4.1 the points closely follow the diagonal line, this suggests that the data is normally distributed. If the points deviate significantly from the line, this indicates that the data may not be normally distributed.

In the context of this study, the P-P Plot shows that the job performance data closely follows the diagonal line, it would suggest that the job performance data is normally distributed. This is important for certain statistical tests and regression models that assume normality of the data.

4.3.2.3.Normality of the Error Term Distribution

In terms of this assumption, a check for normality of the error term is conducted by a visual examination of the normal probability plots of the residuals. Malhotra et al. (2007) propose that normal probability plots are often conducted as an informal means of assessing the non-normality of a set of data. According to Hair et al. (1998), the plots are different from residuals plots in that the standardized residuals are compared with the normal distribution. In general, the normal distribution makes a straight diagonal line, and the plotted residuals are compared with the diagonal (Hair et al., 1998). If a distribution is normal, the residual line will closely follow the diagonal (Hair et al., 1998). Malhotra et al. (2007) explain that the "correlation coefficient" will be near unity if the data fall nearly on a straight line. The "correlation coefficient" will become smaller if the plot is curved. The normality probability plots were plotted to assess normality. The P-P plots were approximately a straight line instead of a curve.

Accordingly, the residuals were deemed to have a reasonably normal distribution, as suggested by Hair et al. (1998). The skewness value provides an indication of the symmetry of the distribution while kurtosis provides information about the peakedness of the distribution. A positive skewness value indicates right (positive) skew while a negative value indicates left (negative) skew. The higher the absolute value is the greater the skew (Tabachnick & Fidell, 2001).

Table 4.11 Skewness and Kurtosis

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std.Error	Statistic	Std.Error
SAHR - Safety and Health Rules	276	.046	.147	.516	.292
SPRM - Safety procedures and Risk Management	276	-7.266	.147	51.162	.292
FAST - Frist Aid Support and Training	276	-.929	.147	-.147	.292
OSS - Organizational Safety Support	276	.007	.147	1.040	.292
OHP - Occupational Hazard Prevention	276	-.800	.147	-1.370	.292
JP - Job Performance	276	1.095	.147	-.807	.292
Valid N (listwise)	276				

Source: Survey result, 2024

Table 4.11 illustrates the skewness and kurtosis statistics for your study on the effect of safety management on job performance at the East Africa Bottling S.C. Addis Ababa plant:

SAHR - Safety and Health Rules: Skewness = .046, which is very close to 0, indicating a fairly symmetrical distribution of responses. Kurtosis = .516, which is slightly positive, indicating a leptokurtic distribution with slightly heavier tails than a normal distribution.

SPRM - Safety procedures and Risk Management: Skewness = -7.266, which is highly negative, indicating a distribution that is skewed to the left. Kurtosis = 51.162, which is extremely high, indicating a very sharp peak and heavy tails.

FAST - First Aid Support and Training: Skewness = -.929, which is moderately negative, suggesting a left-skewed distribution. Kurtosis = -.147, which is close to 0, suggesting a distribution similar to normal in terms of its peak.

OSS - Organizational Safety Support: Skewness = .007, again very close to 0, indicating a symmetrical distribution. Kurtosis = 1.040, which is slightly positive, indicating a leptokurtic distribution.

OHP - Occupational Hazard Prevention: Skewness = -.800, which is moderately negative, indicating a left-skewed distribution. Kurtosis = -1.370, which is negative, indicating a

platykurtic distribution with lighter tails than a normal distribution.

JP – Job Performance: Skewness = 1.095, which is moderately positive, indicating a right-skewed distribution. Kurtosis = -.807, which is negative, suggesting a platykurtic distribution.

Insinuation for the Study: The SPRM variable stands out with extreme skewness and kurtosis values, which could be due to outliers or errors in data entry. This variable's data may not meet the assumptions of normality required for some parametric tests. The JP variable's positive skewness indicates that there are more low scores in job performance than high scores. The OHP and FAST variables' negative skewness suggests that most respondents rated these aspects of safety management relatively high. The kurtosis values for SAHR, OSS, and especially SPRM suggest that the responses have more outliers than would be expected in a normal distribution.

In conclusion, the skewness and kurtosis statistics indicate that some variables in the study have distributions that deviate from normality. This could affect the choice of statistical tests and the interpretation of results. It may be necessary to apply data transformation techniques or use non-parametric tests if the data does not meet the assumptions required for parametric testing.

4.3.2.4.Hmoscedasticity Test

Breusch and Pagan (1979) was developed a measuring scale that used to test for homogeneity in a linear regression model. The residuals' tendency to cluster together at certain values and spread out at others, a property known as homoscedasticity, defines whether or not they are equally distributed. Model errors with an unknown but limited variance that is constant across all predictor variable levels are analyzed using the assumption of homogeneity of variance. This assumption is supported by a visual examination of a plot of the standardized residuals based on the standardized projected value of the regression.

Plotting ZRESID versus ZPRED allowed for the homoscedasticity of the distribution to be confirmed; the graph's appearance was examined to make sure it resembled an evenly spaced collection of random dots around zero. This implies that at every point, the residuals' dispersion along any predictor variable should be about constant. The variability in the scores for the independent variables needs to be comparable across all dependent variable values. A rectangle should run the whole length of the scatter plot. This suggests that the residual distribution is normal. Garson, (2012) explains homoscedasticity suggests that the dependent variable has an equal level of variability for each of the values of the independent variables. The graph below illustrates that the homoscedasticity assumption was job performance (JP).

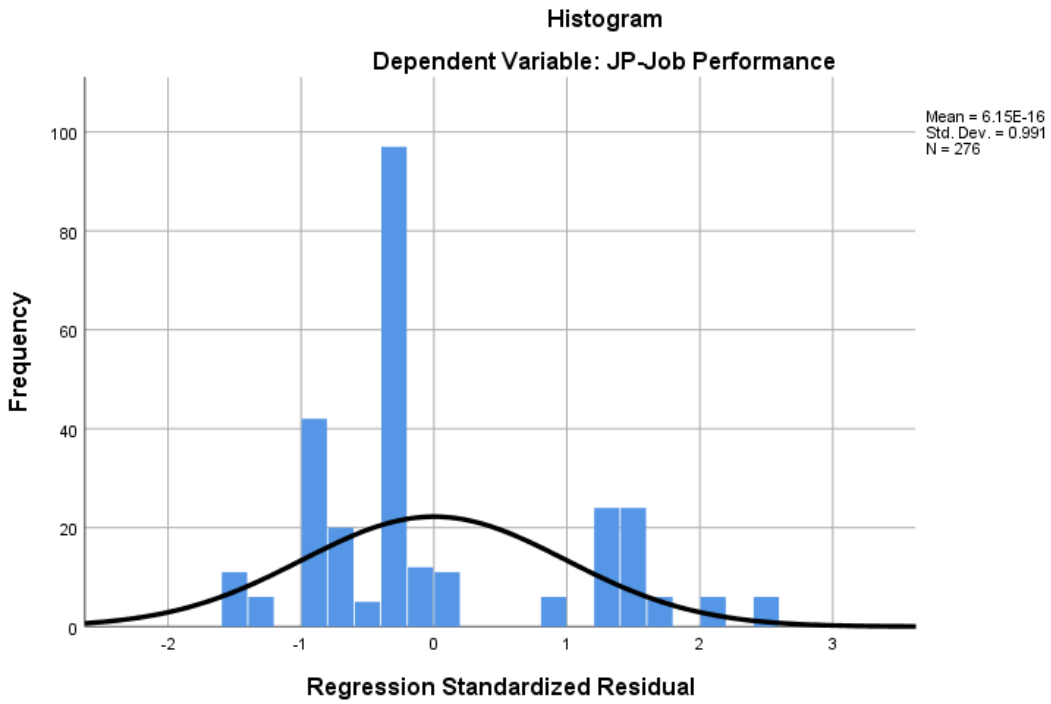


Figure 4.2: Histogram residual

Source: Survey result, (2024)

Figure 4.2. indicates the histogram of the regression standardized residuals for Job performance (JP) in relation to safety management at the East Africa Bottling S.C. Addis Ababa plant shows the following:

Central Tendency: The mean of the residuals is essentially zero (Mean = 6.15E-16), which is expected in a well-fitting regression model. This indicates that, on average, the predicted values from the model are very close to the actual observed values.

Spread of Residuals: The standard deviation of the residuals is close to 1 (Std. Dev. = 0.991), suggesting that the residuals are spread out in a manner consistent with a standard normal distribution.

Shape of Distribution: The histogram shows that the residuals are mostly concentrated around the center (zero), with frequencies tapering off as the residuals move away from the center. This pattern is typical of a normal distribution, as indicated by the superimposed normal curve.

Sample Size: The analysis is based on a sample size of 276, which is generally considered sufficient for regression analysis.

The histogram imply that the residuals are approximately normally distributed, which is an

important assumption for linear regression analysis. This implies that the variability in job performance (Jp) is being captured by the model to a satisfactory extent.

The absence of any systematic pattern or extreme skewness in the histogram indicates that there are no major violations of the assumptions of homoscedasticity (equal variance of residuals) and independence of residuals.

The normal distribution of residuals supports the validity of the regression model used to assess the impact of safety management on job performance. It suggests that the model's predictions are unbiased and that the estimated coefficients can be trusted to represent the true relationship between safety management and job performance.

In summary, the histogram of residuals indicates a good fit of the regression model to the data, allowing for meaningful interpretation of the relationship between safety management practices and job performance at the East Africa Bottling S.C. Addis Ababa plant.

For a more formal assessment of homoscedasticity, we can also look at figure 4.3 the scatter plot of standardized residuals against predicted values. A random scatter of points without a discernible pattern typically indicates homoscedasticity.

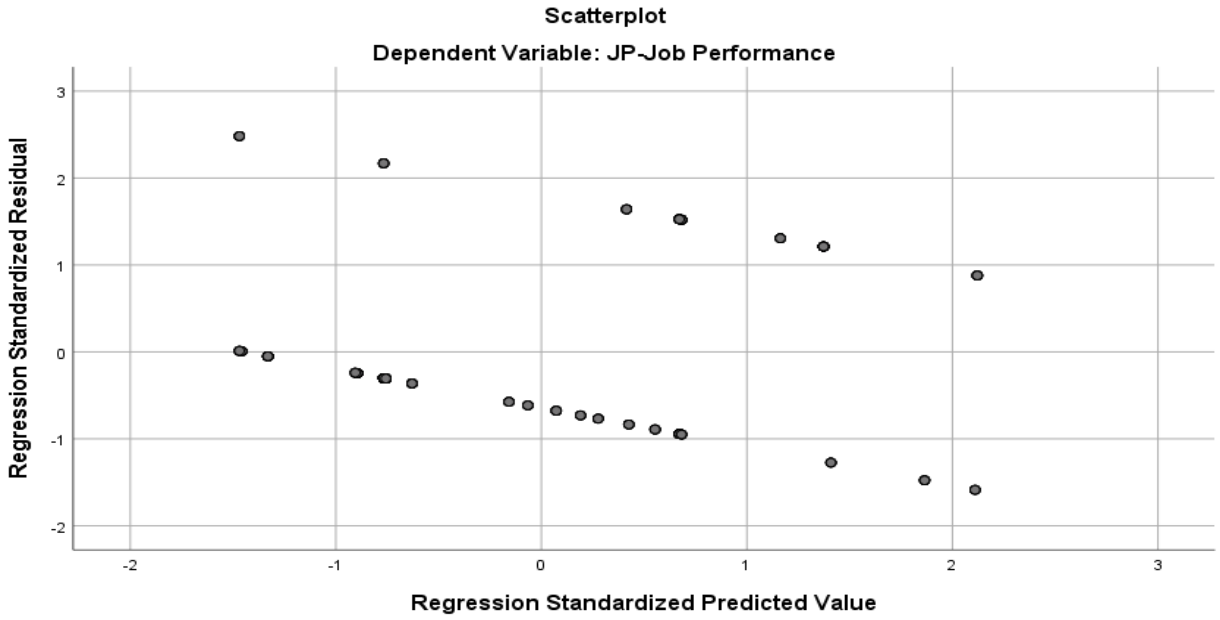


Figure 4.3: scatter plot

Source: Survey result, (2024)

4.3.3. Regression Analysis

Linear regression estimates the coefficients of the linear equation, involving one or more independent variables that best predicts the value of the dependent variable. Multiple regression analysis in this research was used to model the value of the construct variable (JP – Job Performance) based on its linear relationship to two or more predictors (safety and health rules, organizational and safety support, first-aid support and training, safety procedure and risk management, occupational hazard prevention). This means, the overall operational performance is an aggregation of the occupational safety and health dimensions. In order to indicate the impact that each predictor has on the construct variable, the unstandardized coefficients are checked.

Table 4.12: Model Summary

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.815 [a]	.664	.287	.000
a. Predictors: (Constant), OHP - Occupational Hazard Prevention, FAST - Frist Aid Support and Training, SAHR - Safety and Health Rules, SPRM - Safety procedures and Risk Management, OSS - Organizational Safety Support				
b. Dependent Variable: JP – Job l Performance				

Source: Survey result, (2024)

The model summary above 4.12 indicates a multiple regression analysis where several predictors are used to estimate Job performance (JP). Here's a breakdown of the summary:

R (Multiple Correlation Coefficient): Represents the correlation between the observed and predicted values of the dependent variable. An R value of .815 suggests a strong positive correlation.

R Square (Coefficient of Determination): Indicates the proportion of variance in the dependent variable that can be explained by the independent variables. Here, .664 means that approximately 66.4% of the variance in organizational performance can be explained by the model.

Adjusted R Square: Adjusts the R Square for the number of predictors in the model. An adjusted R Square of .287 is quite lower than the R Square, which may suggest that some predictors do not contribute significantly to the model.

Std. Error of the Estimate: Reflects the average distance that the observed values fall from the regression line. A value of .000 suggests no error, which is unusual and might indicate an issue with the data or the model.

In summary, the regression model indicates that safety management has a measurable impact on job performance at the East Africa Bottling S.C. Addis Ababa plant.

Table 4.13 :ANOVA Analysis

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.58	5	2.916	10.977	.000[b]
	Residual	16.224	270	0.060		
	Total	30.804	275			
a. Dependent Variable: JP - Job Performance						
b. Predictors: (Constant), OHP - Occupational Hazard Prevention, FAST - First Aid Support and Training, SAHR - Safety and Health Rules, SPRM - Safety procedures and Risk Management, OSS - Organizational Safety Support						

The ANOVA tables 4.12’ve provided is part of a regression analysis that examines the impact of safety management on job performance at the East Africa bottling S.C Addis Ababa plant.

Sum of Squares: 14.58, which is the variation explained by the model. df (Degrees of Freedom): 5, indicating the number of predictors. Mean Square: 2.916, which is the average amount of variation explained per predictor.

F (F-statistic): 10.977, which is the ratio of the mean square due to regression to the mean square of the residuals. It indicates the overall model fit. Sig. (Significance): .000, suggesting the model is statistically significant. Residual Row: Represents the variation not explained by the model. Sum of Squares: 16.224, unexplained variation. df: 270, the number of observations minus the number of predictors minus one. Mean Square: 0.060, the average unexplained variation.

Total Row: The total variation in the dependent variable. Sum of Squares: 30.804. df: 275, the total number of observations minus one.

The F-statistic of 10.977 and the significance level of .000 indicate that the regression model is statistically significant, meaning that the safety management factors collectively have a significant effect on job performance.

The results suggest that the safety management practices at the East Africa bottling S.C Addis Ababa plant is significant and that the safety management factors (OHP, FAST, SAHR, SPRM, OSS) collectively have a significant effect on job performance. However, it's important to look at the individual predictors' significance and the adjusted R-square to understand the model's predictive power and which factors contribute the most.

Table 4.14: Estimated Regression Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std.Error	Beta		
1	(Constant)	6.635	0.556		11.944	0
	SAHR - Safety and Health Rules	0.284	0.047	0.244	5.164	0.008
	SPRM - Safety procedures and Risk Management	0.414	0.071	0.2	8.625	0.003
	FAST - First Aid Support and Training	0.211	0.04	0.44	5.275	0
	OSS - Organizational Safety Support	0.312	0.053	0.409	3.545	0
	OHP - Occupational Hazard Prevention	0.208	0.059	0.139	5.333	0.001
a. Dependent Variable: JP - Job Performance						

Source: Survey result,(2024)

The Estimated Regression Coefficients table provides detailed information about the individual predictors' contribution to the model predicting job performance (JP) based on safety management factors shown table 4.13 above analysis of the coefficients as follow.

Unstandardized Coefficients (B): Reflect the change in the dependent variable for a one-unit change in the predictor variable.

Standardized Coefficients (Beta): Represent the strength of the impact of each predictor variable on the dependent variable. t: The t-statistic tests whether the coefficient is significantly different from zero. Sig. (Significance): The p-value indicates the probability that the coefficient is different from zero by chance. Here's what the coefficients suggest for each predictor: (Constant): The constant term (6.635) represents the expected value of JP when all predictors are zero. The high t-value (11.944) and a significance level of 0 indicate it's statistically significant.

SAHR - Safety and Health Rules: B: 0.284, suggesting that a one-unit increase in SAHR is associated with a 0.284 increase in JP, Beta: 0.244, indicating a moderate positive impact on JP, t: 5.164, showing the coefficient is significantly different from zero and Sig.: 0.008, indicating statistical significance.

SPRM - Safety procedures and Risk Management: B: 0.414, a one-unit increase in SPRM is associated with a 0.414 increase in JP, Beta: 0.2, a moderate positive impact on JP, t: 8.625, significantly different from zero and Sig.: 0.003, statistically significant.

FAST - First Aid Support and Training: B: 0.211, a one-unit increase in FAST is associated with a 0.211 increase in JP, Beta: 0.44, indicating a strong positive impact on JP, t: 5.275, significantly different from zero and Sig.: 0, statistically significant.

OSS - Organizational Safety Support: B: 0.312, a one-unit increase in OSS is associated with a 0.312 increase in JP, Beta: 0.409, a strong positive impact on JP, t: 3.545, significantly different from zero and Sig.: 0, statistically significant.

OHP - Occupational Hazard Prevention: B: 0.208, a one-unit increase in OHP is associated with a 0.208 increase in JP, Beta: 0.139, a moderate positive impact on JP, t: 5.333, significantly different from zero and Sig.: 0.001, statistically significant.

Overall, the coefficients indicate that all the safety management factors have a positive effect on job performance, with FAST and OSS showing the strongest standardized impact. The significance levels suggest that these relationships are unlikely to be due to chance. This analysis can help the East Africa bottling S.C Addis Ababa plant understand which safety management practices have the most substantial impact on employee performance and guide future improvements in their safety protocols.

The last output in the analysis of the multiple regression models represents the output for the beta coefficients of each occupational safety and health dimension. The regression equation for this research is presented below.

$$\mathbf{JP = \beta 0 + \beta_1 SAHR + \beta_2 OSS + \beta_3 FAST + \beta_4 SPRM + \beta_5 OHP + e}$$

Based on multiple linear regression analysis on Table 4.13, substituting the results in the modelyields:

$$JP = 6.635 + .284\ SAHR + .414\ OSS + .211\ FAST + .312\ SPRM + .208\ OHP + e$$

Where: JP -Job Performance, OHP -Occupational Hazard Prevention,SPRM-Safety Procedures and Risk Management, OSS -Organizational Safety Support, FAST –First Aid Support and

Training, SAHR -Safety and Health Rules β_0- Constant; $\beta_{1,2,3,4,5}$ Coefficients of Predictors

Every occupational safety and health factor has a favorable and substantial impact on the total performance of the business, according to the regression study. First aid support and training, organizational hazard prevention (B =.202, and B =.208), and safety procedure & risk management (B =.312) and safety & health rules (B =.284) have lower contributions to the prediction model than organizational safety support (B =.414), which is comparatively the strongest predictor of organizational performance. For each unit change in that particular predictor, this projected change in the organizational performance. Every occupational safety and health factor has a favorable and substantial impact on the total performance of the business, according to the regression study. First aid support and training, organizational hazard prevention (B =.202, and B =.208), and safety procedure & risk management (B =.312) and safety & health rules (B =.284) have lower contributions to the prediction model than organizational safety support (B =.414), which is comparatively the strongest predictor of organizational performance. For each unit change in that particular predictor, this projected change in the organizational performance.

4.4.Discussion

A brief explanation of the major findings regarding dimensions of occupational safety and health management practices (safety and health rules, organizational safety support, first-aid support and training, safety procedures and risk management, and occupational hazard prevention) and their respective effects on job performance is illustrated as follows:

The first specific objective was to examine the effect of safety and health rules on organizational performance. The results indicate that safety and health rules are good predictors of organizational performance (B =.284, p<.05). The finding is supported by a study by Christian (2019), which explains that health and safety policies and procedures are part of an efficient health and safety management framework. The company's health and safety policies demonstrate the management's willingness to provide the workers with a healthy and safe workplace, which results in enhanced employee and organizational performance at large.

The second objective was also to examine the effect of organizational safety support on organizational performance. The results revealed that organizational safety support had relatively the highest positive and statistically significant effect on organizational performance (B =.414, p<.05). According to Hallowell (2013), firms with a good working climate often increase the

potential of their workers to higher levels. Consequently, investment in safety support and interventions may not offset economic returns yet create value as non-monetary benefits, such as decreased worker turnovers, decreased social costs, and social injustice associated with injuries.

The third objective was to analyze the effect of first-aid support and training on organizational performance. The findings explained that first-aid support and training are predictors of organizational performance (B =.211, p<.05). The significant effect of the organization's first-aid support and training practices on organizational performance is backed by Michael's (2015) statement that intangible benefits build an attitude in the minds of employees, aka perceived organizational support. Perceived organizational support is positively related to outcomes like affective commitment.

The fourth objective was to examine the effect of safety procedures and risk management on organizational performance. The results of the finding showed that safety procedures and risk management had a positive and significant effect on the performance of the companies (B =.312, p<.05), it was found to be the strongest predictor, followed by organizational safety support. This finding is consistent with Herein (2010), whose study also confirms that practices applied to increase the safety climate can result in more committed and loyal employees. Creating a perception of a safe climate by emphasizing organizational policies and practices has a positive effect on employee commitment, and employees consider an organization's commitment to safety as a kind of perceived organizational support.

Finally, the fifth objective was to examine the effect of organizational hazard prevention practices on job performance. It was found that hazard prevention had a positive and statistically significant effect on the performance of an organization (B =.208, p<.05). This finding is in contradiction with the findings of Danish (2013), which argue that occupational hazard prevention was detected to have no significant effect on organizational commitment. A reason for this may be the fact that the employees perceive this variable as the hygiene factor (like management policy, working conditions, wage levels, level of happiness in private life, etc.) might not be adequately provided; thus, it becomes impossible to keep workers in the organization and wouldn't motivate personnel but only prevent dissatisfaction. However, a lack of hygiene factors will disrupt motivation (Eren, 2003).

4.5.Discussion of Interview Results

One important factor in determining productivity and well-being at work is the effect of safety

management on job performance. Managers' and HR managers' summarized interview findings can provide insights based on industry best practices and research:

The outcome of the interview demonstrates that any firm has to have efficient safety management practices. They must to be thorough, covering every possible risk and guaranteeing that staff members are equipped with the necessary skills to handle it. An organization such as East Africa Bottling S.C. ought to have a strong safety management system that encompasses routine risk assessments, emergency preparedness, safety training, and a culture that encourages safety consciousness. Total result: Mean: 2.81786; Standard Deviation: 0.75096. The general perception of safety procedures and risk management is moderate, with a mean score that is not too far from the center. The standard deviation indicates a lack of consistency in the viewpoints held by employees.

The results demonstrate that even when risk management and safety protocols are well-established, there is always space for improvement. Enhancing written procedures with practice, ensuring workload balance, simplifying risk information, and enhancing labor division change communication are a few examples of how to create a more dependable and safe work environment that will enhance job performance.

The results of the interview indicate that staff members are usually given training on risk management techniques, first aid support, adherence to safety and health regulations, and occupational hazard prevention. Organizational support is also crucial for safety initiatives, which might involve setting up a reporting system for dangers, supplying the required equipment, and making sure that safety regulations are followed. Overall average: 2.3599 Standard Deviation: 0.7172. It appears that individuals feel safety management has a positive effect on job performance because the mean score for all categories combined is greater than 4. The higher overall standard deviation suggests that there appears to be more variability when considering all the factors together. These results show that although most people have a favorable opinion of safety management, there is still space for improvement in a few areas, most notably first aid support and training. The replies for organizational performance and occupational hazard prevention are consistent, indicating that the existing safety management system is strong in both areas. Improving regions that received lower ratings may result in even improved work output.

There exists a substantial association between safety management and employee performance,

which was the subject of the other worry. Increased productivity, lower absenteeism, and increased employee morale may all result from a safe workplace. Workers are more likely to be engaged at work and dedicated to the objectives of the company when they feel safe. Every year, the quantity of efforts has increased significantly. Mean: 2.132, Standard Deviation: 0.89051 The negative perception of project growth raises questions about the company's potential growth and future prospects. The total findings are as follows: Mean: 2.2655, Standard Deviation: 0.83505. The modest overall mean of organizational performance indicates that while certain parts are good, there are still obvious areas that might use improvement.

The data show that although employees have a generally positive assessment of the health and safety programs, they are largely dissatisfied with their job assignments and the programs themselves. The perception of consumer satisfaction and business progress should also be taken into consideration. Improving these organizational performance variables may lead to greater business outcomes and enhanced job performance. The company must address these concerns and make an effort to create a more satisfying work environment, improve customer relations, and foster growth and development.

Based on the knowledge that a strong safety culture not only safeguards workers but also improves overall business operations by raising productivity and lowering expenses related to workplace accidents, the researcher came to an end to the interview. Concentrating on these areas might result in notable advancements in staff performance and safety management for East Africa Bottling S.C.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1. Summary of Major Findings

The main objective of this the study was to examine the effect of safety management on job performance of employees in East Africa bottling S.C Addis Ababa plant. The researcher was used descriptive and explanatory research design to investigate cause-and-effect relationships mixed research strategy approaches was used. In this study, convenience non-probability sampling technique was used for the fact that bottling companies are hesitant to disclose their staff's employment history.

Employee perceptions of safety management are usually good, according to a research conducted at the East Africa Bottling S.C. Addis Ababa Plant. Safety and health regulations and organizational safety support received excellent marks. First Aid Support and Training (FAST), on the other hand, has to improve since it obtained the lowest mean score.

The study reveals that employees generally have a positive perception of safety management, with a mean score of 2.8179 for SPRM and 0.7510 for FAST. However, there are areas for improvement, particularly in first aid support and training. Organizational safety support is viewed positively, similar to safety and health rules, with a mean score above 4. Occupational hazard prevention is the most well-managed sector, with a mean score of 2.0979, suggesting agreement among staff. Employee perceptions of the organization's performance are generally positive, with a mean score of more than 4. The average for all categories is 2.3599, suggesting that safety management has a favorable impact on job performance. However, there is greater variability in the total standard deviation. The consistency in responses for occupational hazard prevention and organizational performance suggests that these are strengths of the current safety management system. Enhancing areas with lower scores could potentially lead to even better job performance.

According to the study, strengthening communication on changes in labor division, matching safety protocols with practice, and improving first aid training might all result in improved work performance. Furthermore, it is critical to address issues regarding the application and compliance with safety and health laws, especially in instances where time is of the essence.

The study examines the impact of occupational safety and health management practices on job

performance. Safety and health rules are found to good predictors of organizational performance, as they demonstrate management's commitment to providing a healthy and safe workplace. Organizational safety support has the highest positive and statistically significant effect on performance, as it increases worker potential and reduces social costs. First-aid support and training also predict organizational performance, as they build an attitude in employees' minds, forming perceived organizational support. Safety procedures and risk management have the strongest positive effect on performance, followed by organizational safety support. Lastly, occupational hazard prevention practices have a positive and statistically significant effect on job performance, contradicting previous research that suggests occupational hazard prevention has no significant effect on organizational commitment. This could be due to employees recognizing the importance of hygiene factors like management policy, working conditions, wage levels, and personal happiness in private life.

The study's overall findings emphasize how crucial it is to have effective safety management procedures, including well-defined policies and solid organizational backing, in order to enhance worker performance. It is advised that lower scoring areas be addressed in order to further improve organizational performance, as well as creating a safer work environment**.**

5.2. Conclusion

The study reveals that employees generally perceive safety management positively, with a mean score above 4. However, there are concerns about their applicability and compliance, particularly in situations where time is of the essence. Improving safety management and ensuring workers feel safe and have frequent health checks could improve work performance.

There is still room for improvement across all areas, such as communication about labor division changes, aligning written procedures with practice, making risk information more clear, and ensuring workload balance. The FAST data suggests that while some measures are in place, there is significant room for improvement in emergency treatment availability, training against health hazards, health and hygiene training, and first aid training.

The OSS data shows that employees perceive the provision of timely medical treatment as moderate, suggesting room for improvement in ensuring prompt medical response. The overall mean score for OHP is low, suggesting that employees may not feel fully protected against workplace hazards. Addressing these concerns by improving safety equipment usage, access control to hazardous areas, response to audit findings, and waste disposal practices could

enhance the safety environment and potentially improve job performance.

Job Performance data shows that employees are generally satisfied with the company's health and safety programs but feel less satisfied with their work assignments and overall satisfaction. The correlation matrix between five dimensions of safety management variables and their impact on Job Performance (JP) at the East Africa Bottling S.C. Addis Ababa plant reveals that all five independent variables are positively correlated with organizational performance, with SAHR and OSS showing the strongest relationships.

The study concluded that a strong safety culture not only protects employees but also enhances overall business operations by increasing productivity and reducing costs associated with workplace accidents. For East Africa Bottling S.C., focusing on these areas could lead to significant improvements in both safety management and employee performance.

In conclusion, the findings from the study at East Africa Bottling S.C. reveal that Safety and Health Rules (SAHR) are highly valued by employees and strongly correlate with job performance, indicating that clear and effective safety rules are instrumental in enhancing organizational performance.

5.3. Recommendations

The study on the effect of safety management on job performance at East Africa Bottling S.C. Addis Ababa Plant, the following recommendations are proposed:

5.3.1. Recommendations for Action

Based on the regression analysis of the safety management factors at East Africa Bottling S.C. Addis Ababa Plant, here are some recommendations for action:

1) Enhance Safety and Health Rules (SAHR) that has a moderate positive impact on job performance. To improve this, consider a campaign to raise awareness about the importance of safety rules and their direct link to performance.
2) Refine Safety Procedures and Risk Management (SPRM) has a moderate positive impact, it is recommended that review and update safety procedures to ensure they are in line with the latest industry standards and best practices.
3) Prioritize First Aid Support and Training (FAST) given the strong positive impact on job performance, it’s crucial to invest in comprehensive first aid training programs. This could include regular drills, updated training materials, and certification for employees.
4) Strengthen Organizational Safety Support (OSS) that shows a strong positive impact on

job performance. Enhance this by ensuring that safety support is not only available but also actively promoted by management. This could involve regular safety briefings and an open-door policy for safety concerns.

5) Improve Occupational Hazard Prevention (OHP) OHP has the weakest correlation with job performance. Address this by conducting a thorough review of current hazard prevention measures and implementing additional controls where necessary.

5.3.2. Further Research Recommendations

For further study on the effects of safety management on job performance at East Africa Bottling S.C. Addis Ababa Plant, the following recommendations are suggested

1) **Longitudinal Study**: Conduct a long-term study to observe the effects of implemented safety measures on job performance over time. This could help in understanding the sustainability of improvements and the long-term impact on employee well-being and productivity.
2) **Comparative Analysis:** Compare the safety management practices and job performance metrics with other plants or similar industries. This can provide insights into best practices and areas where the Addis Ababa Plant excels or needs improvement.
3) **Employee Engagement:** Investigate the role of employee engagement in the effectiveness of safety management. Understanding how employees interact with safety protocols and their level of involvement can offer deeper insights into potential areas for improvement.
4) **Safety Culture Assessment**: Delve into the aspects of safety culture that contribute to job performance. Assessing the beliefs, values, and attitudes towards safety can reveal underlying factors that influence the success of safety management practices.

By focusing on these areas, future research can build a more robust understanding of the dynamics between safety management and job performance, leading to more effective strategies and improved outcomes for the organization.

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Annex

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

DEPARTMENT OF BUSINESS ADMINISTRATION

Dear respondent,

The purpose of the questionnaire is to collect data for research on **"the effect of safety management on job performance: the case of East Africa Bottling S.C Addis Ababa Plant".** The research is designed to identify safety management on job performance. The research outcomes are important for academic research. Your genuine and honest response is very important for the success of the research and the researcher would like to thank you for your cooperation in advance.

Note: for any clarification or question please don't hesitate to contact the researcher through the following address. Name *Gurmesa Getachew* mobile phone *+251910457908*

General Instruction:

1. No need to write your name
2. Your response confidentiality is maintained
3. Instruction for the questionnaire is given at the beginning of the questions

Thank You for your cooperation!

Part I: General background information

1) Gender A. Male ☐ B. Female ☐

2) Age A. < 25 years ☐ B. 25 to 30 years ☐ C. 31 - 55 years ☐
D. 36 to 40 years ☐ E. 41 to 45 years ☐ F. Over 55 years ☐

3) Educational level A. 8th Complete ☐ B. 10th Complete ☐ C. 12th Complete ☐
D. Certificate ☐ E. Level ☐ B. BA ☐ C. MBA ☐

4) Experience A. 1 to 5 years ☐ B. 6- 10 years ☐
C 11 -15 years ☐ D. Over 16 years ☐

5) Department in which you recently worked
A. Supply and Facility Department ☐ B. Factory Operations Department ☐
C. Manufacturing Department ☐ D. Finance Department ☐
E. HRM Department ☐ F. If other specify_____

ECTION II: Basic Research Questions

The following statements address how employee performance is affected by safety management in the context of East Africa Bottling S.C Addis Ababa Plant. Kindly check (√) the boxes indicating your agreement or disagreement with each statement. The possibilities range from 1 (strongly disagree) to 5 (strongly agree). A number between 1 and 5 designates each option.

Note: N= Neutral, A= Agree, SA= Strongly Agree, DA= Disagree, SD= Strongly Disagree

S.no	Dimensions	SA	A	N	D	SD
	SAHR - Safety and Health Rules	5	4	3	2	1
1	Timing for sufficient rest is underway in my organization.					
2	Safety rules are always practical in my organization.					
3	Safety rules are followed in my organization even under tight schedule.					
4	Health examination is made in my organization prior to the employment.					
5	Periodical health examinations are undertaken in my organization afterhiring					
\	**SPRM - Safety procedures and Risk Management**					
1	Workers are informed about changes in division of labor in myorganization.					
2	Probable risks and results are defined in my organization.					
3	Written work procedures are compliant with practice in my organization.					
4	Workers can easily recognize the relevant procedure of each task in myorganization.					
5	Workload is reasonably balanced in my organization.					
	FAST - Frist Aid Support and Training					
1	Emergency treatment is available in case of accident in my organization.					
2	Workers are trained against health hazards in my organization.					
3	Workers are provided with health and hygiene training in my organization.					
4	Workers are provided with first aid training in my organization.					
	OSS - Organizational Safety Support					

1	Adequate timely medical treatment provided in my workplace.					
2	Sufficient time is granted for a worker can be recovered.					
3	Adequate damages are paid in case of injury.					
4	Occupational safety regulation is followed in my organization.					
	OHP - Occupational Hazard Prevention					
1	Filed Workers use safety equipment (glasses, helmets, boots, gloves,masks, etc.) in my company.					
2	Only those specifically assigned workers with proper safety equipmenthave access to serious/likely hazardous places in my company.					
3	Deficiencies/mistakes revealed during internal audits for safety & healthare monitored/ removed.					
4	There is appropriate lay-out with sufficient lighting in my workplace					
5	Appropriate waste disposal is underway in my workplace					
	JP - Job Performance					
1	I am satisfied with health and safety programs of the company					
2	I am happy with the works I am assigned.					
3	Employee satisfaction level is high in the company					
4	Customers are satisfied with the products they offer					
5	No. of projects has increased substantially every year					

Thank you for your cooperation.

Interview Question

An interview guide for how employee performance is affected by safety management in the context of East Africa Bottling S.C Addis Ababa Plant. For HR Manager, Managers

1) What do you think of the company's safety management procedures?
2) What kind of safety management do you provide your staff?
3) What is your opinion of the company's safety management and employee performance?
4) What changes would you recommend to the company's entire safety management procedure?