Addis Ababa University

College of Business and Economics

School of Commerce

The Effect of Occupational Health and Safety Practice on Employee Commitment: A case study of the Soft Drinks Industry in Ethiopia, MOHA and EABSC

By: Hiwot Asamenew Aragaw GSR/5255/13

This dissertation is submitted for the partial fulfillment of the requirements for the degree of Masters of Project Management School of Commerce, Addis Ababa University, Ethiopia

Advisor: Worku Mekonnen (PHD)

09 June 2022, Addis Ababa

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STATEMENT OF DECLARATION

I hereby declare that this work entitled: **"The Effect of Occupational Health and Safety on Employee Commitment: A case study of the Soft Drinks Industry in Ethiopia"** thesis is my original work. It is an outcome of my own effort and all sources of materials used for the study, to the best of my knowledge, have been duly acknowledged. I have produced it independently except for the guidance and suggestion of my research advisor.

This study has not been submitted for any degree in this university or any other university. It is offered for the partial fulfillment of Degree of Masters in Project Management.

Declared by: Hiwot Asamenew Aragaw

Signature: _____

Date: _____

STATEMENT OF CERTIFICATION

Addis Ababa University, School of Commerce

Postgraduate Program

This is to certify that the thesis prepared by Hiwot Asamenew Aragaw, entitled: "The Effect of Occupational Health and Safety on Employee Commitment: A case study of the Soft Drinks Industry in Ethiopia is submitted in partial fulfillment of the requirements for the Degree of Masters of Project Management and complies with the regulations of the university and meets the accepted standard with respect to originality and quality.

_____

Worku Mekonnen (PHD)

Research project advisor

Date_____

APPROVAL PAGE

Addis Ababa University School of Commerce

Project Management Department

The Effect of Occupational Health and Safety on Employee Commitment: A case study of the Soft Drinks Industry in Ethiopia

BY: HIWOT ASAMENEW ARAGAW: GSR/5255/13

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LIST OF ABBREVIATIONS

WHO: World Health Organization

ILO: International Labor Organization

OHS: Occupational Health and Safety

SRM: Safety and Risk Management

SAHR: Safety and Health Regulations

FAST: First-Aid and Safety Training

OHP: Occupational Hazard Prevention

OSS: Organizational Safety Support

EC: Employee Commitment

ABSTRACT

Workers are a key resource and core strength of any organization and their well-being is very crucial because when their wellbeing is threatened everything become secondary. The purpose of this study is to examine the effects of occupational health and safety on the employees' commitment in the case of the soft drinks industry in Ethiopia. The study was conducted on MOHA Soft Drinks Industry and East Africa Bottling SC that have dominated the Soft Drink Industry in Ethiopia. Out of 4,000 target population a sample size of 120 respondents was considered using (Cohen, 1977) statistical formula. The study adopted descriptive and explanatory research design and used quantitative analysis. The results of the descriptive analysis shows that the level of employee commitment in the in the industry is more than average with a mean value of 3.3958 and the status of the occupational health and safety practice is also more than average that was measured in terms of the five OHS dimensions: Safety and Risk Management (SRM), Safety and Health Rules (SAHR), Frist Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) and Organizational Safety Support (OSS) with a mean value of 3.5333, 3.1274, 3.4032, 3.3864 and 3.2667 respectively.

The findings of the study correlation analysis revealed that there is significant and positive association between Occupational Health and safety and Employee commitment and the regression analysis verified that the effect of Occupational Health and Safety on Employee commitment is significant and positive.

The study concludes that workers who feel healthy and safe in the performing their duties, develop emotional attachment and have a sense of obligation to their organization and which highly affects their level of commitment. Every organization dream about success, thus, management should pay attention to the overall well-being of their employees and exceling their employee's commitment which have many favorable outcome towards success.

Key words: — Occupational Health and Safety, Employee Commitment

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CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Employees are the prime resource and core strength in any industry. Organizations often give attention to technology, clients and structures than employees. The fact is, it is the employees who drive the technology and structures and meet the clients need which rule the overall organizational success (Vanishree, Nanjundes & Swamy, 2017). Organizations need to pay attention on how to take a good care of their employees and excel their overall well-being to keep them satisfied and committed which brings a lot of favorable out comes. Immense number of studies has explored the power of employees on the success of any organization. Ensuring complete wellbeing of workers and exceling their commitment to the overall vision for the business governs the direction towards success (Naseem, scheikh & Malik, 2011). Occupational health and Safety deals with complete physical, mental and social well-being of workers from elements that may negatively affect their health and safety and aims to provide physical and psychological services suitable and support for workers. It is a multidisciplinary concept which is closely connected to physiology, psychology, economics, technology, medicine (Leka, Griffiths & Cox, 2003) and summarizes the mental, emotional and physical well-being of the worker in relation to the conduct of his work. (Shanewaz & Tarik, 2020). Occupational health and safety can be measured in terms of the five dimensions which are: Safety and Risk Management (SRM), Safety and Health Rules (SAHR), Frist Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) and Organizational Safety Support (OSS), (Sulong & Hassan, 2020). On the other hand, employee commitment can be defined as the degree to which the employee feels devoted to their organization (Akintayo, 2010). It reflects the extent to which employees identify with the organization and is committed to its goals. Generally, Meyer and Allen's (1991) model describes the commitment of employees in terms of affective commitment, normative commitment and continuance commitment and many scholars have generally supported this model. (Dunham, Grube, & Castenada, 1994; Hackett, Bycio, & Hausdorf, 1994; Meyer, Allen, & Gellatly, 1990; Chen & Francesco, 2003). Poor working settings can jeopardize the health and safety of workers and leads to low psychological & physiological state of employees which creates low capability and commitment, performance and productivity. Workers who feel healthy

and safe in the performance of their duties, develop emotional attachment and have a sense of obligation to their organization and are most likely committed to the organization. Creating healthy and safe workplace and matching employees and their work environments is one of the most important management issues because the workplace condition affect employees and their commitment and impact the success that every organization looking for.

1.2. The industry Soft drink industry in Ethiopia

The Soft Drinks Industries in Ethiopia is dominated by East Africa Bottling SC (EABSC) and MOHA Soft Drinks Industry (MOHASDI). The soft drinks industry market is dominated by these two companies. East Africa Bottling S.C is a subsidiary of Coca-Cola Beverages Africa (CCBA) which has sustainably operated beverages business in Ethiopia for the last 60 years. The first coca cola bottler in Ethiopia was established in 1959 privately shared Business Company in Addis Ababa located at lideta Sub city around. East Africa. EABC at the business expand a branch was established in Dire Dawa in 1965. The two plants were nationalized in 1975 when government system changed from monarchy to socialism and run as a public company until 1996. On 19th may 1999 a joint venture agreement was signed between EABC founder's shareholders and Coca-Cola SABCO (CCS) or Coca Cola South Africa Bottling Company. EABSC has around 2000 permanent employees in its four plants located in Addis Ababa, Dire Dawa, Bahr Dar cities and currently it is establishing a big plant located at Sebeta. The company produce and sell different kinds of nonalcoholic beverages like Coca-Cola, Fanta, Sprite, Fanta Ananas, Fanta Tonic and Crystal water. Recently EABC bought Ambo Mineral Water and expanded its market share.

Moha Soft Drinks Industry S.C was acquired from the Ethiopian Privatization Agency and established on May 15, 1996. It is a sole franchiser for bottling Pepsi products and autonomously manufacture of Kool water products and Tossa Minch Natural Spring Water. The industry has eight manufacturing plants which has similar plant setting. Three of the plants that holds majority of MOHA's employees and are located in Addis Ababa. MOHA has plants at Hawassa, Mekele, Dessie, Bure and Gonder.

Every manufacturing workplace is exposed to high degree of occupational health and safety concerns due to the nature of the work. These concerns or hazards covers, situation,

environments that potential cause injury, ill health, or damages to workers and their working environment. OHS hazards can be framed in Physical, Chemical, Ergonomic, Biological, Psychological and Environmental hazards. These hazards can be witnessed in manufacturing industries in varies intensities. In the soft drink industry; physical, ergonomic and psychological hazards are major concerns. This means safety is a mandatory and a significant issue and OHS basically provides a standard procedure and system which are set in legislation with the aim to eliminate and reduce these health and safety hazards at workplace (Amirah et al, 2013).

1.3. Statement of the problem

As most of developing countries, Ethiopia has come to Occupational health and safety late with difficult challenges for OHS knowledge and practices. Still Ethiopia suffers from lack of effective enforcement, monitoring and control system of OHS practice in work places and provision of the necessary information, statistical data and reports related to this issue. Regardless the shortcomings, OHS continues to be utmost importance and is an integral part of employment. An International Labor Organization (ILO) report indicates that annually, occupational accidents and work-related diseases cause 2.3 million fatalities, out of which over 350,000 are caused by occupational accidents and close to 2 million by work related diseases (ILO, 2022). As a result, approximately 5,500 people die every day due to these causes: occupational accidents kill nearly a 1,000 people every day and work-related diseases provoke the death of approximately 4,500 more individuals. There were also over 313 million non-fatal occupational accidents requiring at least four days of absence from work and occupational accidents provoke injury or ill health for approximately 860,000 people every day. (Jilcha and Kitaw, 2016) stated in their article that mortality in Sub-Saharan Africa rate due to poor occupational health and safety knowledge and practice is 21/100,000 employees and the accident rate is 16,000/100,000 workers; about 54,000 mortals and about 42 million worker's accident happen each year which results in minus 3 days of absenteeism of each employee from work. The article also stated that in Ethiopia, the fatal accident rate is 5,596 per year with mortality rate of 21.5/100000 workers and an accident rate of 16,426/100000 workers. The above information shows the seriousness of occupational health and safety in work place and the accident is greater in Ethiopia compare to other Sub-Saharan countries.

However, despite these startling global figures on occupational health and safety and there are very few studies conducted on OHS and the effect of OHS on EC globally, subjected to limitations like using single model approach for both OHS and EC, uncertainty of data gathering timing due to vulnerable state of the industry under the study and geographical context difference. Moreover, very few number of research studies conducted on occupational health and safety in Ethiopia and none has been conducted on the effect on OHS on EC in Ethiopia to the best knowledge of the researcher.

Therefore, this paper conducted to examine the effect of occupational health and safety practice in terms Safety and Risk Management (SRM), Safety and Health Rules (SAHR), Frist Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) and Organizational Safety Support (OSS) on Employee commitment (EC).

1.4. Research Questions

1. What is the status of the Occupational Health and Safety practice in soft drinks industry in Ethiopia?
2. What is level of Employee Commitment in in soft drinks industry in Ethiopia?
3. What is the effect of Occupational Health and Safety Practice on Employee commitment?

1.5. Research objectives

1.5.1. General objectives

The general objective of this study is to examine the effect of Occupational Health and Safety practice on Employee Commitment.

1.5.2. Specific objective

- To assess the status of Occupational Health and Safety practice in soft drink industry in Ethiopia.
- To assess level of Employee Commitment in soft drink industry in Ethiopia.
- To examine the effect of Occupational Health and Safety practice on Employee commitment in soft drink industry in Ethiopia.

1.6. Significance of the Study

- For literature: It expands body of knowledge in the area and useful for literature and future studies.
- For practice: The study also provides factual information on the status of OHS and Level of EC in the industry in meaningful way. Management team can learn where they are and plan the future for excellence in the areas.
- From the study finding, the management team at MOHA and EABSC can learn a new perspective of looking at OHS and its effect on their employee's commitment. This helps management for decision making on the related issues and consideration of OHS when they work on besting commitment of their employees.
- Other practitioners can learn the importance occupational health and safety and its effect on employee commitment.

1.7. Scope of the Study

- The study focus on the effect of occupational health and safety on employee commitment and uses quantitative analysis to see the relationship of the two variables.
- This study is limited to workers at MOHA Soft Drinks industry and East Africa Bottling SC that dominated the soft drinks industry in Ethiopia.
- The scope of the study will be limited to investigating the status of occupational health and safety practice and level employee commitment at EABSC and MOHA in Addis Ababa plants that holds more than 75% of the organization's employees.
- Moreover, the research uses Statistical Package for the Social Sciences (SPSS) to analyze primary data collected by a questionnaire and generate descriptive, correlational and regression analysis outputs.

1.8. Limitation of the Study

- Data was collected only from employees of MOHA and EABSC and this affects the generalizability of the results to other organizations.
- There was a time limitation to consider the data collection from additional soft drinks companies that helps to increase the generalizability of the study.

1.9. Organization of the paper

This section provides an overview of the contents of the five chapters included in this thesis. The **first chapter** provides the background of the study, statement of the problem, the research questions, general and specific objectives of this research including the significance, scope and limitation of the study. This chapter states the basic idea of the study which is "The effect on Occupational health and safety on Employee commitment". The **Second chapter** discuss the relevant literature on the concept of Occupational Health and Safety and Employee Commitment and different aspects related to them. It also discusses how OHS is related to EC and methods for assessing status occupational health and safety practice and the level of Employee commitment. Based on the evidence, it provides proposed conceptual model and hypothesis for the study. The **third chapter** focus on research design and methodology, sampling technique, questionnaire distribution, reliability and validity of instrument and data analysis methods. The **fourth chapter** present the results of the study analysis and interpretation of the study. The necessary tables and figures are included here. The **last Chapter** includes the summary of findings, conclusion, recommendation based on the findings and for future studies.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

This chapter provides a general understanding of what occupational health and safety (OHS) and employee commitment (EC) are. It presents related literatures on the concepts, importance and dimensions considered under OHS and EC. It discusses how Occupational health and safety and Employee commitment are related and forwarded a conceptual frame work and hypothesis for the study.

2.1. Literature on Occupational Health and Safety

Health and Safety is a primary concern because when life is threatened everything becomes secondary. This has been clearly demonstrated for us in the last years through Covid 19 pandemic. Health and safety is unsettled issue in every workplace in varying intensities (Zaman, 2017). International Labor Organization (ILO) & World Health Organization (WHO) defined Occupational health and Safety as a branch of Public health and deals with all aspects of health and safety in the workplace and has strong focus on primary prevention of hazards. Its objective is to protect and progress the complete physical, mental and social well-being of workers from elements that may negatively affect their health and safety. It aims to provide physiological and psychological services suitable and support for the workers. OSH is a multidisciplinary concept which is closely connected to physiology, psychology, economics, technology and medicine (Leka, Griffiths & Cox, 2003) and concentrates on the promotion of safety, health, and welfare of people engaged in work or employment (Kwesi & Justice, 2016).

Health has been defined as a state of complete physical, mental and social well-being and not merely the absence of disease. Occupational health deals with state of the body and mind of people from illness resulting from the materials, processes or procedures used in the workplace, while occupational safety with the protection of people from physical and metal injury (Abddllah et al, 2009). Occupational health & safety captures the mental, emotional and physical well-being of the worker in relation to the conduct of his work and promotes compliance systems, safety processes, procedures, safety management and proper implementation of safety program (Shanewaz & Tarik, 2020). The overall wellbeing of workers in all occupations and protection from risks that averse to health and placing worker in an occupational environment adapted to his physiological and psychological capabilities and protective measures to restrict the

unexpected accidents and causalities in the workplace is important. Looking the views of scholars, it presupposes they all emphasized on the importance of good OHS practices, and outline the physical, mental disasters and legal and financial consequences it brings if it is not implemented effectively and assessed regularly. (Zonkon & Dawaon, 2011; Robson, Stephenson, Schulte & Amick, 2011; Laukkanen, 1999; Kaynak, Tuygun & Tamer, 2016; De Cieri & Lazarova, 2020).

The basic principles OSH can be set as ensuring all workers have right to be protected and foster decent conditions of labor (Okun, Guerin & Schulte, 2016). A secure and safe workplace is a fundamental right of the employees. As the International Labor Conference stated in 1984: (a) work should take place in a safe and healthy working environment; (b) conditions of work should be consistent with workers well-being and human dignity; (c) work should offer real possibilities for personal achievement, self fulfilment and service to society. (Berik and Rodgers, 2010) have stated that often when workers are unaware of their rights it can restrict their participation in unions and committees for fear of discrimination from their supervisors and result poor practice of OHS.

In accordance with the Ethiopian Labor Proclamation No. 1156/2019, every employee has the right to enjoy suitable measures of protection and safety & hygiene at work as the employer is required to take all necessary measures to safeguard the health & safety of workers. It is considered unlawful for an employer to require a worker to execute work, which is hazardous to his life. Employer must take appropriate measures to ensure that workers are properly instructed and notified about the risks and imminent danger related to their respective occupations and precautions necessary to avoid accidents and injury to health. Medical examination of newly employed workers and those engaged in hazardous work, at employer's expense, is necessary. It says, it is obligatory for an employer to establish occupational safety and health committee in the establishment according to the directive issued by the Minister. Employment accidents and occupational diseases must get registered and notified to the labor inspector. To keep workplace and its premises free from hazards related to health and safety of worker, employer must implement the directives issued by the appropriate authority in accordance with this proclamation.

Thus, any organization has a responsibility and legislative compliance of insuring health and safety of workers. Any manufacturing industry must ensure safe manufacturing operations, proper management of plant and substances, monitor and record health and safety issues, offer adequate facilities i.e. washrooms, shower place, toilets, lockers, washing facilities, dining areas, drinking water, first and training, consultation and assurance and commitment from management to a planned and continuous improvement health and safety approach where anyone entitled to have protection from any workplace risk, actively use the personal protective equipment (PPE), first aid facility and right to proactively reporting the hazard issue Kumar (2006) noted some additional measures including machines that automatically cut off power in an emergency provision of pressure plants, revolving machines, and lifts, hoists and cranes; safety measures during building construction or renovation; and preventative measures against dangerous fumes. (walters, Nichols & Cam) added that welfare officers are important should be appointed for effective OHS management.

2.2. Dimensions of Occupational Health and Safety

Different scholars used different dimensions of OHS to measure level of occupational health and safety practices in a given organizations or industry. (Zaman, 2017) measured OHS in terms of OHS planning, implementing, reviewing, improving health and safety and employee awareness of OSH, workplace culture and training analysis of work place health and safety. The questionnaire includes 81 close ended questions under seven constructs. (Hayes, Perander, Smecko, & Trask, 1998) proposed five frame works of assessing workplace health and safety as job safety, supervisors' safety practices, coworker safety practices, management commitment to safety and safety programs. Hayes et al work safety scale generally assesses employees' perceptions of OSH management at the workplace using 10 question under each five constructs with a total of 50 items. (Sulong, A.W. and Hassan, A., 2020) developed OHS measuring scale in five basic dimensions: Occupational Hazard Prevention (OHP), Safety and Risk Management (SRM), Organizational Safety Support (OSS), Frist Aid and Safety Training (FAST), and Safety and Health Rules (SAHR). There are 29 concise questions stated under the five fame works.

This study adopted the occupational health and safety measurement developed by (Sulong, A.W. and Hassan, A., 2020), because this OHS scale more recent and concise that includes health and safety matter within 29 questions categorized under five dimensions that are: Safety and Risk

Management (SRM), Safety and Health Rules (SAHR), Frist Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) and Organizational Safety Support (OSS).

2.2.1 Safety and Risk Management (SPRM)

Safety and risk management is a systematic administrative process that focus on health and safety matters. It ensures the necessary policies, process and procedures in relation to health and safety are in place and every worker are informed and knowledgeable about them. SRM aims to minimize the risks associated with health and safety hazards at our workplace and ensure that no one is injured or hurt by a hazard at work. (Christian et al., 2009; Margado, 2019).

2.2.2 Safety and Health Rules (SAHR)

Health and safety rules and regulations should be practical and reviewed regularly. SAHR emphasize on practicability of these rules and regulation, one by ensuring the required resource to perform a given task is balanced with the work break down and two that the rules are applicable and practical in the existing work setting.

2.2.3 Frist Aid and Safety Training (FAST)

Every work place should be equipped with the necessary first aid support and this support should be in place and available to all workers (Robnson, 2013). FAST also deals with in educating and training workers about emergency exists, emergency action steps, first aid, health and safety concerns and hygiene.

2.2.4 Occupational Hazard Prevention (OHP)

Occupational hazard prevention makes sure that all workers are equipped with the necessary personal protective equipment and workers are trained on how to use them. It audits regularly that there is quality & appropriate number of PPE available to workers, there is designated area for dining and garbage place, toilets, the safety of the working environment and the necessary safety cautions are in place.

2.2.5 Organizational Safety Support (OSS)

Organization safety support ensures there is sufficient treatment within appropriate time and the necessary compensation is sustained to workers who is injured. OSS also focus on making sure that confidentiality of workers medical records.

2.3. Workplace concerns in the Soft Drink Industry

Every manufacturing workplace is exposed to high degree of occupational health and safety concerns due to the nature of the work. These concerns or hazards covers, situation, environments that potential cause injury, ill health, or damages to workers and their working environment. OHS hazards can be framed in physical, chemical, ergonomic, biological, psychological and environmental hazards. These hazards can be witnessed in manufacturing industries in varies intensities. In the soft drink industry; physical, chemical, ergonomic and psychological hazards are major concerns. Physical hazards are circumstance that can cause harm with or without contact like slippery floors, trips and falling hazards, moving objects, electrical hazards, excessive noise, poor lighting, fire are examples of physical hazards. Chemical hazards caused by exposure to chemicals in the workplace that cause acute detrimental health effects. Gases, concentration mix, dusts, smokes. Ergonomic hazards injure the musculoskeletal system and the lower back or nerves of the hands/wrists, or bones surrounding the knees, resulting from poor design workstation, workflow, manual handling, repetitive movement or long seat. A psychological hazard is another concern in the industry which affects the mental and physical well-being of workers, including their ability to participate in a work environment among other people.

For the purpose of this study, the researcher visited both industries and observed the following positive of occupational health and safety practices in the organizations. Occupational health and safety program was included in the organization policy. The franchiser PepsiCo and Coca-Cola follow up the OHS exercised in the industries and arrange sudden site visits and auditing. There are 24/7 stand by first aid and medical team and vehicles available for worker. All workers are 100% medically insured. There is also health and safety representative appointed by top management who follow up the safety of workers, facilitate the provision of PPE and recording OHS incidents in the health and safety log. Most of the workers were wearing personal protective equipment's regardless the quality of the PPE. Special attention is given to provision of PPE to manufacturing and maintenance team. Injuries and accidents are recorded in the log located in the first aid center. All minor, moderate and catastrophic accidents and injuries are registered in this log. Even though the organizations are not willing to expose the detail

information on the OHS log, they said workers visit the center on daily basis for minor injuries and for moderate and catastrophic injuries rarely, all accidents and injuries are recorded.

2.4. Literatures on Employee Commitment

Employee commitment is one of the job-related attitudes that has received extensive attention from researchers around the globe. (Miller, 2003) said employee commitment is an individual's attitude and attachment toward his or her organization. (Saks, 2006) defines employee commitment as the "state in which an employee identifies with a particular organization and its goals, and wishes to maintain membership in the organization." Employees' commitment reflects the extent to which employees identify with the organization and is committed to its goals. Employee commitment is one the top management concerns because high levels of commitment lead to several favorable organizational outcomes. Meyer and Allen (1997) approach states that employee commitment is a multidimensional component, it includes affective commitment, continuance commitment, and normative commitment. Chinomona et al (2015) research shows that a higher level of employee satisfaction is associated with a high employee commitment and increase worker's productivity. Meyer and Allen (1984) initially proposed that a distinction be made between affective and continuance commitment, with affective commitment denoting an emotional attachment to, identification with, and involvement in the organization and continuance commitment denoting the perceived costs associated with leaving the organization. Allen and Meyer (1990) later suggested a third distinguishable component of commitment, normative commitment, which reflects a perceived obligation to remain in the organization. Many scholars (Dunham, Grube, & Castenada, 1994; Hackett, Bycio, & Hausdorf, 1994; Meyer, Allen, & Gellatly, 1990) have generally supported this model. In summary Affective commitment is caused by affinity with your job, sense of belongingness and fulfillment, enjoyment, culture of organization. Normative commitment comes from moral obligation, loyalty that comes from chance given, feel heard & valued and Continuance commitment caused by lack of alternatives, consequence of leaving, loss of friendship, status, pay, benefits by leaving. When two or even all three of these factors are relevant for a large percentage of your staff, you will likely be in a good position with regard to having plenty of motivation within your team that leads to success.

2.5. How is Occupational Health and Safety related to Employee Commitment?

The match between employees and their work environments is one of the most widely researched topics in organizational behavior (Kristof-Brown, Zimmerman, & Johnson, 2005; Schneider, 2001) in different perspectives because the workplace condition affect employees in many ways. World Health Organization (1995) defines occupational health and safety as "the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the protection of workers in their employment from risks resulting from factors averse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities. It means occupational health and safety encapsulates the mental, emotional and physical well-being of the worker in relation to the conduct of his work and aimed at increasing worker's capacity to deliver better because workplace. (Tong, Rasiah, Tong, and Lai, 2015) said employee commitment, organizational citizenship behavior and employee productivity largely depend on the degree to which employee feel safe and secured to work the study confirms that poor or absence of health and safety management decreases employee productivity. Nielsen (2017) stated competitive strength, productivity and competence of a worker is affected by his/her wellbeing to a great extent and (Sgroi, 2015), said feeling safe, secured & glee makes people more productive at work, investing in health promotion is a way of increasing employee performance and reducing absenteeism. Moreover, if a worker is not physical, mental and emotional health and doesn't get safety, the worker can be physical or mental absent from their work. It also affects employees' attitudes and intentions toward their organization and adverse effect to employee commitment. (Anggoro et al. 2010) show that there is a significant influence of safety and health on the employee performance; the study confirms that poor or absence of health and safety management decreases employee productivity. (Kaynak, Tuygun & Tamer, 2016) stated in their study conclusion that safety procedures and risk management, safety and health rules, and organizational safety support had indirect effects on job performance of the employees. Occupational health and safety is mulit-disciplinary and may affect many aspect of an organization. In the contemporary world there is high competitive business environment, every organization is facing a problem of attracting and retaining, competent human resource. To top up their game in this competitive business world organizations should provide healthy and safe workplace that also affects the commitment of their employees.

Therefore, the above discussion shows that there is a relation between the occupational health and safety and employee commitment. This study examines the effect, significance and direction of OHS on EC in the case of the Soft Drink Industry in Ethiopian.

2.6. Proposed Conceptual Model

Based on the evidence from the above related literatures the following conceptual frame model and hypothesis are forwarded.

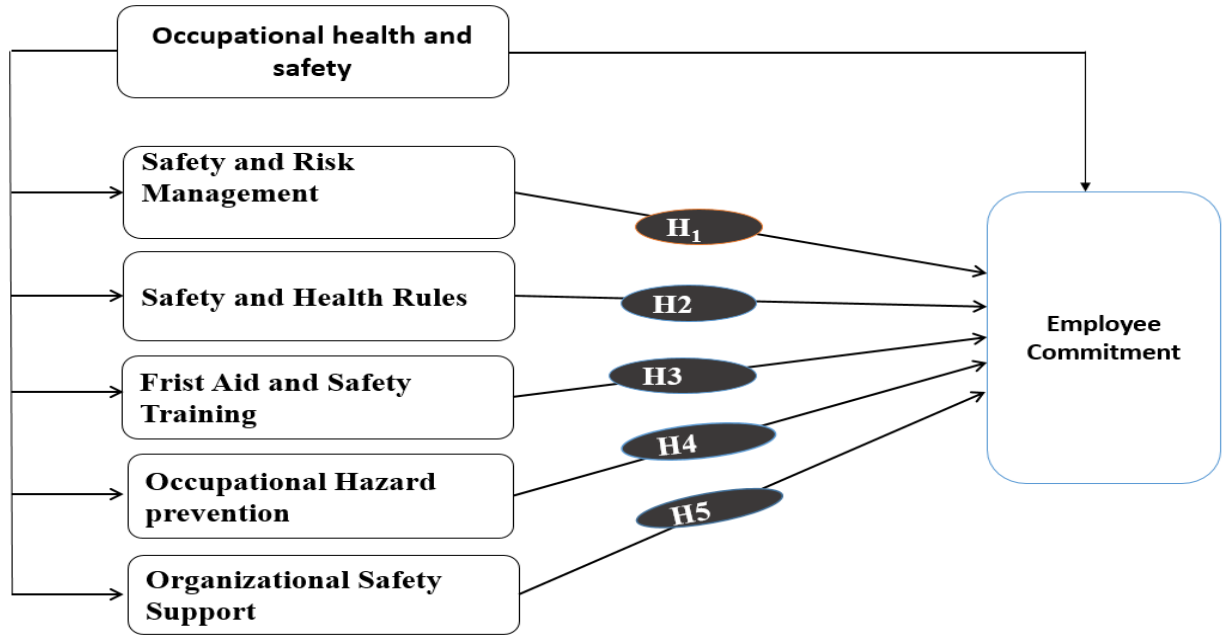


Figure 2.1. Proposed conceptual model of the study

H_1: The effect of Safety and Risk Management on Employee commitment is significant and positive.

H_2: The effect of Safety and Health Rules on Employee commitment is significant and positive.

H_3: The effect of Frist Aid and Safety Training on Employee commitment is significant and positive.

H_4: The effect of Occupational Hazard Prevention on Employee commitment is significant and positive.

H_5: The effect of Organizational Safety Support on Employee commitment is significant and positive.

CHAPTER THREE: RESEARCH METHODOLOGIES

This chapter has presented a review of the research methodology applied in this research. It indicates the research design, research instrument, population, sample size, sampling techniques, data analysis & reliability and validity of instrument.

3.1. Research Design

The main objective of this study is examining the effect of occupational Health and Safety on Employee Commitment which leads the research to follow Descriptive and Explanatory research design. These design helps the study to achieve its objectives sated and show the association of the two variables. These designs aims to understand phenomena by discovering and measuring relations among variables (Mitchell and Jolley, 2007).

3.2. Method of data collection

Quantitative research is normally used to study relationships between variables, and answers the question "what?" (Glaser & Straus, 2009). It employs a well-structured questionnaire and interviews that mostly includes a closed question and quantified numerically. This study uses quantitative analysis to assess and describe the level of OHS and ES in the soft drink industry and explain the effect of OHS on EC. Primary data were collected using close ended 5 points Likert-type scale structured standard questionnaire to gather the research data and assess values.

3.3. Sampling Method

The sample size is a smaller set of the larger population and must be carefully selected to be representative of the population (Cooper and Schindler, 2003). The scope of the study is limited to employees at EABSC and MOHA Addis Ababa. The target population of this study, number of employees at East Africa Bottling and MOHA Soft Drinks Industry is, 4,000. To determine the appropriate sample size for the purpose of data collection, (Chen, 1997) statistical formula was used for this research and simple random sampling was adopted to select respondent from HR list.

$n = (t^2 * s^2)/d^2$

Where:

- n= sample size to be determined
- t= z-score for 95% is: 1.96
- s= common standard deviation (common value is 0.5)
- d=margin of error for mean (0.05 to 0.01) * the Likert scale used (5)

$n= (1.96^2*0.5^2) / (.04^2(5)) = 120$

Thus, **120** is the appropriate sample size

3.4. Data Analysis Method

The questionnaires for this study was arranged in three sections. Section One has information regarding the respondent's demographic features which included gender, age, educational qualification, years of experience in the organization. Section two of the questionnaire consists of structured five-point Likert scale close ended questions adopted from (Sulong, A.W. and Hassan, A., 2020) OHS measuring scale as discussed at 2. 3. Section three consists five-point Likert scale close ended questions assessing the level of employee commitment developed by (Allen and Meyer, 1993). Out of 120 questionnaire distributed using simple random method 105 was returned. These gathered data coded; organized, entered and fed to SPSS (Statistical Program for Social Science, version 25) to produce Descriptive, Correlation and Regression Analysis. The Descriptive analysis is used to showed the current status of occupational health and safety practices and the level of employee commitment in the industry; descriptive statistics such as percentage, frequency and measures of central tendency (mean, standard deviation, and skewness) are used to summarize the responses. The descriptive analysis was followed by the correlation analysis which showed the significance and nature of association of OHS with EC. Regression analysis further verify the effect of occupational health and safety on employee commitment, significance and direction of the relationship. Regression analysis model is an arithmetical method to deal with the formulation of mathematical model portraying relationship amongst variables which can be used for the purpose of prediction of the values of dependent variable, given the values of the independent variable (Chen, 2013). In this study OHS dimensions are the independent variable that predicts the dependent variables EC. Therefore, the below multiple linear regression models were used:

$EC = \beta_0 + X_1\beta_1$ (SRM) + $X_2\beta_2$ (SAHR) + $X_3\beta_3$ (FAST) + $X_4\beta_4$ (OHP) + $X_5\beta$ (OSS) + e

Where:

- ✓ EC: Employee commitment
- ✓ $\beta_{0:}$ Constant term
- ✓ β_1: Safety and Risk Management dimension of OHS
- ✓ $\beta_{2:}$ Safety and Health Rules dimension of OHS
- ✓ $\beta_{3:}$ Frist Aid and Safety Training dimension of OHS
- ✓ β_4: Occupational Hazard Prevention dimension of OHS
- ✓ $\beta_{5:}$ Organizational Safety Support dimension of OHS
- ✓ e: error term
- ✓ $X_{1,}$ $X_{2,}$ $X_{3,}$ X_4 and $X_{5,}$ are coefficients

3.5. Reliability and Validity of Instruments

Reliability and validity are keys in deciding the precision of the instrument we apply to gather data. According to (Thanasegaran, 2009) reliability and validity measure the precision with which a research instrument measures, enhances the credibility and sincerity of the instrument and the practicality of the research. Promotion of the validity and reliability of research will enhance the value of the research.

3.5.1. Reliability

Cronbach's alpha is a coefficient of reliability and it is commonly used as a measure of the internal consistency or reliability of a psychometric test score for the questionnaires. Hence, coefficients of .90 or greater are nearly always acceptable, 0.80 or greater is acceptable in most situations, and 0.70 may be appropriate in some exploratory studies for some guides (Heo, Kim & Faith, 2015). The Cronbach's Alpha values of the instruments were tested in SPSS. The following table summarizes scale and Cronbach's Alpha values of the variables were obtained confirming the reliability of the instruments used.

Table 3.1 Summary of scales & Cronbach's alpha values

Variables	Cronbach's Alpha	Number of Items
Employee Commitment	.956	18
Safety and Risk Management (SRM)	.891	6
Safety and Health Regulations (SAHR)	.921	8
First-Aid and Safety Training (FAST)	.937	3
Occupational Hazard Prevention (OHP)	.879	7
Organizational Safety Support (OSS)	.922	5

3.5.2. Validity

Validity refers to the extent to which a test measures what we actually wish to measure. This research used standard questionnaire that are used by other researchers. The content validity of the instruments in this research was confirmed. Occupational Health and Safety practice was measured using the 29-item developed by (Sulong, A.W. and Hassan, A., 2020) for measuring OHS in five basic dimensions: Occupational Hazard Prevention (OHP), Safety and Risk Management (SRM), Organizational Safety Support (OSS), Frist Aid and Safety Training (FAST), and Safety and Health Rules (SAHR). Employees' commitment was measured using the Employee Commitment Questionnaire (OCQ), developed by (Meyer and Allen, 1993) with a total of 18 items, and both questionnaires were answered on a five-point Likert scale.

3.6. Ethical Considerations

The researcher used appropriate citation, follow honest collection & analysis of data, preserved data confidentiality and keep the identity of respondents unanimous based on their consent to meet the ethical obligations of the research. Ethical language and approach was used in the questioners constructed and distributed to the respondents.

CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

In this chapter, the result obtained from MOHA Soft Drinks Industry and East Africa Bottling S.C employees using questionnaires survey are being presented and analyzed. The data presentation includes three parts. In the first part, the status of the occupational health and safety practice and the level of employee commitment is presented in the descriptive analysis. The second part shows the correlation analysis to see the association of OHS and EC. The third part presents the regression analysis results that shows the effect of Safety and Risk Management (SRM), Safety and Health Rules (SAHR), Frist Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) & Organizational Safety Support (OSS). on Employee commitment (EC) including the effect significance and direction. Discussion and data interpretation is followed the data presentation and finally the proposed hypothesis are tested.

4.1. Response Rate

Data were collected from the EABSC and MOHA employees that were selected in simple random method, the first respondent was picked using lottery method. To this effect 120 questionnaires were distributed and 105 were returned which has a response rate of 87.5%. A response rate is adequate, 60% good and above 70% is rated very well so a 98 percent rate of response is very good (Mugenda, 1999).

4.2. Profile of Respondents

Table 4.1: Demographic Characteristics of Respondents

It. No.	Respondents Characteristics	Categories	Frequency	Percent
1	Gender	Female	34	32.4
		Male	71	67.6
2	Age	21-30 years	25	23.8
		31-40 years	47	44.8

		41-50 years	15	14.3
		51 years & above	18	17.1
3	Highest level of education	Secondary level	32	30.5
		College /University level	54	51.4
		Post graduate level	19	18.1
4	Number of years in current employment	> 1 year	8	7.6
		1 to 2 years	13	12.4
		3 to 5 years	23	21.9
		Above 5 years	61	58.1

The gender composition of respondents shows that majority of the respondents are male, out of the total respondents, 71 (97.6%) are males and 34 (32.2) are females. The age distribution of the respondents' result indicates the majority of the respondents are in the age of 31 to 40 (44.8%) followed by the ages from 21 to 30 (23.8%). Regarding the educational background, majority of the participants of the study (or respondents) accounts (54%) are BA/BSc followed by secondary level (30.5%) percent and (18.1%) MSc. Finally, based on the respondents' service year in the case organization, the above result shows that the majority of the respondents have work experience more than 5 years (58.1%), from 3 to 5 years at (21.9%) percent followed by (12.4%) respondents with a work experience of 1 to 3 years. Respondents below 1 years' experience are the least in number at (7.6%). Over all, majority of the respondents have sufficient experience to be involved and provide leader-member exchange and change readiness related information that are relevant for this study. Over all, majority of the respondents have sufficient experience to provide information about the status of OHS practiced and level of EC in the organizations under the study.

4.3. Results of Descriptive Statistics

Here is presented descriptive statistics that shows the status of Occupational health and safety practice and Level of Employee commitment in the case of the soft drinks industry in Ethiopia.

Table 4.2: Results of Descriptive Statistics of status of OHS and level of EC

Descriptive Statistics			
	Mean	Std. Deviation	N
Employee Commitment	3.3958	0.68864	105
Safety and Risk Management (SPRM)	3.5333	0.70763	105
Safety and Health Regulations (SAHR)	3.1274	0.76770	105
First-Aid and Safety Training (FAST)	3.4032	0.95403	105
Occupational Hazard Prevention (OHP)	3.3864	0.5503	105
Organizational Safety Support (OSS)	3.2667	0.82353	105

The descriptive in table 4.2, shows that the status of occupational health and safety practice in the soft drink industry is more than average as demonstrated through with the mean values of the OHS dimensions that are: Safety and Risk Management (SRM) with a mean value of 3.5333 and standard deviation 0.70763, Safety and Health Regulations (SAHR) with a mean value of 3.1274 and standard deviation 0.76770, First-Aid and Safety Training (FAST) with a mean value of 3.4032 and standard deviation 0.95403, Occupational Hazard Prevention (OHP) with a mean value of 3.3864 and standard deviation 0.5503 and Organizational Safety Support (OSS) with a mean value of 3.2667 and stand deviation of .82353. It also shows the level of Employee commitment in the industry is also above average with a mean value of 3.3958 and standard deviation 0.68864. This shows positive sign regarding the level of OHS and EC in the industry.

4.4. Correlation Analysis Results

Correlation analysis is used to check the magnitude, nature and significance of association between variables. This research analyzes the correlation between OHS dimensions; Safety and Risk Management, (SRM), Safety and Health Regulations (SAHR), First-Aid and Safety Training (FAST), Occupational Hazard Prevention (OHP) and Organizational Safety Support (OSS) with EC. The following correlation matrix under table 4.3 shows the association of the variables.

Table 4.3 Correlation matrix

		SRM	SAHR	FAST	OHP	OSS	EC
SRM	Pearson Correlation	1					
	Sig. (2-tailed)	.000					
	N	105					
SAHR	Pearson Correlation	.871**	1				
	Sig. (2-tailed)	.000	.000				
	N	105	105				
FAST	Pearson Correlation	.901**	909**	1			
	Sig. (2-tailed)	.000	.000	.000			
	N	105	105	105			
OHP	Pearson Correlation	.783**	.816**	.830**	1		
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	105	105	105	105		
OSS	Pearson Correlation	.885**	.936**	.937**	.842**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	105	105	105	105	105	
EC	Pearson Correlation	.934**	.936**	.943**	.873**	.953**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000
	N	105	105	105	105	105	105

The correlation matrix results were interpreted in terms of the variables relationship strength, nature and significance. The correlation said to strong if the values Pearson correlation lies between .07 and 1. The relationship is moderate if the values are from .07 to .03 and it is weak relationship if the value lies below 0.3. Therefore, the relationship between employee commitment, EC with safety and management, SRM, is 0.934. The association between employee commitment with safety and health rules, SAHR, is 0.936. The relationship between EC and first aid and safety training, FAST, is 0.943 and with occupational hazard prevention, 0.873, and with organizational safety support, OSS, is 0.953. These results shows that each

occupational health and safety dimensions has strong, significant and positive association with employee commitment.

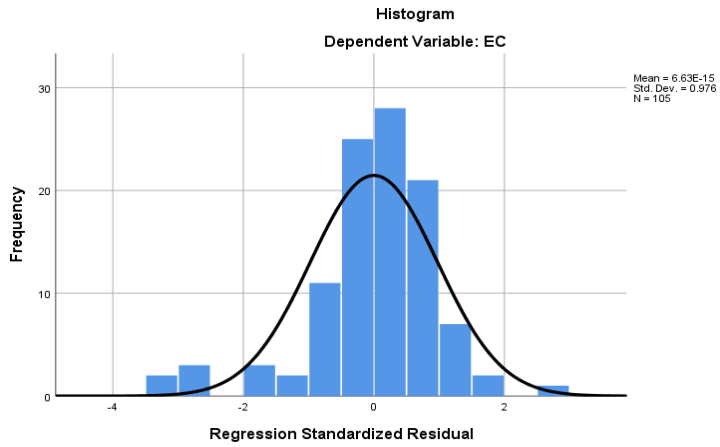
4.5. Regression Analysis Results

This study used multiple linear regression model to examine the effect of safety and management, safety and health rules, first aid and safety training, occupational hazard prevention and organizational safety support on employee commitment as discussed in the data analysis section at 3.4. The existence and the significance of the association between these variables were confirmed from the correlation analysis at 4.4. The regression analysis further identifies the effect of the independent variables on the dependent variables. The following assumption were tested for the regression analysis.

4.5.1. Normality and Linearity

Normality test is used to determine whether the error term is normally distributed. Visual inspection is employed here using histogram and P-P plot at Figure 4.1 showing that the residual is normally distributed. It also indicates that the relationship between the independent variable and dependent variable is linear and there is no under or over estimation of the dependent variable at a certain point.

Figure 4.1: Histogram graph of independent variables and dependent variable



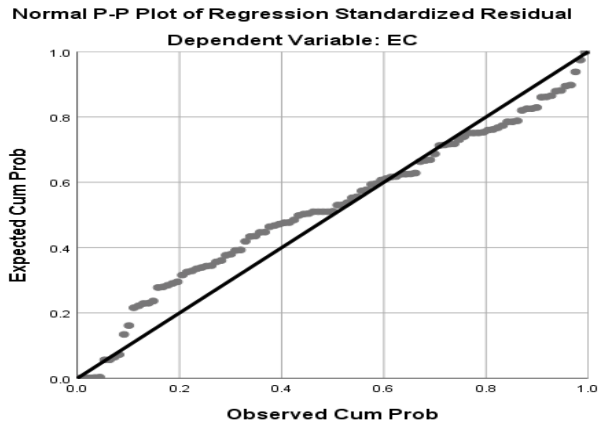


Figure 4.2: P-P plot, independent variables and dependent variable

4.5.3. Multi Collinearity

Multi collinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly related. Multi collinearity can be scanned through running variance inflation factor (VIF) and tolerance static (1/VIF) among others. The following table shows the collinearity Statistics composed of tolerance levels and the variance inflation factors (VIF).

Table 4.4 Multi Collinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Constant		
Safety and Risk Management (SPRM)	.609	1.64
Safety and Health Regulations (SAHR)	.549	1.82
First-Aid and Safety Training (FAST)	.373	2.68
Occupational Hazard Prevention (OHP)	.367	2.72
Organizational Safety Support (OSS)	.546	1.83
a. Dependent variable: Employee commitment		
b. Independent variables: Constant, SPRM, SAHR, FAST, OHP, OSS		

According to Field (2005), there is a concern for multi collinearity problem if the largest VIF is greater than 10 or a tolerance level below 0.2. The collinearity statistics in the current model shows the VIF values are all below 10 and the tolerance statistics are all well above 0.2. Therefore, it is safe to conclude that there is no multi collinearity problem within the research data.

4.5.4. Model Fit

The model fit in the current study is assessed through R^2, its ability to predict the outcome variable. The R^2 is used to assess the variance in employee commitment, dependent variable, accounted to independent variables, whereas adjusted R^2 measures the cross validity of the model. The results of the model-fit are presented in the model summary tables below. It is important to evaluate the acceptability of the model, which measuring how well the observed data fits the model. R^2 represents the amount of variance in the outcome explained by the model and measures the percentage of the variation in the outcome that can be explained by the model.

Table 4.5: Model fit Summary

Model Summary [b]

Model	R	R^2	Adjusted R^2	Std. Error of the Estimates
	.981[a]	.962	.960	.13696
a. Predicators: Constant, SRM, SAHR, FAST, OHP, OSS				
b. Dependent variable: Employee Commitment				

4.5.5. Coefficients of the Multiple Regression Analysis

The current study employed multiple linear regression models in examining the effect of occupational health and safety on employee commitment. The coefficients generated from the regression analysis is presented in the tables 4.6 below. The study multiple regression equation discussed at 3.4, were:

$EC = \beta_0 + X_1\beta_1 (SRM) + X_2\beta_2 (SAHR) + X_3\beta_3 (FAST) + X_4\beta_4 (OHP) + X_5\beta (OSS) + e$

Where:

- ✓ EC: Employee commitment
- ✓ $\beta_{0:}$ Constant term
- ✓ β_1: Safety and Risk Management dimension of OHS
- ✓ $\beta_{2:}$ Safety and Health Rules dimension of OHS
- ✓ $\beta_{3:}$ Frist Aid and Safety Training dimension of OHS
- ✓ β_4: Occupational Hazard Prevention dimension of OHS
- ✓ $\beta_{5:}$ Organizational Safety Support dimension of OHS
- ✓ e: error term
- ✓ $X_{1,}$ $X_{2,}$ $X_{3,}$ X_4 and $X_{5,}$ are coefficients

Table 4.6 Coefficients of independent variable

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
	Constant	.131	.101		1.294	.199
	Safety and Risk Management (SPRM)	.306	.046	.315	6.657	.000
	Safety and Health Regulations (SAHR)	.162	.052	.181	3.092	.003
	First-Aid and Safety Training (FAST)	.092	.046	.127	1.994	.049
	Occupational Hazard Prevention (OHP)	.206	.046	.166	4.451	.000
	Organizational Safety Support (OSS)	.205	.059	.246	3.454	.001

The standardized beta coefficient from the above table shows the contribution that an individual variable forms to the model. The Standard. Beta is the average amount the output variable increases when the predicator variable increases by one standard deviation. Therefore;

Employee commitment= .131+.315(SRM) + .181(SAHR) + .127(FAST) + .166(OHP) + .246(OSS)

The regression analysis coefficients show the effect of each independent variables on the dependent variable and level of significance and directions which are discussed below.

A. Safety and Risk Management and Employee commitment

A relationship between safety and risk management and employee commitment exists and significant at sig value of 0.00. Standardized Beta coefficient .315, shows 31.5% of variation in employee commitment can be explained by safety procedures and risk management.

B. Safety and Health Regulations and Employee commitment

The relationship between safety procedures and risk management and employee commitment is significant at the value of .003. Standardized Beta coefficient .181. shows that 18.1% of variation in employee commitment can be explained by safety and health regulations.

C. First Aid Support and Training and Employee commitment

The association of first aid support and training with employee commitment is significant at the value of .049. Standardized Beta coefficient .127 shows that 12.7% of variation in employee commitment can be explained by first aid support and training.

D. Occupational Hazard Prevention and Employee commitment

The relationship between occupational hazard prevention and employee commitment exists and significant at the value of .000. Standardized Beta coefficient .166 shows that 16.6% of variation in employee commitment can be explained by occupational hazard prevention.

E. Occupational Safety Support and Employee commitment

The association of occupational safety support and employee commitment is significant at the value of .001. Standardized Beta coefficient .246 shows that 24.6 % of variation in employee commitment can be explained by occupational safety support.

4.6. Hypotheses Test

H_1: The effect of Safety and Risk on Employee commitment is significant and positive.

Referring the results at table 4.6, safety and risk management affects employee commitment significantly and positively with a sig value of .000. Thus, the alternative hypothesis that stated the two variables have significant and positive relationship is supported.

H_2: The effect of Safety and Health Rules on Employee commitment is significant and positive. According results at table 4.6, Safety and health rules affects employee commitment significantly and positively at the value of sig .003. Thus, the alternative hypothesis that stated the two variables have significant and positive relationship is supported.

H_3: The effect of Frist Aid and Safety Training on Employee commitment is significant and positive.

Table 4.6, shows that first aid and safety training affects employee commitment significantly and positively with the value of sig .049. Thus, the alternative hypothesis that stated the two variables have significant and positive relationship is supported.

H_4: The effect of Occupational Hazard Prevention on Employee commitment is significant and positive.

Referring table 4.6, occupational hazard prevention affects employee commitment significantly and positively at sig value of .000. Thus, the alternative hypothesis that stated the two variables have significant and positive relationship is supported.

H_5: The effect of Organizational Safety Support on Employee commitment is significant and positive.

Table 4.6, shows that organizational safety support affects employee commitment significantly and positively at sig value of .001. Thus, the alternative hypothesis that stated the two variables have significant and positive relationship is supported.

CHAPTER 5: SUMMARY, CONCLUSIONS and RECOMMENDATIONS

The main objective of this study was to examine the effect of occupational health and safety practices on employee commitment in the case of the soft drinks industry in Ethiopia. To this effect, the study explained what occupational health and safety is in terms of the five dimensions under OHS such as safety and risk management, safety and health regulations, first aid and safety training, occupational hazard prevention and organizational safety support. Further, the effect of each OHS dimensions on employee commitment was demonstrated. The following major findings of the study, conclusions and recommendations are presented below.

5.1. Summary of Findings

The descriptive analysis shows that the status of occupational health and safety practice in the soft drink industry is more than average as demonstrated through the mean values of the OHS dimensions that are: Safety and Risk Management (SRM) with a mean value of 3.5333 and standard deviation 0.70990, Safety and Health Regulations (SAHR) with a mean value of 3.1274 and standard deviation 0.77016, First-Aid and Safety Training (FAST) with a mean value of 3.4032 and standard deviation 0.95709, Occupational Hazard Prevention (OHP) with a mean value of 3.2667 and standard deviation 0.82353. It also shows the level of Employee Commitment in the industry is also above average with a mean value of 3.3958 and standard deviation 0.68864. Therefore, the status of Occupational health and safety practice and level of Employee commitment are more than average. This shows positive sign regarding the level of OHS and EC and the industry has made an effort to achieve this values.

The findings of the correlation matrix confirm that there is strong, positive and significant association of employee commitment with safety and risk management, safety and health rules, first aid and safety training, occupational hazard prevention and organizational safety support.

Multiple linear regression analysis has been conducted to find out the effect of occupational health and safety on employee commitment. The result shows that safety and risk management explains 31.5% of variation on employee commitment, safety and health regulations explains 18.1% of variation on employee commitment, first aid and safety training explains 12.7% of variation on employee commitment, occupational hazard prevention explains 16.6% of variation on employee commitment and organizational safety support explains 24.6% of variation on

employee commitment. Therefore, the results from this study shows that occupational health and safety practice has positive and significant effect on employee commitment and the proposed hypothesis are supported.

5.2. Conclusions

The result of this study concludes that occupational health and safety significantly and positively affects employee commitment. Employees more likely to increase their commitment to the organization where they feel that their health and safety is secured. By contrast, where there are shortcomings in occupational health and safety practice and wellbeing is threatened, employees will exhibit poor commitment which affects the organization success negatively (Dixit & Bhati, 2012).

The descriptive analysis part of this study showed that the status OHS practice and the level of EC in the industry are more than average which shows that there is a positive sign regarding the level of OHS and EC and the industry has made an effort to achieve this values. Further the study concludes that the industry is doing better in their FAST, SRM & OHP system compare to their SAHR & OSS.

The results of the correlation and regression analysis fully supported the hypothesis forwarded by the researcher that is OHS affects EC significantly and positively and conclude that the effect of occupational health and safety on employee commitment positive and significant and conclude that 31.5%, 18.1%, 12.7%, 16.6% & 24.6% variation on employee commitment can be explained by SRM, SAHR, FAST, OHP & OSS respectively.

The effects of each dimensions shows the priority of ahold be given in relation to employee commitment. Thus their priority order become SPRM, OSS, SAHR followed by OHP & FAST in relation to EC.

5.3. Recommendations

Every organization wants to be successful and employees are the prime resource and core strength to reach to the success that organizations looking for. Organizations often give attention to technology, clients and structures than their workers. The fact is, it is the worker who drive the technology and structures and meet the clients need which govern the overall organizational

success. Organizations need to pay attention on ensuring complete wellbeing of workers and exceling their commitment to the overall vision for the business governs the direction towards success. The following recommendations were made on the basis of the findings of the study:

The factual information's about the status of occupational health and safety and the level of employee commitment helps at EABSC and MOHA management where the actual situations are and plan the future for excellence in their OHS practice and EC. In this regard the results show that the overall OHS and EC status in the industry is more than average that shows positive effort made by the organization. Compare to what is at stake, continues progress should continue on the area. The FAST, SPRM & OHP system in the industry are performed better compare to their SAHR & OSS system and top management can pay attention to SAHR & OSS system.

Occupational health and safety practice affects employee commitment significantly and positively, therefore, the management at EABSC and MOHA should recognize the fact that workers who feel healthy and safe in performing of their duties develop emotional attachment and have a sense of obligation to their organization and this excels commitment and enhance their OHS practice in order to excel employee commitment.

Management in the industry should consider the importance of OHS and its effect while working on bettering organizational commitment.

5.4. Suggestions for Future Studies

This study has examined the effect occupational health and safety in terms its five dimensions and see their effect on employee commitment. Future studies can break down the dimensions under employee commitment as Affective, Normative and Continuance commitment (Allen & Meyer, 1990) and investigate each effect of OHS dimensions on the three employees' commitment factors individually.

5.5. Conflict of Interest

All authors have no conflicts of interest to declare.

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APPENDIX

Appendix I: Letter of Introduction

Dear Respondent,

My name is Hiwot Asamenew and I am carrying out an important research on **The Effect of Occupational Health and Safety on Employee Commitment in the Soft Drink Industry** in Ethiopia, specifically at MOHA Soft Drinks Industry and East Africa Bottling SC. This dissertation is submitted for the partial fulfilment of the requirements for the degree of Masters of Project Management School of Commerce, Addis Ababa University, Ethiopia.

The completion of this survey implies your permission to participate. Your participation will be anonymous and you won't be identified by your response. The results that comes from your answer will help to increase knowledge and practice of Occupational Health Safety in the Soft drink industry and to identify its effect on Employee Commitment.

Please do not hesitate to contact me if you have any questions in relation to the survey via my email address hehiwot@gmail.com

Please complete the following questions from each part of the questionnaire to reflect your opinions as accurately as possible. Your information will be strictly confidential. Please **CHOOSE** your response which best represents your level of agreement on each statement on 5 point Likert scale.

Thank you for taking your time to fill in the questionnaire.

Sincerely,

Hiwot Asamenew

Appendix II: Demographic data

1. Gender

   a) Male ☐
   b) Female ☐

2. Highest level of education

   a) Secondary level ☐

   b) College/ University level ☐

   c) Post graduate level ☐

3. Number of years in current employment

   a) less than one year ☐
   b) 1 to 2 year ☐
   c) 3 to 5 years ☐
   d) More than 5 years ☐

4. Age

   a) 21-30 years ☐
   b) 31-40 years ☐
   c) 41-50 years ☐
   d) 51 years & above ☐

Appendix III: Occupational Health and Safety scale: OHS Explanatory factor analysis (Sulong & Hassan, 2020)

Circle one answer for each statement using the scale at the top of the table.

A. Safety and Risk Management (SRM)

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Any changes in job distribution is informed to employees	□	□	□	□	□
2	Supervisors/ employers inform to the workers about our occupational risk	□	□	□	□	□
3	My working procedure/ arrangement follows the working procedure prepared by the employers	□	□	□	□	□
4	I am knowledgeable about every working procedure	□	□	□	□	□
5	The number of workers are sufficient to all work completion	□	□	□	□	□
6	The number of work assigned to workers are balanced	□	□	□	□	□

B. Safety and Health Regulations (SAHR)

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The time allocated for work is not burdensome	□	□	□	□	□
2	I have enough rest time	□	□	□	□	□
3	Health and safety regulations are practical	□	□	□	□	□
4	I abide by the rules even though my working schedule is tight	□	□	□	□	□
5	I have undergone health checkups before being employed	□	□	□	□	□
6	I go for regular health check-ups since I have been employed	□	□	□	□	□
7	Employers/ supervisors remove things that are hazardous to my health and safety from the work place	□	□	□	□	□
8	Employer/ supervisors are concerned about the disabled's and older workers' needs.	□	□	□	□	□

C. First-Aid and Safety Training (FAST)

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I am trained about things that are hazardous to my health and safety	□	□	□	□	□
2	I am provided with hygiene and health trainings	□	□	□	□	□
3	I am provided with first aid trainings	□	□	□	□	□

D. Occupational Hazard Prevention (OHP)

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I am provided with safety equipment such as goggles, safety helmets, boots, gloves, masks, and suits (jumpsuit).	□	□	□	□	□
2	Only trained and fully equipped workers are allowed to access dangerous and risky place	□	□	□	□	□
3	Workers in risky areas are always supervised to make sure they follow the right and safe procedure	□	□	□	□	□

4	Workers' mistakes and shortcomings are disclosed during internal audit	□	□	□	□	□
5	My workplace has sufficient lighting and room for movement	□	□	□	□	□
6	My workplace has designated area for garbage.	□	□	□	□	□
7	My workplace provides health and safety equipment like fire extinguishers or water hoses	□	□	□	□	□

E. Organizational Safety Support (OSS)

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Employers provide sufficient treatment and within appropriate timing	□	□	□	□	□
2	I am provided with sufficient resting period before returning to work after sustaining injury.	□	□	□	□	□
3	The employers compensate workers who sustained injuries/ involved in an accident.	□	□	□	□	□
4	The employers abide by the working health and safety regulations	□	□	□	□	□

5	The employers keep the privacy of all workers' medical record	□	□	□	□	□

Appendix IV: Employee Commitment Scale Revised Version (Meyer, Allen, & Smith, 1993)

A. Affective Commitment Scales

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I would be very happy to spend the rest of my career with this organization.	□	□	□	□	□
2	I really feel as if this organization's problems are my own.	□	□	□	□	□
3	I do not feel a strong sense of "belonging" to my organization	□	□	□	□	□
4	I do not feel "emotionally attached" to this organization	□	□	□	□	□
5	I do not feel like "part of the family" at my organization	□	□	□	□	□
6	This organization has a great deal of personal meaning for me.	□	□	□	□	□

- Item 3,4 and 5 reversed coded in the SPSS analysis.

B. Normative Commitment Scales

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I do not feel any obligation to remain with my current employer	□	□	□	□	□
2	Even if it were to my advantage, I do not feel it would be right to leave my organization now.	□	□	□	□	□
3	I would feel guilty if I left my organization now.	□	□	□	□	□
4	This organization deserves my loyalty.	□	□	□	□	□
5	I would not leave my organization right now because I have a sense of obligation to the people in it.	□	□	□	□	□
6	I owe a great deal to my organization.	□	□	□	□	□

- Item 1, reversed coded in the SPSS analysis.

C. Continuance Commitment Scale

It. No.	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Right now, staying with my organization is a matter of necessity as much as desire.	□	□	□	□	□
2	It would be very hard for me to leave my	□	□	□	□	□

	organization right now, even if I wanted to.					
3	Too much of my life would be disrupted if I decided I wanted to leave my organization now.	□	□	□	□	□
4	I feel that I have too few options to consider leaving this organization	□	□	□	□	□
5	If I had not already put so much of myself into this organization, I might consider working elsewhere.	□	□	□	□	□
6	One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.	□	□	□	□	□