

**THE EMPLOYEE ATTITUDES ON HEALTH AND SAFETY MEASURES IN
THE MANUFACTURING SECTOR
THE CASE OF SUMARIA INDUSTRIES LIMITED**

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DECLARATION

Student Declaration

This is my original work and has not been submitted to for any academic award in any institution.

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DEDICATION

I would like to dedicate this proposal to my family for all their support and encouragement throughout my studies and to the university for all their support.

ACKNOWLEDGEMENT

First and foremost, I thank my shepherd, wonderful friend and the closest person in my life, the Lord Jesus Christ who gave me the chance to be alive and well enough to write this project.

Great thanks to my family, especially my parents for their continued love, support and investment in my education and future.

To my supervisor Dr. Dorcas Ogutu, I highly appreciate the guidance, correction and positive criticism you accorded to me during the writing of this research proposal and enabled me to grasp what is needed to be done to develop a research study.

I also acknowledge the management of Sumaria Industries Limited who allowed me to conduct my research in their organization.

ABSTRACT

The attitudes of employees on health and safety and reported incidences and accidents is not only important to Sumaria Industries Limited but also organizations related to it. The study purposes to show how safety and health measures affect the attitudes of employees towards their safety in an organization. The study investigates how safety training of employees has an impact to the organization or to determine whether safety programs and policies at hand have an impact. The study covers issues on employees' attitudes towards health and safety and the incidences or accidents reported. The study also provides a brief literature review and conceptual framework on an assessment of employee attitudes on health and safety measures in an organization. Organizations need to be concerned with employee's health and safety and ensure that the employees work in a good environment in an effort to reduce accidents. The research design that was used is qualitative. The population was the low cadre employees of Sumaria Industries: Industrial Area. The sampling method was used to select a number of individuals from the population. The data collection tool used was questionnaires. The data was analyzed and presented using frequency tables and charts. The results were positive as the organization generally promotes health and safety measures which in-turn positively affected the employee attitudes on matters of safety and health at the workplace.

TABLE OF CONTENTS

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGMENT.....	iii
ABSTRACT.....	iv
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
LIST OF ACRONYMS & ABBREVIATIONS.....	x
DEFINITION OF KEY TERMS.....	xi
CHAPTER ONE.....	1
1.0. Introduction.....	2
1.1. Background.....	2
1.2. Statement of the Problem.....	4
1.3. Objectives of the Study.....	5
1.3.1. General Objectives.....	5
1.3.2. Specific Objectives.....	5
1.4. Research Questions.....	5
1.5. Significance of the Study.....	6
1.6. Scope of the Study.....	6
CHAPTER TWO.....	7
2.0. LITERATURE REVIEW.....	7
2.1. Introduction.....	7
2.2. Theoretical Review.....	7
2.2.1. Expectancy Theory.....	8
2.2.2. Chemical Inhalations Theory.....	8
2.2.3. Social Exchange Theory.....	8
2.3. Empirical Review.....	9
2.3.1. Safety and Health Training.....	9
2.3.2. Safety and Health Programs.....	11
2.3.3. Safety and Health Policies.....	12
2.3.4. Safety and Health Communication.....	12
2.4. Conceptual Framework.....	14
2.5. Research Gap.....	16

CHAPTER 3.....	17
RESEARCH METHODOLOGY.....	17
3.1. Introduction.....	17
3.2. Research Design.....	17
3.3. Target Population.....	17
3.4. Sample Design and Size.....	18
3.5. Sampling Procedures.....	18
3.6. Data Collection Method.....	19
3.7. Data Analysis.....	19
3.8. Limitations of the Study.....	19
3.9. Research Ethics.....	19
CHAPTER FOUR.....	20
DATA ANALYSIS AND PRESENTATION.....	20
4.1. Introduction.....	20
4.2. Demographics.....	20
4.3. Industrial Health and Safety.....	23
4.4. Safety Programs.....	24
4.5. Safety Trainings.....	27
4.6. Safety Policies.....	30
CHAPTER FIVE.....	32
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION.....	32
5.1. Introduction.....	32
5.2. Summary of Findings.....	32
5.3. Conclusion.....	34
5.4. Recommendation.....	34
APPENDIX I.....	35
REFERENCES.....	35
APPENDIX II.....	39
INTRODUCTORY LETTER TO THE QUESTIONNAIRE.....	39

APPENDIX III.....	40
QUESTIONNAIRE.....	40
SECTION A: DEMOGRAPHIC DATA.....	40
SECTION B: INDUSTRIAL HEALTH AND SAFETY.....	41
SECTION C: EMPLOYEES SAFETY PROGRAMS.....	41
SECTION D: SAFETY TRAININGS.....	42
SECTION E: SAFETY POLICIES.....	42

LIST OF TABLES

Table 1: Conceptual Framework.....	14
Table 2: Sampling Design and Sample.....	19
Table 3: Gender Response.....	20
Table 4: Age Intervals.....	21
Table 6: Duration of Employment.....	22
Table 7: Effect of Respondent work on their Health and Safety.....	23
Table 8: Safety and Health Rating in Sumaria Industries Limited.....	23
Table 10: Effectiveness of Health and Safety in Sumaria Industries Limited.....	24
Table 11: Respondents' Awareness of Safety Programs.....	25
Table 13: Effectiveness of Safety Programs.....	26
Table 14: Safety in Relation to Job Target Fulfillment.....	27
Table 16: Respondents' Awareness of Safety Training.....	28
Table 17: Previous trainings.....	29
Table 18: Training Participation.....	29
Table 19: Fire Drill Awareness.....	30
Table 20: Awareness of Policies.....	30
Table 22: Effectiveness of Safety Policies.....	31

LIST OF FIGURES

Figure 5: Age Intervals.....	21
Figure 9: Safety and Health Rating in Sumaria Industries Limited.....	24
Figure 12: Respondents' Awareness of Safety Programs.....	25
Figure 15: Relation between Respondent Jobs and Their Work Environment.....	28
Figure 21: Awareness of Policies.....	31

LIST OF ACRONYMS & ABBREVIATIONS

ILO International Labor Organization

OSHA Occupational Health and Safety Act

SIL Sumaria Industries Limited

DEFINITION OF TERMS

Attitude A settled way of thinking or feeling about someone or something, typically one that is reflected in a person's behavior.

Training Organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill.

Policy Management: The set of basic principles and associated guidelines, formulated and enforced by the governing body of an organization, to direct and limit its actions in pursuit of long-term goals. See also corporate policy.

Safety Relative freedom from danger, risk, or threat of harm, injury, or loss to personnel and/or property, whether caused deliberately or by accident.

Health It is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.

Humanitarianism

This is defined as an ethic of kindness, benevolence and sympathy extended universally and impartially to all human beings

Altruism This is the principle or practice of concern for the welfare of others. It is a traditional virtue in many cultures and a core aspect of various religious traditions and secular world views, though the concept of 'others' towards whom concern should be directed can vary among cultures and religions.

CHAPTER ONE

1.0 Introduction

This chapter is going to focus on the background of the study. It shall briefly outline the problem statement, objectives and research questions. It will also explain the scope and significance of the study and finally definition of terms.

1.1 Background Of The Study

Human factors play an important, but very often overlooked, role in the management of safety and quality in the work environment. Both safety and quality programs in the workplace depend on team-oriented employees who can spot potential issues and correct them on the floor or the line (Das, Pagell, Behm, and Veltri, 2008). Researchers and experts from several academic areas have noted the importance of positive employee involvement in the success of quality management systems and possible linkages between quality and safety (Das et al., 2008; Goetsch, 2008). Most organizations are concerned about providing a safe and healthy workplace for their employees. But meeting that general goal is not easy. This is because of the attitudes employees have on matters of safety. Furthermore, not all situations affecting employee health and safety can always be anticipated. Nevertheless, organizational managers and Human resource personnel have responsibilities for the health and safety issues of their organization. Part of this concern is simple humanitarianism. Few organizations will knowingly send unprotected employees into dangerous situations. Apart from altruism, there are two other reasons for organizational concern about the work environment. First, there are bottom Line performance consequences of mental and physical health. Second, state and international labor laws require that reasonable levels of safety be maintained in the work environment (Michael Armstrong).

Among modern successful manufacturing industries, safety and health management concerns go beyond the physical conditions of the workplace, to a regard for employees' mental and emotional well-being and a commitment to protecting the surrounding community from pollution and exposure to toxic substances, a subject that has gained much concern in recent years.

Employers do, however, consider 'health and safety' to be a generic phrase, and do not distinguish successfully between the two distinct types of risks concerned. They understand health and safety to be a set of rules and regulations that relate directly to safety in the workplace, or more broadly to ensure general wellbeing for employees. Both employers and employees have very similar views of the respective responsibilities of each party for health and safety in the workplace. Over half of employers and employees see the employers as the party with principle responsibility, with employees second. When prompted many more will mention the Government, HSE and Local Councils as having health and safety responsibilities, those in the public sector will be more likely to mention these bodies than those in the private sector.

The study will be based on a case study of Sumaria Industries Limited. The study will seek to establish the attitudes employees have on health and safety and how these attitudes can be influenced by the safety and health measures so as to minimize accidents or incidents at the workplace. The roots of Sumaria Industries Limited began in 1979 as Simba Plastics Ltd, and today it is the largest integrated plastics production facility in East Africa. They possess all major plastics processing capabilities and have been acknowledged as the market leader in almost all segments that they operate in. For all the nearly 50 years since its founding as Simba Plastics Ltd, Silafrica has continuously set and reset the standards for quality, customer satisfaction, new technology, design and innovation.

Sumaria Industries Limited (SIL) is a leader in the plastics packaging and plastic branded product market in Kenya and Sub Saharan Africa. The company was established in 1979 as a family concern. Today, it is one of the most technologically advanced manufacturing concerns in East Africa. It employs over four hundred people and it continues to grow each year. SIL provides a broad range of products from rigid packaging for multi-national consumers to consumer products for the retail consumer market. Some of the major customers in the rigid packaging include Unilever and Bidco.

Management and supervisory personnel at manufacturing industries' facilities deal with a wide variety of safety issues including several safety standards and guidelines. Challenges of manufacturers such as plastic manufacturing firms include working with a large number of seasonal and temporary laborers and the intense pressure for high productivity during the peak seasons (Brandon, 2009; Chapman & Husberg, 2008; Lehtola, Brown, & Becker, 2009). Based

on the incident rate and historical patterns of both injuries and fatalities, it is well established that managing safety at a plastic manufacturing industry is a challenge (Laviana, 2010).

Some of the worst accidents reported include Reactor melt down at the Chernobyl nuclear plant in Chernobyl Ukraine in April, 26th 1986, 31 deaths were directly attributed to the accident, all among the reactor staff and emergency workers, but the UNSCEAR (United Nations Scientific Committee on the Effects of Atomic Radiation) found that, as of 2005, some 6,000 thyroid cancers and 15 thyroid cancer deaths are attributable to the accident. The Fukushima Nuclear Accident in Japan in March, 2011, On January, 30th 2000; Baia Mare cyanide spill took place in Baia Mare, Romania. The accident, called the worst environmental disaster in Europe since Chernobyl, was a release of 100,000 tons of cyanide-contaminated water into the rivers, Some, Tisza, and Danube by an aural mining company due to a reservoir breach. Although no human fatalities were reported, the leak killed up to 80 percent of aquatic life in some of the affected rivers.

Plastics are made from polymers which are made from hydro-carbons through the process referred to as polymerization. Many common classes of polymers are composed of hydrocarbons. These polymers are specially made of small units bonded into long chains. Carbon makes up the backbone of the molecule and hydrogen atoms are bonded along the backbone. Industrialists and engineers produce different types of plastics by manipulating the molecular structure that affects the final polymer produced. Manufactures and processors introduce various fillers, reinforcements and additives into the base polymers, expanding product possibilities.

Besides the above, plastics have been said to have good safety and hygiene properties for food packaging. They are easy to clean and maintain and they do not rust even when exposed to moisture and water. Plastics are also advantaged in that they poses excellent thermal and electrical insulation properties. They are highly suitable for electrical uses as insulators as they are heat and electrical resistant. On industrial levels, plastics is said to be relatively inexpensive to produce and large scale production makes them the cheaper alternative to wood and metal or steel. They can easily be recycled through a melting process. Many countries in the world over cannot resist the plastic temptation due to their energy saving abilities due to the characteristics mentioned above (Armstrong, 2001).

With the exception of some Manila paper bags, there are hardly any alternatives to plastic shopping bags in Kenya. Shopping bags made from natural products are available in the market but are hardly used because of the easy and free availability of plastic shopping bags in market outlets and the low price which they are sold in outdoor markets.

But a number of issues have been raised with regard to plastics and their consisting products among them being environmental effects as well as health hazards they pose to workers in the manufacturing industries. Plastics today are being associated with epidemics such as malaria, blocking of gutters and drains, infants suffocations, choking of farm animals and marine wildlife as well as soil pollution as they gradually break down. But the worst of it has been in the manufacturing sector where workers in factories are exposed to great health hazards through contact with plastic fumes, solvents, chemical ingredients and the machines that make these products.

The aforementioned issues set the stage as to why health and safety is a key element since the manufacture of plastic contains a lot of chemicals hence the need for health and safety to be taken very seriously.

1.2 Statement of the Problem

A report by the Great Britain Health Safety Executive- 2013-2014 noted that a large number of employees during production get exposed to many chemical additives that give plastic products desirable performance properties are found to have negative environmental and human health effects. Many illnesses and deaths have been associated with the plastic and rubber industries. Historically, cancer has been the chronic disease most frequently reported in studies of plastic products workers. Previous research has shown a pattern or relationship between many of the occupational accidents and incidents in relation to the attitudes of employees (emeraldinsight.com/doi/full/10.1108/00483480610670580).

The Merriam-Webster online dictionary defines attitude as a feeling or way of thinking that affects a person's behavior. This shows that attitudes affect an individual's behavior towards a certain phenomenon. Other studies have also shown that attitudes may in turn also be affected by certain factors such as existing circumstances or situations, environment or certain knowledge/information.

Therefore this relates that employee attitudes towards health and safety affect their behaviors on health and safety. It also means that employee attitudes can be changed. This study aims to establish how the employee attitudes on safety and health can be changed through the safety and health measures such as safety trainings and safety and health programs.

1.3 Objective of the Study

1.3.1 General Objectives.

The general objective of the study is to determine employee attitudes on health and safety measures in the manufacturing sector with the case of Sumaria Industries Limited: Industrial Area.

1.3.2 The Specific objectives.

These are the specific measurable tasks that will assist to address the general objectives.

- i. To determine the effect of employee safety programs on attitudes towards health and safety in the organization.
- ii. To determine the impact of safety training programs on employee attitudes towards health and safety.
- iii. To identify the effect of health and safety policies in manufacturing companies on employee attitudes on health and safety.
- iv. To determine the impact of communication on employee attitudes on health and safety in the organization.

1.4 Research Questions

The following Research questions will be addressed.

- i. How do the employee safety programs in the organization influence employee attitudes towards health and safety at the workplace?
- ii. What is the impact of safety and health training on employee attitudes towards health and safety?

- iii. How do health and safety policies influence employee attitudes on health and safety in an organization?
- iv. How does communication influence employee attitudes towards health and safety in an organization?

1.5 Significance of the Study

This study will be of importance to the management of plastic industries and other industries in the manufacturing sector as well as other interested groups. Both the employers and employees will be able to understand and appreciate the benefits of health and safety measures and set better standards and as a result manufacturing firms such as Sumaria Industries Limited will be able to lead to a great reduction of accidents which are often costly to both parties. This study will also be of benefit to employees in increasing their job satisfaction which is vital to any organization that seeks to continuously grow and will increase positivity in the overall work climate. The study will also enable the industry to gain competitive advantage.

The study will also help the government and other researchers undertaking relevant study in the market to draft informed policies concerning the health and safety regulations in plastic manufacturing industries towards employer and employee satisfaction. The researcher will also gain skills, knowledge and experience on how the different employee attitudes impact health and safety measures.

1.6 The Scope of the Study

The study will be carried out at Sumaria Industries Limited - a leading manufacturer of plastics in Kenya (and East Africa) along Mombasa road (Industrial Area) and shall target all employees with the exception of managers and shall focus on the attitudes that employees have on health and safety in the workplace and how the measures affect these attitudes. The study will mainly target the lower level employees.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter is an analysis of the attitudes towards health and safety regulations by employees in the organization by reviewing the literature written by scholars, academicians and professionals in the past. A lot has been written on the effect of health and safety regulations in manufacturing industries, but despite these numerous sources, the literature review draws clearly on the available academic literature focusing primarily on under developed countries, a category where Kenya falls in.

2.2 THEORETICAL REVIEW

The purpose of the study on the employees' attitudes on health and safety is to ensure that the employees work positively and to make sure that they have full satisfaction including:- the use of mask to avoid chemical inhalation, use of quality equipment, good lighting to protect eyes, avoid overcrowding, good ventilation and good sanitary.

Kenya's Trade Ministry in a study has shown that there are more than 70 plastic manufacturing industries in Kenya with capacities ranging from 1000 to 8000 tons per year. Most of these industries are located in Nairobi and Mombasa, with a few in Kisumu, Nakuru, Eldoret and Thika. The plastic industries sub-sector wouldn't benefit without the new technological changes in the manufacturing industries combined with the positive shift in demand for plastic products. This has resulted in increased production and huge demand for plastic products. The sub-sector contributes substantially to the national economy by providing affordable products, which are gradually replacing expensive metal and ceramic products especially in the building and construction industry and consumer household products.

According to the online Business Dictionary a theory is a set of assumptions, propositions, or accepted facts that attempts to provide a plausible or rational explanation of cause-and-effect (causal) relationships among a group of observed phenomenon. The word's origin (from the Greek *thorós*, a spectator), stresses the fact that all theories are mental models of the perceived reality.

Theory can also mean the general principles or ideas that relate to a particular subject or an idea(s) that intends to explain facts or events. An idea that is suggested or presented as possibly true but that is not known or proven to be true

Different theories have been developed on the issue of attitudes in organizations.

2.2.1. Expectancy Theory

An expectancy theory according to Vroom's terminology (1964) represents an individual's belief that a particular degree of effort was followed by a particular level of performance. Expectancy theory holds that people are motivated to behave in ways that produce desired combinations of expected outcomes. By ensuring health and safety regulations in the organization, managers are required to provide support and coaching by increasing employee's self-worth so as to encourage proactive involvement of employees in matters of safety and health.

2.2.2 Chemical Inhalations Theory

Another well-known theory on health and safety of employees is chemical inhalation theory. (Charles F. 2001) noted that the global experience shows that employees in fiberglass resin plastics manufacturing are exposed to multiple hazards, high level of styrene in lamination operations, noise in spray booths and grinding areas, dust from grinding operation. In addition to chemical vapor noise hazards, employees may be exposed to eye or skin contact with catalysts used to initiate resin curing.

Other studies report an increase in adverse respiratory symptoms among rubber products workers. North Carolina researchers in America also investigated chronic disabling, pulmonary diseases among rubber products workers (Lednar et al 1977).

2.2.3. Social Exchange Theory and Reciprocity Theory

Basically according to these theories, expressions of positive concern for others create a feeling of indebtedness and a sense of obligation to respond positively in return. Workers who perceive a high level of concern and support by the organization, and are satisfied with workplace conditions, feel a sense of indebtedness and a need to reciprocate in terms that will benefit their organizations/management. Research findings along this line of argument in both social

psychology and the organizational field have confirmed that one type of prosocial behavior brings about other types of pro social behaviors due to the personal values obtained through the socialization process.

Organizational researchers have therefore found satisfied workers to be more actively involved in activities that are considered as facilitative to organizational goals as their dissatisfied work mates. Thus relative to their dissatisfied colleagues, satisfied workers are more likely to positively adhere with safety-related practices

2.3 EMPIRICAL REVIEW.

2.3.1 Safety and Health Training

Various scholars have stated training as a subset of education. B. M. Sababu (2010) states that training is valued for its practical uses and is intended to improve the mental and physical performance skills given for a task, duty or job. He further states that the main objective of any training is the improvement of behavior so that the trainee becomes more useful to the organizational tasks and himself. One of the most important objectives of training is to reduce the problems which are associated with supervision of employees. A well designed training program enhances employees' abilities to embrace better working methods and also helps them to adjust to changes in both the content and context of the teaching or any assigned job

There are 2 types of training methods

- On the Job Training

This basically happens when the employee/trainee learns various aspects of the task or concept while actually performing those tasks or practicing the concepts. These are such as Apprenticeship, Job Rotation, Mentoring and Understudy.

- Off the Job Training

Off the job training is composed of methods that employees undergo while outside their work environments. These off job trainings include seminars, special courses, role playing, simulation, conference training and special meetings

Safety & Health Trainings

Safety and health training therefore is the proactive process of teaching employees of an organization on the various risks pertaining to their tasks and the various methods or measures that have been put in place to minimize the risk of injury or illness.

Types of Safety and Health Training

A. Formal Health and Safety Training

There are basically four types of formal health and safety training:

- License or Certificate Courses

Certain tasks require the employee or personnel to hold an officially recognized certificate or license to do the required tasks like operating a steam boiler, driving a crane or working on a construction site. Training for these certificates or licenses is mostly provided by an accredited trainer and assessment is carried out by a qualified assessor. Assessment can take place either at work or a place or center where trainings are usually conducted.

- Approved Courses

Courses like introductory training courses for health and safety representatives may be classified as approved by law. Courses for managers and supervisors may also be classified as approved. Approved courses have to meet certain criteria determined by the relevant health and safety authorities.

- Short Courses

Short courses may be designed for a specific group of people such as operators of equipment, employees, managers and supervisors such as general introductory courses on topics such as hazard management and training courses on legal obligations and how to manage health and safety in the workplace and also courses on giving general introduction to basic health and safety principles

- Vocational and Professional Courses

There are health and safety courses for training health and safety professionals and managers in universities or colleges. These courses usually involve part-time study or a certain duration so as one to get qualification in health and safety.

Bodies that provide training?

- Employer organizations
- Unions
- International Labor Organization or its affiliated bodies
- Colleges and Universities
- Private occupational health and safety Consultants/Trainers

B. Informal Health and Safety Training

- Supervisor/ Experienced Personnel

A supervisor or experienced worker who has skills and knowledge in health and safety may also provide training. This type of training can be provided at work.

2.3.2 Safety and Health Programs

According to WorkSafeNB (2014) a health and safety program is an organized, written action plan to identify and control hazards, define safety responsibilities and respond to emergencies that result in the prevention of accidents and occupational diseases. Joshua Abong'o Okumbe in his book "Human Resource Management: An Educational Perspective" states that safety programs deal with the prevention of accidents as well as minimizing damage and loss to employees and facilities. The objective of a program is to integrate safety and health into all work practices and conditions. An industry that incorporates safe work practices into its daily work routine can realize savings in human and financial costs. An example are accident prevention programs

A safety and health program is legally required under the OSHA Act of 2007. A health and safety program requires employers to consult with employees in the development, implementation and monitoring of the program. Mainly the people doing the work are responsible for creating a healthy and safe workplace. No matter where or who the person is within the organization, they can address safety in a way that fits with what they do. Every person takes initiative to improve health and safety. An organization cannot reasonably monitor the safety activities of each and every personnel or workplace. Employers and employees must work together to develop workplace health and safety programs and ultimately must take responsibility for their own safety.

The employer is responsible for

- Developing
- Implementing and
- Monitoring the health and safety program.

However, the law requires involvement and participation of employees before implementing a safety program.

On top of the employer's responsibilities on the employee safety, hygiene and welfare, the employees have the duties to take reasonable care to avoid injury to themselves or to others as a result of their activities at work (B. M. Sababu 2010). Employees should use appropriate safe

systems of work as well as protective appliances and clothing required for work. Employees must also cooperate with the employer in respect to health and safety matters.

2.3.3 Safety and Health Policies

A workplace policy is a set of rules and principles that aims to guide managers and workers in how to behave in the workplace, they may also be put in place for numerous different issues such as bullying, harassment, internet use, health and safety and even social media.

A Health and Safety Policy sets out the general approach and commitment together with the arrangements that have been put in place for managing health and safety in the organization. It is a unique document or manual that says who does what, when and how.

The Canadian labor website, servicenl.gov.nl.ca, states that a health and safety policy is a written statement by an employer stating the company's commitment for the protection of the health and safety of employees and to the public. It is an endorsed commitment by management to its employees regarding their health and safety.

Reasons for Health and Safety Programs or Policies in the Workplace

There are several reasons why workplaces need a health and safety policy or program, these include:

- To clearly demonstrate management's or organization's commitment to their employee's health and safety.
- To show employees that safety performance and business performance are compatible.
- To clearly state the company's safety beliefs, principles, objectives, strategies to all levels of the industry.
- To clearly outline employer and employee accountability and responsibility for workplace health and safety.
- To comply with the Occupational Safety and Health Act.
- To set out safe work practices and procedures to be followed to prevent workplace injuries and illnesses.

2.3.4 Safety and Health Communication

Wikipedia refers to communication as a subfield of the larger discipline of communication studies. It further states that organizational communication, as a field, is the consideration,

analysis, and criticism of the role of communication in organizational contexts. Its main function is to inform, persuade and promote goodwill.

Types of Communication in the Organization

- Formal
- Informal

Formal Communication

Communication through officially designated channels of message flow between organization positions

Usually found in organizational charts, policy manuals, or hierarchical structures

There are 3 types of Formal Communication

- Downward Communication - This is communication that flows from upper to lower (such as manager to employee or superior to subordinate).

Types of messages in this type are job instructions, procedures and practices information, feedback, and indoctrination. (Katz & Kahn, 1978)

- Upward Communication - This communication involves the transmission of messages from lower to higher levels of the organization (such as communication initiated by subordinates with their superiors).

Types of messages in this type are in regards to performance on the job, job related problems, fellow employees and their problems, subordinates' perceptions of organization policies and practices, tasks and procedures.

- Horizontal Communication - This involves the flow of messages across functional areas at a given level of an organization (this permits people at the same level to communicate directly).

Type of messages in this type are in regards to facilitates problem solving, info sharing across different work groups, task coordination between departments and project teams.

Informal Communication

This includes episodes of interaction that do not reflect officially designated channels of communication.

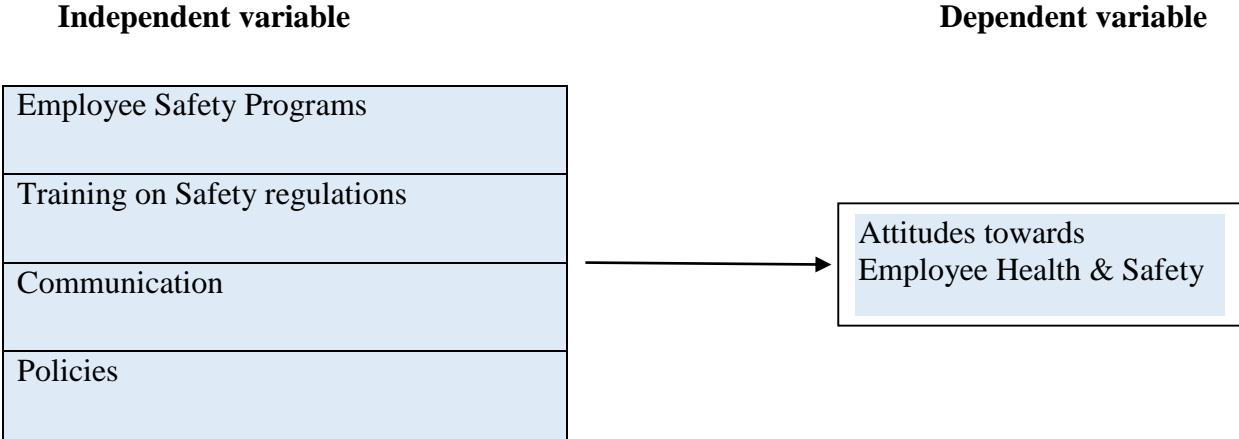
This involves the social and personal interests of the employees rather than formal requirements of the organization. Informal communication is inherent and even a necessary aspect of organization life.

Good communication is vital in all fields of industry, not least with regard to health and safety. All staff must be fully aware of their obligations and of procedures for health and safety. In addition, plastics is a business in which many different trades meet and work together on single projects; they will have their own particular health and safety needs, and concerns and clashes can occur. Health and safety policy must be established at the beginning or early stage of a project in the organization and lines of communication must be clear.

2.4 CONCEPTUAL FRAMEWORK

This shows how the independent variable interconnects with the dependent variable.

Table 01 Conceptual Framework



Source: 2016

Human factors have been widely recognized as playing a significant role in the safety performance of organizations. Previously, interest in the contribution of human factors to an organization’s safety performance focused on the physical aspect and its relationship to operators. This remained to be the case when concern shifted to the examination of cognitive factors in which tasks were considered in relation to their ability to elicit human error (Reason 1990).

While the task and hardware approaches played a significant role in the great improvements in industrial safety up until the 1980s, many organizations’ accidents have been found to remain at a persistent level with further improvements becoming seemingly impossible. As a consequence of this, new approaches were sought, and attention began to move towards safety attitudes, climate and culture within organizations. A study carried out by the Safety Research

Unit (1980s) demonstrated a clear correlation between attitudes and safety performance. As a result of this and other research it is now reasonably well accepted by experts and researchers in the field as well as organizations that attitude plays a part in accidents.

Studies have indicated that workers who have more positive attitudes towards safety are less likely to be involved in accidents. The concept of “safety culture” is often used interchangeably with safety climate, in the sense of reflecting employees' attitudes towards safety (Cox and Cox, 1996). There is a significant relationship between safety climate and workplace accidents. Empirical studies have tested this relationship between safety climate and accidents, demonstrating a significant relationship between the safety climate and accidents (Tomas et al., 1999). Further studies have examined the links between safe behaviors and safety climate, including involvement in safety activities (Cheyne et al., 1998), safety compliance and safety participation (Neal et al., 2000), which provide positive support for a significant relationship.

As it is continually established that people are a key resource to the organization especially in terms of competitive advantage, organizations and managers view training as an investment in their people, not an expense. A manager would prefer their staff to have the best skills and the broadest understanding of the organization, its values and also its customers [Gomez-Mejia, Balkin, Cardy 2004]. Training therefore enhances the skills and understanding of the employees which in turn changes their attitudes towards various aspects of their work and the organization as a whole. Studies have demonstrated a strong relationship between safety training of workers to their attitudes which also results to a positive increase in their safety performance. Pertaining to this is the propensity of training to reduce conflict between workers with their organizations in that employees positively embrace the set programs (Cheng and Ho 2001) which include safety and health programs.

The role of communication has also been studied in relation to safety performance. Effective communication between managers and the workforce regarding health and safety issues has been highlighted as an important factor in the success of safety interventions (Harper et al., 1997; Tan-Wilhelm et al., 2000). Parker et al. (2001) conducted a longitudinal study of 161 manufacturing employees' self-reported safe working practices; they found that communication had a significant positive relationship with their attitudes on safe working. Zohar (2002) argues that supervisors who demonstrate greater individualized consideration in their supervisory practices encourage open, informal safety communication, which in turns affects injury rate.

Thus, although a few studies have failed to support a negative relationship between communication and accident rates (Siu et al., 2001), the majority of the literature would suggest that poor job communication is significantly predictive of work accidents and unsafe behaviors due to the various mixed employee attitudes and perceptions.

2.5 RESEARCH GAP

Most of the research that has been done on the topic of occupational health and safety especially in the African region specifically in Kenya has been largely focused on management/employers and the most burden has been on them to ensure safety and health measures are developed and implemented. However, little has the focus been towards the employees in terms of their perceptions and compliance towards health and safety.

A point to note is that although the Occupational Safety and Health Act of 2007 require employees to comply with the health and safety measures and report any occurrences or shortcomings, it has put most of its focus on the employers more than the emphasis on employees. Every worker is equally responsible for their own safety in the workplace. A large number of accidents in the workplace have occurred due to employee negligence and research has shown that this is because of the safety climate or employee attitudes (Zohar 2002).

This research therefore aims to fill the knowledge gap on how the safety programs, safety and health trainings, the safety and health policies and communication on health and safety affect the attitudes of employees towards health and safety. It will help in reduction of accidents and incidents that occur in various manufacturing fields because of improved attitudes of workers on health and safety which results to increased cooperation and coordination so as to lead a better safety and health performance.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

The research will look at a methodology that will be applied to conduct the study. It describes the research design, the target population, the sampling techniques, and data collection methods and data analysis techniques.

3.2 Research Design

A good research design is the one which provides answers to the research questions validly, objectively and accurately. (Mugenda and Mugenda 1999) defines a research design as the plan and structure of investigation so conceived on to obtain answers to research question. The study is carried out as a case study. A case study is an empirical enquiry that is used to investigate a contemporary phenomenon in its real life context (Shuttleworth 2008). This is because the researcher is concerned with one particular organization (SIL) and because this type of design saves time as the research is being conducted and enables in-depth insight that will help in the large industrial sector.

3.3 Target Population

Population is defined as the total selection of elements about which the researcher wants to make some inferences (Cooper & Schindler 2002). The target population was a group of respondents that the researcher felt they offer necessary information required in the study. The target population was composed of the low cadre employees. The total target population was 200.

3.4 Sample Design & Size.

Sample size in the researcher's study comprised of select employees or the main stakeholders who are majorly affected by the safety and health climate of (SIL) Sumaria Industries Limited: Industrial Area with adequate number to give the best results. Mugenda and Mugenda (2003) also stressed that a sample size of 10% to 30% is sufficient for a research study. Thus the researcher considered 50 respondents which were 25%.

3.5 Sampling Procedures.

The sampling technique that was used is random sampling method in which the key elements of the population have a fixed or a known chance of being selected for study. The sample population was based on employees or workers on the ground by which random sampling was used to draw sample from.

Table 2 Sampling Design and Sample

Category	Sample (25% of Total Population)	Percentage (%)
Employees (Non-Management)	50	100%
TOTAL	50	100%

Source: 2016

3.6 Data Collection Method

The instrument for data collection was questionnaires. Data was collected from primary sources through questionnaires. The questionnaires were distributed to respondents and collected later. The questionnaire consisted of close ended questions. Questionnaires were used because they gather information over a large sample, it saves time and it is easy to analyze and the research allow the respondents to give response in a free environment.

3.7 Data Analysis

The use of Excel method being the best was used since it helps the researcher in making smart decision, solving problems and improving the outcomes. Quantitative analysis method was used to report the findings. The results will be presented using descriptive statics including tables, frequency distribution diagrams and percentages.

3.8 Limitations of the Study

- The nature of work of the employees did not avail them much time to be interviewed or fill the questionnaires conclusively.

3.9 Research Ethics

Data was treated as confidential as there was bound to be some fear among respondents in losing their jobs or giving information to competitors. The rights of the respondents were observed and no force was used to get information. The name were not required for confidentiality and responses were only used for this study. The researcher also adhered to all the ethical standards set and that no respondent was coerced into participating in the research.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 INTRODUCTION

This chapter deals with data analysis, interpretation and presentation of findings. The study intended to analyze the employee attitudes on health and safety in the manufacturing sector in relation to the existing safety and health measures, in the case of Sumaria Industries Limited: Industrial Area. The data was primarily collected from the field and is presented and analyzed in line with the objectives of the study. The researcher was guided by the following objectives:

- a. How do the employee safety programs in the organization influence employee attitudes towards health and safety at the workplace?
- b. What is the impact of safety and health training on employee attitudes towards health and safety?
- c. How do health and safety policies influence employee attitudes on health and safety in an organization?
- d. How does communication influence employee attitudes towards health and safety attitudes in the organization?

4.2 Demographics

4.2.1 Gender

Question 1 required respondents to indicate their gender. The table represents the data received to this question

Table 3 Gender Response

Gender	Frequency	Percentage
Male	46	92%
Female	4	8%
Total	50	100%

Source: 2016

From the above table it can be seen that there are more males that participated in the study than females who are only 8% out of the whole sample population. This is also an indicator of a bigger presence of males in the low cadre roles that require more of manual duties.

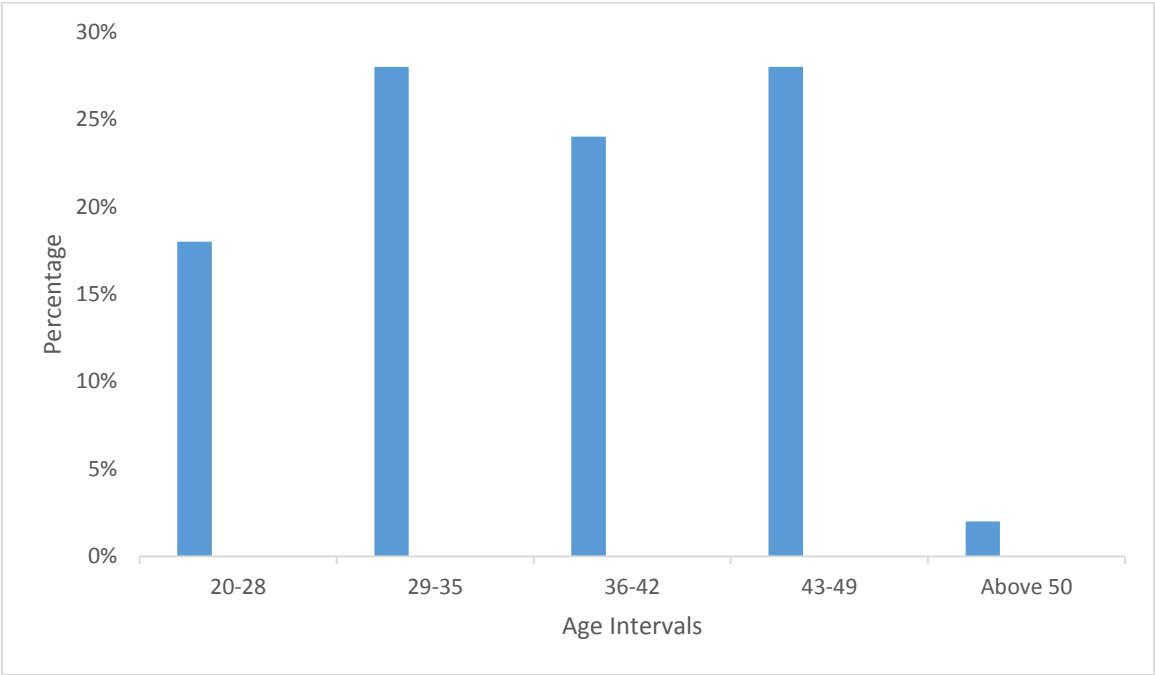
4.2.2 Age interval

The question required respondents to fill in their age intervals. Results were as shown

Table 4 & Figure 5 respectively depicting age intervals

Interval	Frequency	Percentage
20 – 28 years	9	18%
29 – 35 years	14	28%
36 – 42 years	12	24%
43 – 49 years	14	28%
Above 50 years	1	2%
Total	50	100%

Source: 2016



Source: 2016

4.2.3 Education

This question required the respondent to fill their educational level. According to the results of the collected data, most of the employees or non-managers have reached a higher level education with 52% of respondents attaining college level education. University level was 22% of the respondents while none having reached masters or having stopped at primary education with both segments at a zero percentage (0%). This is a good indicator since it shows that most of the respondent filling the forms are learned individuals who have the necessary abilities to fill the inquiries on the questionnaire tool with soundness of mind. This ensures the accuracy and authenticity of the data collected.

4.2.4 Department

Respondents were required to fill in their respective departments. These departments were categorized to three (3) mainly the Engineering department, the Production department and Quality control department. Members of the engineering department were 36 coming at 24%, quality control department that filled the tool were 26% of the sample population and the production department had the most respondents totaling 50% of the sample population.

4.2.5 Duration

The table below shows the statistical data of the responses given by the respondents which was inquiring on their duration of employment with the plastic manufacturer.

Table 6 showing duration of employment

Duration	Frequency	Percentage
Below 1 year	9	18%
1 – 3 years	16	32%
3 – 6 years	14	28%
6 – 10 years	2	4%
Over 10 years	9	18%
Total	50	100%

Source: 2016

4.3 Industrial Health and Safety

4.3.1 Effect of work on worker safety and health

The question required respondents to indicate whether their work has any effect on their health and safety. Most of the respondents indicated that their work has an effect on their health and safety by 94% (Yes) while the ones with no health effects were 6% (No) of the population.

Table 7 showing the effect of their work on their health and safety

Effect on Individual Health & Safety	Frequency	Percentage
Yes	47	94%
No	3	6%
Total	50	100%

Source: 2016

4.3.2 Rate the safety and health of employees in Sumaria Industries Limited

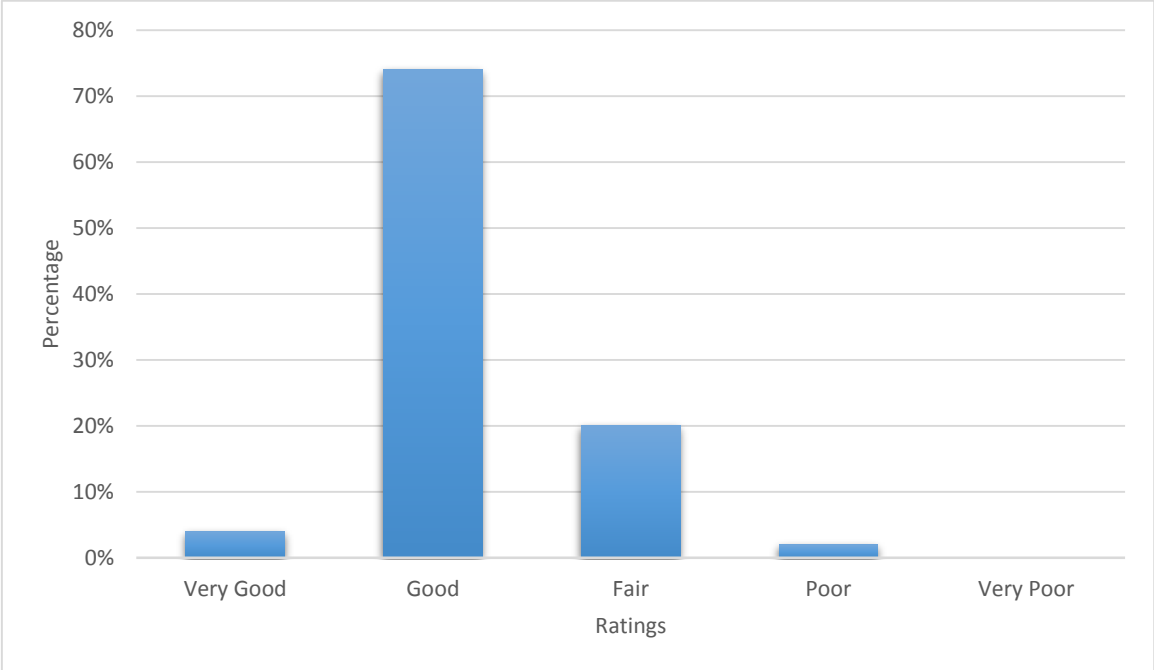
This question required respondents to rate the safety and health of employees in Sumaria Industries Limited. The results are as shown in the diagrams below

Table 8 & Figure 9 showing safety and health rating of respondents in Sumaria Industries respectively

Rating	Frequency	Percentage
Very Good	2	4%
Good	37	74%
Fair	10	20%
Poor	1	2%
Very Poor	0	0
Total	50	100%

Source: 2016

The histogram below shows a more vivid orientation of the responses on the rating of health and safety in Sumaria Industries Limited.



Source 2016

4.3.3 Effectiveness of Safety and Health Measures in Sumaria Industries Limited

Respondents were required to rate the effectiveness of the measures of health and safety in Sumaria. The responses indicated are as follows:

Table 10 showing the effectiveness of health and safety in Sumaria Industries

Rating	Frequency	Percentage
High	10	20%
Moderate	40	80%
Low	0	0
Total	50	100%

Source: 2016

4.4 Safety Programs

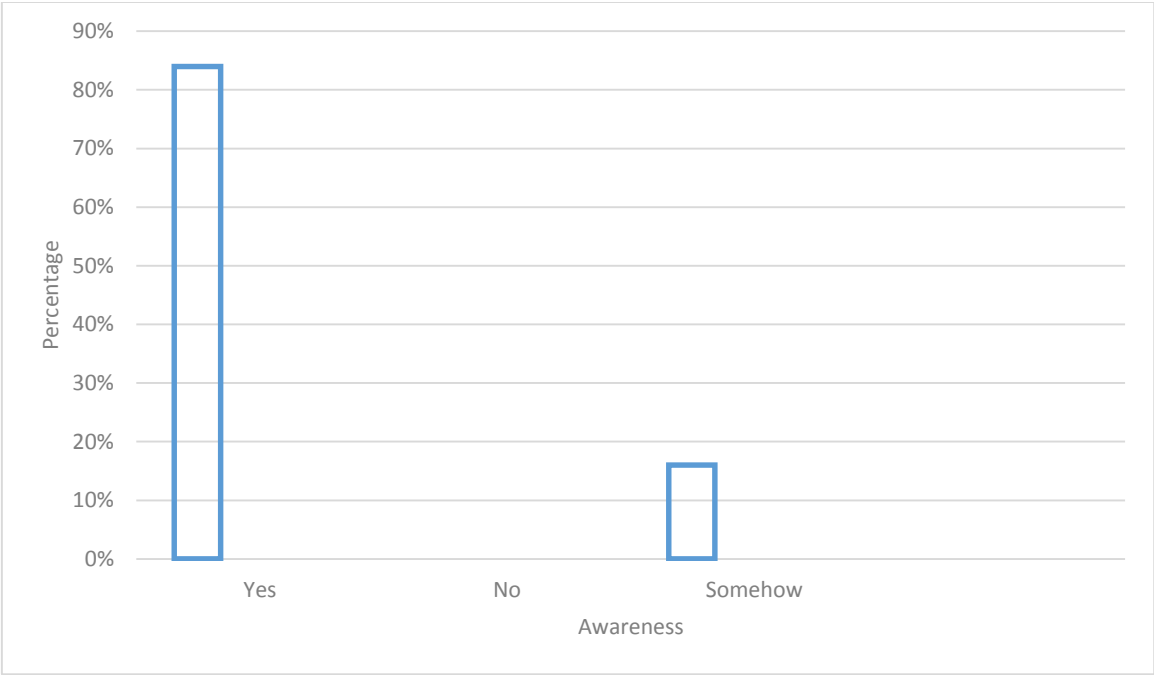
4.4.1 Awareness of Safety and Health Programs in Sumaria

Respondents were required to indicate on whether they were aware of the safety and health programs in Sumaria

Table 11 and Figure 12 showing the awareness of respondents on safety programs of Sumaria Industries

Awareness of Safety and Health Programs	Frequency	Percentage
Yes	42	84%
No	0	0
Somehow	8	16%
Total	50	100%

Source: 2016



Source: 2016

This generally exhibits that the safety communication factor is at a positive inclination. This is because as the analysis shows 84% of the sampled population are aware of safety programs. According to the extracted data shown, no respondent did not have knowledge of safety programs as the percentage is zero (0%) and the ones with a slight knowledge are only 16% of the respondents. Therefore, this indicates that the communication on safety is actively relayed to the employees in the company.

4.4.2 Effectiveness of the Safety Programs

This question required the respondents to indicate how effective the safety programs at Sumaria are. Most of the respondents indicated that the safety programs are effective while few others indicated that the programs are fairly effective. A smaller percentage also indicated that the safety programs are highly effective. However, there was no indication to show that the safety programs were not effective which is a positive attribute to the organization.

The table indicates the percentages as indicated in the collection tool.

Table 13 showing the effectiveness of safety programs

Effectiveness	Frequency	Percentage
Very Effective	3	6%
Effective	36	72%
Fairly Effective	11	22%
Not Effective	0	0
Total	50	100%

Source: 2016

4.4.3 Safety and Health relationship with fulfillment of job target

This question required respondents to indicate on whether the fulfillment of their job target is motivated by the need for good health and safety.

Table 14 showing Safety in relation to job target fulfillment

Rating	Frequency	Percentage
Strongly Agree	5	10%
Agree	44	88%
Not Sure	0	0
Disagree	1	2%
Strongly Disagree	0	0
Total	50	100%

Source: 2016

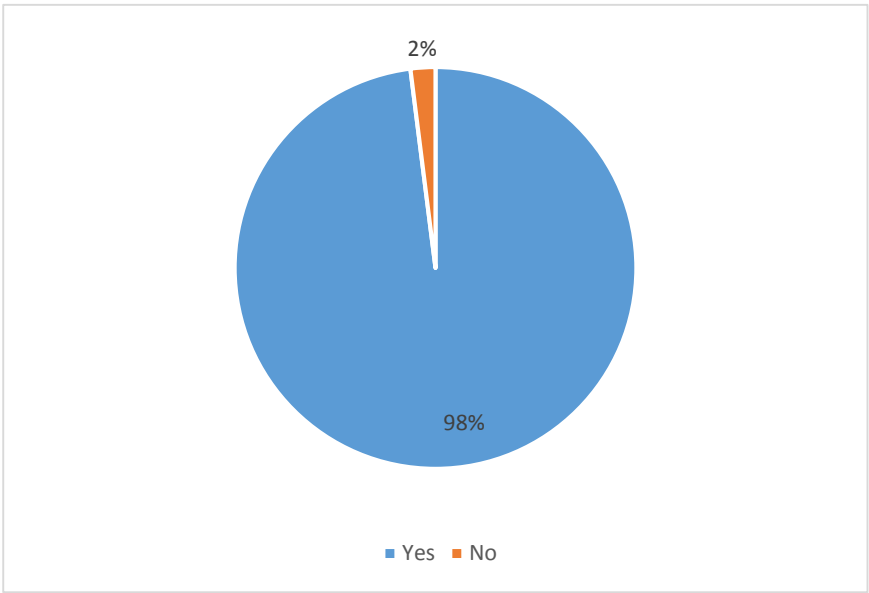
As the above diagram indicates, most of the employees at Sumaria agree that their job target fulfillment is motivated by the need for good safety and health while a 10% of the sampled population strongly agree to this aspect. However, a 2% of the population do not agree on whether the fulfillment of their job target is motivated by the need for good health and safety.

4.4.4 Job environment maintenance

In this question, respondents were required to indicate whether they would leave their job if their working environment is not highly maintained. The pie chart below explains the results as indicated by the respondents.

Figure 15 depicting the relation between respondent jobs and their working environment

Source: 2016



4.5 Safety Trainings

4.5.1 Awareness of Safety Trainings

This question required respondents to indicate whether they have a knowledge on safety training(s)?

Table 16 showing employee awareness on safety training

Awareness	Frequency	Percentage
Yes	49	98%
No	1	2%
Total	50	100%

Source: 2016

98% of the respondents indicated that they know about safety trainings. This shows that there is general literacy of safety trainings in the organization.

4.5.2 Safety Trainings done

Respondents were required to indicate on whether they have had any safety training with Sumaria industries since they joined the organization. The responses are shown as follows

Table 17 showing whether respondents have had trainings

Have you had any safety training(s)?	Frequency	Percentage
Yes	46	92%
No	4	8%
Don't remember	0	0
Total	50	100%

Source: 2016

4.5.3 Participation of training

Respondents were required to indicate when the last time they had a safety training with the organization was. The table below shows the responses indicated

Table 18 showing training participation

Interval	Frequency	Percentage
Within 6 months	36	72%
1 year	13	26%
2 years	0	0
5 years	1	2%
10 years	0	0
Total	50	100%

Source: 2016

The figures indicate that most of the respondents or employees have had a training within the previous 6 months. This is a good indicator meaning that the organization does not only conduct trainings but also it is actively involved in periodic trainings.

4.5.4 Fire drill

Respondents were required to indicate on whether they know what a fire drill is. This was posed so as to determine if the respondents have a knowledge on the basic safety trainings since fire drill is a very important and vital safety training.

The response was as shown in the diagram

Table 19 indicating fire drill awareness

Do you know what a fire drill is?	Frequency	Percentage
Yes	49	98%
No	1	2%
Total	50	100%

Source: 2016

4.6 Safety Policies

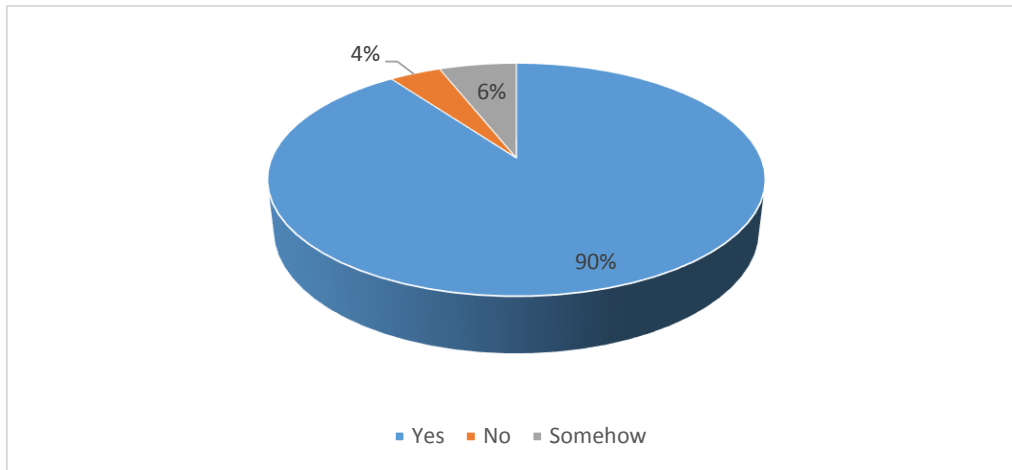
4.6.1 Awareness of safety policies

The respondents were required to indicate on whether they were aware of the company policies on safety on safety and health. The responses were indicated as follows:

Table 20 & Figure 21 depicting awareness of policies

Are you aware of the safety policies?	Frequency	Percentage
Yes	45	90%
No	2	4%
Somehow	3	6%
Total	50	100%

Source: 2016



Source: 2016

According to the figures, it is an indicator that the large part of the employees know about the health and safety policies of the company.

Through the figures above it can be identified that the communication on safety is clearly relayed to the employees since 90% of the respondents who are the company's non-management workers know the existing safety policies. The percentage of those who do not know is only 4% while the workers with relatively slight knowledge on safety policies of Sumaria are 6%.

4.6.2 Effectiveness of existing safety policies

In this question respondents were required to indicate the effectiveness of the current existing safety policies adopted by the company in the various sectors. The response results are as indicated as follows:

Table 22 showing effectiveness of safety policies

Rating	Frequency	Percentage
Very Effective	4	8%
Effective	33	66%
Fairly Effective	13	26%
Not Effective	0	0
Total	50	100%

Source: 2016

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter discusses the summary of the findings, the conclusions and suggests recommendations

5.2 Summary of Findings

The problem that initiated the study was the need to understand employee attitudes towards safety and health in their workplace and mainly how these attitudes are affected by the measures for safety and health put in place. It was first established that the manufacturing industry poses a lot of threats to the health of its workers since there are a lot of risks involved in working in manufacturing industries and in the general industrial sector. These threats were visualized by the identification of various accidents and incidents that have previously occurred in the industry that have even led to death of workers. However, it was also identified that some of these incidents were not directly the fault of the organization or management but rather the employees themselves.

A review of the relevant literature further established that these accidents that did not involve management were due to the attitudes of employees themselves (Zohar 2002). Thus meaning a change in the attitudes of employees towards matters of safety would lead to a positive change in the workplace that will reduce accidents and incidents that occur due to employees' mistakes.

The research sought to determine the impact of the safety measures on employee attitudes. The findings of the study which based on the case of Sumaria Industries Limited: Industrial Area were primarily extracted by the use of the questionnaire tool. These findings are based on the objectives of the research.

The study identified that most employees in Sumaria are well aware of health and safety programs existing in their organization. Also the rate of effectiveness of the safety programs in Sumaria is high as a bigger part of workers generally rated positively towards this. The study also identified that the fulfillment of the job target of most employees is motivated by the need for good health and safety. Most employees at Sumaria are also vigilant as they responded that they would leave their jobs if their working environment was not well maintained.

The study was able to determine that most employees at the plastic manufacturer know about safety trainings. This is vital since many workers still do not understand safety trainings or its importance to their own safety and health while working with any organization hence affecting their attitudes towards health and safety issues. It was identified that most employees have had a safety training with the manufacturer in their course of employment with the manufacturer (it is important to note that most respondents of the questionnaire have been in employment with the manufacturer for just 3 years). The trainings were positively periodical as most of the respondents have last participated in a training within 6 months ago prior to the questionnaire. It was also determined that most of the respondents knew what a fire drill is.

The study identified that most of the respondents or workers of the manufacturer are actively aware of the existing company policies on safety which was about a 90% of them. This is generally a good factor since it exhibits employee reliability and accountability in matters of their own safety and their own health at their workplace. The ratings were generally positive in terms of how the respondents viewed the effectiveness of the safety policies which the company has adopted.

The study also identified that communication on safety matters was generally positive in the organization. This was exhibited in the way respondents had an acute awareness of safety and health matters and measures such as their good knowledge on safety programs, safety trainings and the safety policies of their organization.

5.3 CONCLUSION

The study concludes that safety and health measures such as the safety programs, such as trainings on safety, such as safety polices and measures such as communication on health and safety issues greatly affect or impact or influence the attitudes of employees on the aspect of their own safety and health at work. Therefore employees can be directly impacted by safety and health measures to improve their attitudes so as to reduce accidents and injuries at the workplace. This is highly vital because it ensures that accidents or injuries that could be avoided do not happen at the workplace. This study shows that safety and health measures can bring about a positive work environment which encourages employee participation and proactivity in regards to safety matters which results to reduction of accidents or injuries due to factors such as negligence. Ultimately this will be a benefit to both parties which are the employer and employees because injuries and accidents are a cost to both the parties.

5.4 RECOMMENDATIONS

It is recommended therefore that health and safety measures such as safety trainings should be promoted by organizations because they improve employee attitudes as shown by Sumaria Industries Limited: Industrial Area which has seen a great minimal of accidents because of adopting to promote safety and health measures.

Improvement of safety and health in the organization and related measures should not necessarily be viewed as a cost but as a means of reduction of unforeseen costs which may be much greater.

APPENDIX I

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APPENDIX II

INTRODUCTORY LETTER TO THE QUESTIONNAIRE

Dear Sir/Madam

RE: REQUEST TO COLLECT RESEARCH DATA

I am a student of Marist International University College, pursuing a bachelor's degree in Business Management (Human Resource) course. As part of the course requirements, I am required to conduct research in my area of specialization and my research title is "Employee Attitudes on Safety and Health Measures in the Manufacturing sector, The Case of Sumaria Industries Limited."

I therefore request for your assistance and participation in the research by providing the data through filling the questionnaire attached to this letter. I wish to reassure you that this is purely an academic research and the information collected will be handled with utmost confidentiality.

I look forward to your assistance and participation in this matter.

Thank you in advance.

Yours faithfully,

EMMANUEL EVARIST SILAYO

APPENDIX III
QUESTIONNAIRE

This questionnaire has been designed to collect information from the staff of Sumaria Industries Limited and is meant for academic purpose only. The questionnaire is divided into 5 (five) sections. Please complete each section as instructed.

Section A: Demographic data.

1. Gender Male () Female ()

2. Indicate age interval
 - 20-28yrs ()
 - 29-35yrs ()
 - 36-42yrs ()
 - 43-49yrs ()
 - Above 50yrs ()

3. Indicate highest level of education
 - Primary ()
 - Secondary ()
 - College ()
 - University ()
 - Masters ()

4. Indicate your department
 - Engineering ()
 - Production ()
 - Quality ()

5. How long have you worked with the organization
 - Below 1 year ()
 - 1-3yrs ()
 - 3-6yrs ()
 - 6-10yrs ()
 - Over 10yrs ()

Section B: Industrial Health and Safety

1. Does your work have any effect on your health and safety?

Yes (), No ()

2. How would you rate the health and safety of employees in Sumaria Industries Limited?

Very Good ()

Good ()

Fair ()

Poor ()

Very poor ()

3. How would you rate the effectiveness on health and safety measures of Sumaria Industries Limited?

High ()

Moderate ()

Low ()

Section C: Employees safety programs

1. Are you aware of the health and safety programs at Sumaria Industries Limited?

Yes () No () Somehow ()

2. How effective are the safety programs of Sumaria Industries Limited?

Very effective ()

Effective ()

Fairly effective ()

Not effective ()

3. Is the fulfillment of your job target motivated by the need for good health and safety?

Strongly Agree () Agree () Not sure () Disagree () Strongly Disagree ()

4. Would you leave this job if your working environment is not highly maintained?

Yes () No ()

Section D: Safety Trainings.

1. Do you know about safety and health training(s)?
Yes () No ()
2. Have you had any safety training since joining Sumaria Industries Limited?
Yes () No () Don't Remember ()
3. When did you last participate in a safety training program?
Within 6 months ago ()
1yr ago ()
2yrs ago ()
5yrs ago ()
10yrs ago ()
4. Do you know what a fire drill is?
Yes (), No ()

Section E: Safety Policies.

1. Are you aware of the policies of the company on safety?
Yes () No () Somehow ()
2. What is your view on the existing safety policies of the company?
Very effective ()
Effective ()
Fairly effective ()
Not effective ()

