

**INDUSTRIAL ACCIDENTS AND EMPLOYEE PERFORMANCE IN  
KENYA PETROLEUM OIL REFINERIES LIMITED (MOMBASA).**

**BY**

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**A RESEARCH DISSERTATION SUBMITTED TO THE SCHOOL  
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INTERNATIONAL  
UNIVERSITY.**

**June, 2010**

### DECLARATION

I, Patricia Ochieno declare that this dissertation is my original work and has never been submitted to any university for any award. The work was under supervision of John Baptist Baliruno and it is ready for submission to be evaluated for the award of Bachelors of Human Resource Management of Kampala International University.

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### APPROVAL

This is to certify that my dissertation has been accepted and verified by the University supervisor and submitted with approval in partial fulfillment of my requirement for the award of Bachelors in Human Resource Management.

Supervisor: MR. JOHN BAPTIST BALIRUNO

Signature:  .....

Date:  .....

## **DEDICATION**

To the true women in my life:

My mother

*Mrs. Elizabeth Ochieno*

My sister

*Mrs. Judith Sitanda*

To the most inspiring and supportive mentor:

My Father

*Mr. Jack Ochieno*

With gratitude that they are the most important in my life after God.

### **ACKNOWLEDGEMENT**

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And as always, to my instrumental mentors, Mr. Jack Ochieno and Mr. John Baptist Baliruno, my deepest appreciation and respect.

## **ABSTRACT**

This study was intended to examine the industrial accidents effects on employee performance with specific reference to Kenya Petroleum Refineries Limited Changanwe, Mombasa.

The objectives of the study were to find out the relationship between industrial accidents and employee performance, examine the effects of major types of accidents that occur in the workplace and to establish the causes of minor accidents at the Kenya Petroleum Refineries. The methods used in data collection were questionnaires and the researchers ground observation.

From the findings of the study, a negative relationship between accidents and employees' performance was revealed since it is the major factor that lowers the personnel's effectiveness.

The major type of accident occurring in this organization is burns. The study also found out that human error is one of the causes of industrial accidents. It is evident that the minor cases were reported on a weekly basis and the employees needed to be trained on safety in order to control accident occurrences.

The conclusion made indicated that companies should focus on the human's need on safety in order to promote the quality of the product they deliver. This is so because minor accidents rampantly occur due to the worker's fault or his behavior during work.

The general recommendations have been made that training should be done quarterly since more ideas and skills are being invented in the competitive market. Management should provide training materials like books not only during training process but also when they are out. The supervisors, being in the best position and in daily contact with the workforce are the best people to do the training.

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## **CHAPTER I**

### **1.0 Introduction**

This chapter covered the background to the study, statement of the problem, the purpose of the study, objectives and the research questions, the significance of the study and the conceptual framework.

### **1.1 Background to the Study**

The Kenya Petroleum Refineries Limited was originally set up by Shell and the British Petroleum company (BP) to serve the East African region in the supply of a wide variety of oil products. The company was incorporated in 1960, under the name East African Oil Refineries limited. The first refinery complex which has distillation, hydrotreating, and catalytic reforming and bitumen production units was commissioned in 1963. The second refinery train was commissioned in 1974 and also has distillation, hydrotreating and reforming units ([www.kprl.org](http://www.kprl.org)).

Some idea of the financial strain of accidents can be got from the insurance premiums demanded by some insurance companies today. Accidents involve many additional costs which bite into profit margins. From the United Kingdom statistics, the engineering profession pays about 20 million pounds that is 2000 million Kenya shillings, in insurance premiums but the costs don't stop there ([www.kprl.org](http://www.kprl.org)).

An accident is an unplanned, unexpected, unforeseen occurrence (Shultz, 1986). A spanner is dropped, a load swings and a trench collapses. Strictly speaking any occurrence is properly defined as an accident even if it does not cause an injury, for example, the spanner falls harmlessly to the ground. All such occurrences whether they cause injuries or not should be investigated and steps taken to prevent recurrence.

The root cause of accidents is that someone somewhere had made a mistake. This mistake may immediately cause an accident. For example, one man drops a hammer which hits another man below or it may create unsafe condition which if not removed may cause an accident at a later date. Another example is when a workman leaves pieces of wood lying around with nails sticking through them later another man steps on the wood and a nail goes through his boot or foot.

Accidents lower morale, waste materials, damage plant, delay progress and increase onsite costs. Indirect costs such as these can amount to the victims, even a minor injury can cost up to Kshs. 3000 when you add up all the incidentals, people's time and equipment used. A major accident can cost millions of shillings ([www.kprl.org](http://www.kprl.org)).

Safety pays, it costs much more to have an accident than it does to prevent one happening. Accident free working area promotes good morale and produces a contented labor force.

To a large extent, industrial accidents pose negative impacts on the performance of the employees. This is because when an employee is exposed to a hazard at the workplace he may end up harming himself and others in the process. Employee performance can be affected due to the strains and twists he might get, toxicity by inhalation of chemicals, electric shock, falling from ladders and stress due to noise and that could affect the productivity of the organization, there could be lawsuits, the organization will have bad publicity and in the long run, all employees working potential may be threatened due to the colleagues who are accident prone, Beach, 1985.

## **1.2 Statement of the Problem**

Refining oil is a dangerous line of work involving volatile chemicals under high pressure at searing temperatures. When properly handled, an oil refinery is generally a safe place for workers and nearby residents. However, some oil companies, either by negligence or cost cutting measures, operate facilities that are not safe. The dangers are myriad: falls, explosions, burns, toxic chemical exposures are just a few of the common personal injuries are caused by oil companies who put lives at risk ([www.kprl.org](http://www.kprl.org)).

Kenya Petroleum oil Refineries is a source of large chemical releases during fires, explosions, upsets and spills. During these accidents, many thousands of dangerous chemicals can be released in a short period of time. These cause health problems to the employees and the community. Moreover, the construction equipment like cranes, scaffolding, derricks, hoists, boilers, power tools, ladders, winches and even conveyers have posed a risk to the workers ([www.kprl.org](http://www.kprl.org)).

This inspired the researcher to conduct the study on industrial accidents at the Kenya Petroleum Refineries.

### **1.3 Purpose of the Study**

The purpose of the study was to find out the relationship between industrial accidents and employee performance in the Kenya Petroleum Refineries limited.

### **1.4 Specific objectives of the study**

- To find out whether there was relationship between industrial accidents and employee performance.
- To examine the effects of accidents on performance.
- To establish the causes of accidents at the workplace.

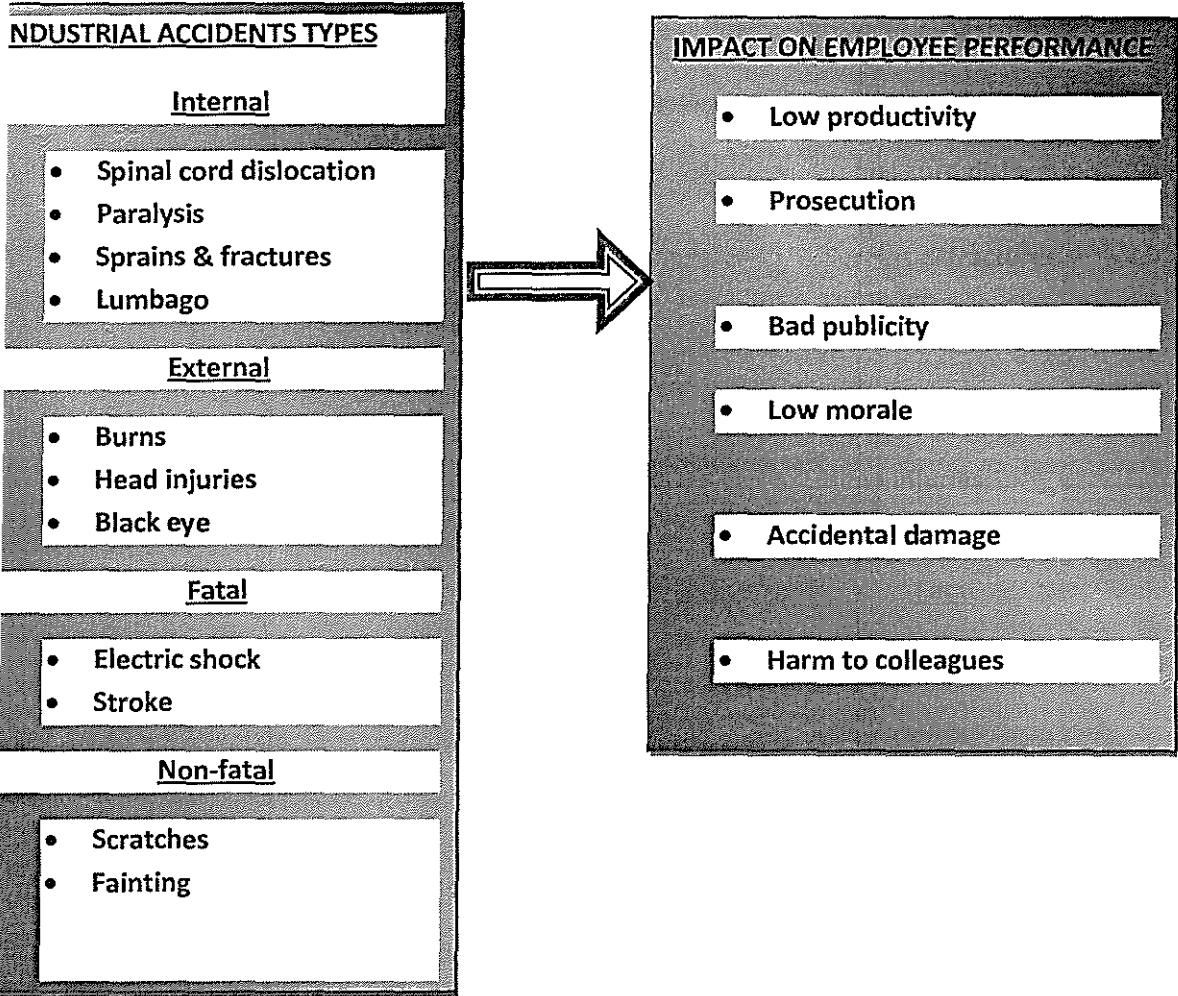
### **1.5 Research questions**

- What is the relationship between industrial accidents and employee performance?
- What are the effects of accidents on performance?
- What are the causes of accidents at the workplace?

1.6 Conceptual Framework

INDEPENDENT

DEPENDENT



1.7 Significance of the Study

The study was expected to be a useful step ahead for academicians, Human Resource practitioners as well as managers of industrial and oil manufacturing and construction organisations, in that, safety issues take on special importance in today’s human resource management.

It is essential to control accidents so that stress can be reduced, motivation can be enhanced, satisfaction of employees derived and their performance improved so that organisations can effectively compete in the global market place. The overriding purpose of controlling accidents

at the workplace is to change the climate at work so that the human-technological-organisational interface leads to a better quality of work life.

## **1.8 Scope of the Study**

### **1.8.1 Geographical scope**

This study was carried out in Africa and specifically in the East Africa region, in the Coast Province of Kenya, Mombasa district in the Changamwe constituency. The researcher chose this area due to the availability of valid data and possible convenience to access information from the residents who are the stake holders of the organization. It took the researcher 3 months to carry out the study of accidents and how they affect the performance of the employees.

### **1.8.2 Content Scope**

Based on the area of study, the researcher collected data reflecting the impact of industrial accidents on employee performance.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter was about industrial accidents in relation to employee performance. It however entailed the views of other persons in regard to the topic as identified by the researchers. It was majorly obtained from other secondary data services.

#### **2.1 Definition of Concepts**

What is an accident? Most of us tend to think of an accident as some event that causes personal injury. But in a point of fact, an accident is an unexpected occurrence that interrupts the regular progress of an activity. In effect, it is unplanned or uncalled for break or deviation from the expected, Beach, 1985.

An accident is a negative and an unfortunate event. Many accidents take place without an injury resulting. A man may stumble while walking along an aisle yet suffer no injury, Beach, 1985.

Speculations concerning the distribution of accidents when considering the question of how accidents are distributed in the population, four distinctively different possibilities come to mind. It may be assumed that accidents will make a person more careful, hence less subjected to future accidents. It's also reasonable to assume that having an accident so upsets individuals that they will have future accidents because of a loss of confidence. The possibility also exists that some individuals constituted that they are destined to have accidents because of their biological and psychological make-up, Maier & Verser, 1982.

## 2.2 Theoretical Framework

In 1931 Heinrich postulated his famous theory of accident causation that people not things cause accidents.

The occurrence of an injury invariably results from complicated sequence of factors, the last one of these being the injury itself. The accident which caused the injury is in turn invariably caused or permitted directly by the unsafe act of a person or a mechanical or physical hazard.

Hence, he argued that;

- Industrial injuries result only from accidents
- Accidents are caused directly only by the unsafe acts of persons and the exposure to unsafe physical conditions
- Unsafe acts and physical conditions are caused only by faults of persons
- Faults of persons are created by social environments or ancestry.

He demonstrated those principles with his celebrated 'Domino theory'. Each Domino has a factor that contributes to accidents. These are;

- Social environment
- Fault of person
- Unsafe acts
- Accident
- Injury

When pushed, each Domino will have an effect on the next unless the sequence is disturbed by removing a domino.

Heinrich argued that the simplest and most effective way of presenting accident was to remove the center Domino which he called the 'hazard' (unsafe act).

In applying the theory to an accident in which a man falls off a defective ladder, the results of an investigation identify;

- The unsafe act: climbing a defective ladder
- The unsafe condition: a defective ladder
- Preventive action: removing the ladder

To a large extent, industrial accidents pose negative impacts on the performance of the employees. This is because when an employee is exposed to a hazard at the workplace he may end up harming himself and others in the process. Employee performance can be affected due to the strains and twists he might get, toxicity by inhalation of chemicals, electric shock, falling from ladders and stress due to noise and that could affect the productivity of the organization, there could be lawsuits, the organization will have bad publicity and in the long run, all employees working potential may be threatened due to the colleagues who are accident prone.

### **2.3 Relationship between Industrial Accidents and employee performance**

Performance is the way in which an activity is accomplished in a particular level of standard to which a task is to be accomplished , Thomas, 1995. This is normally carried out in the working environment. The purpose of industrial accidents investigation is to ensure that the employees' safety is promoted. The main reasons are for moral- the obligations to look after your fellow men, legal reasons , OSHA Act 1974 based on Lord Robens 1972 report- the need to comply with the legal code and economic reasons- the control of costs which occur as a result of accidents or ill health if performance is to be improved.

Accidents affect the performance of employees directly in that there will be a noticed low production. The accident prone employees may end up harming their colleagues or cause accidental damages. This will eventually lead to lawsuits and prosecution which can threaten the organizations sustainability. Accidents cause bad publicity due to the rampant cases that would occur. This may threaten the work life of employees causing low morale hence labor turn over.

If accidents are reported employee performance standards will be raised in that there will be no room for blame placing curiosity among employees, negligence or breach of duty of care. Occupational health and safety administration is a vital element in every organization because it determines the level of performance of the employees.



## **2.4 Effects of Accidents on performance**

### **2.4.1 *Electric shock***

Contact with electrical current is potentially fatal. Electricity passing through the body can cause injury to the skin and internal organs. If electricity passes through the heart, the heart muscle may be damaged and the heart's rhythm interrupted, leading to cardiac arrest.

Electric shock may affect the performance since there may be death cases which may cause low production due to inadequate personnel.

### **2.4.2 *Head injury***

Head Injury, term used to refer to traumatic head injuries, such as those suffered in falls, accidents, and other blows to the head. Concussion and unconsciousness are often immediate results of traumatic head injury. The long-term effects of head injury can be manifested in a variety of learning, speech, memory, and behavior problems.

The performance of the victim will deteriorate due to the delayed speech and low memory which may lead to wastage of organization's resources since this worker cannot grasp information promptly.

### **2.4.3 *Black eye***

Black eye is a major accident at the workplace. This normally occurs due to eye bruises. Discoloration, swelling, and pain may be lessened by applying either ice or cold, wet cloths to the affected area immediately after the injury. Because they may indicate more serious underlying conditions, three kinds of bruises warrant examination by a physician: those that are very large and very painful, those that do not result from contact with hard objects and have no obvious cause, and those that fail to disappear completely within one or two weeks. A severe black eye may be accompanied by damage to the eyeball and optic nerves, and should receive professional attention if the patient experiences abnormal vision.

This may seriously affect the performance of an employee thus making the company incur costs to rectify her vision.

### **2.4.3 Spinal cord dislocation**

Paraplegia, paralysis of both legs and often other structures in the lower part of the body. Paraplegia results from damage to the spinal cord, and the extent of the paralysis depends on the location and extent of the injury. Incomplete paralysis leaves at least a small degree of sensory awareness and motor control

### **2.4.4 Burns**

A burn is an injury to the skin caused by exposure to fire, hot liquids or metals, radiation, chemicals, electricity, or the sun's ultraviolet rays. Burns are classified according to the depth of tissue damage and extent of the burn. A first-degree, or superficial, burn, which involves only the surface of the skin, is characterized by reddening. A second-degree burn extends beneath skin surface and causes blistering and severe pain while a third-degree, or full-thickness, burn causes charring and destruction of the cell-producing layer of skin. The severity of a burn depends also on the area involved, expressed as a percentage of the total body surface area. Severe burns cause shock and loss of body fluids. A person suffering third-degree burns over more than 10 percent of body surface area should be hospitalized as soon as possible. In most cases burns cause accidental damages which are severe and permanent. The victim may not be able to perform again or he may become permanently handicapped.

## **2.5 Causes of Accidents at the workplace**

### **2.5.1 Social environment**

Both inheritance and environment cause faults of person. The environment may develop undesirable traits of character or may interfere with education. Factors like recklessness, stubbornness and other undesirable traits may be passed along through the social environment.

### **2.5.2 *Fault of an employee***

An employee may be nervous or of a violent temper. This may cause him to be ignorant about the safe practices causing scratches and sprains while working.

### **2.5.2 *Mechanical hazard***

An employee can be injured when starting machinery without warning. In most cases, insufficient light may result directly in accidents.

### **2.5.3 *Human error***

Human error can be defined as a failure of the human component of the system to meet the expected standard of performance. Such deviation could eventually lead to fatal consequences.

A misperception error can occur in rule based operation. It occurs where the person selects an appropriate sequence of behavior based on incomplete information or misperception of the information presented. This may occur where information presented is ambiguous or where a worker has strong expectations based on past experience of a situation and ignores evidence which contradicts this expectation.

## **2.6 Conclusion**

Accidents follow a pattern. The same accident occurs again and again but for any individual contractor the number of accidents will be small, presumably none at all. So, the only way to find out about the regular causes of accidents is to collect reports from all on site and analyze the results. Workers must be told of the causes of accidents and be instructed and shown how to do the job safely. They must be made to see the possible consequences of apparently harmless actions and encouraged to report defects. Carelessness, recklessness and horseplay must be stopped and the reasons given with the safety booklets to every worker as the occasion demands and as the opportunity presents itself.

Thousands of employees die every day in factories due to accidents. Accidents are partial or total, temporary or permanent. An accident free plant can save on cost, increase productivity, discharge moral commitment towards workers and comply with legal provision.

A safety program of a typical organization that has strategic steps those help in boosting and maintaining employees' health as well as for managers.

## **CHAPTER III**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents and described the methods and techniques that were used to collect and analyze data. It included the study, population, data collection instruments, processing and analysis and limitation of data.

#### **3.1 Research Design**

The researcher used both qualitative and quantitative methods of data collection analysis. This was due to the aspect of limited time and the nature of the study respondents.

#### **3.2 Area of Study**

The study was carried out in the Kenya Petroleum Refineries limited in Mombasa district. All the respondents were obtained from different departments of the organization.

#### **3.3 Study Population**

The population size of the employees was 1000 and the targeted population comprised 100 respondents selected from the different departments of the organization. The researcher acquired the sample size with reference to the educational and psychological measurement (pg. 30) publication for determining the sample size for research activities (R.V. Krejcie and Morgan, 1970). Hence, the sample size was 80 respondents (*appendix 4*). Due to the limitation of other respondents not giving the full information of the questionnaire, the response rate was 50 instead of 80.

### **3.4 Data Collection methods and Instruments**

Both primary and secondary data sources were used to collect data. Primary data sources were;

- Researcher's on ground visual observation of the coexistence status of accidents. It was also very important to gather information without asking questions by observing the employees in their natural work environment and recording their behavior and physical appearance during work. The researcher played one or two roles: one participant, the observer. As a non-participant observer, the researcher collected data in the role of a pure researcher without trying to become an integral part of an organization. The researcher also played a role of a participant observer, here, the researcher became one of the work team and in the process observed employees behavior and performance.
- Questionnaires with both the Likert scale and open and closed questions were used to collect information in respondents.

Secondary data consisted of acquisition of information from the organization's safety booklets, the firm's website as well as the organization's newsletters.

### **3.5 Data analysis and Presentation**

After the data was collected, only correctly answered questionnaire were coded, edited and analyzed. Analysis was carried out by use of frequencies, percentages and true findings presented using tables.

### **3.6 Research Procedure**

The researcher obtained an introduction letter from the Kampala International University, school of business and management to the Kenya Petroleum Refineries limited, permission was sought from the Human Resource manager of the organization to conduct the study. Participants willing to provide information were guided in the questionnaire filling process and questions were asked by the researcher for the purpose of clarification.

## CHAPTER IV

### PRESENTATION OF DATA INTERPRETATION AND ANALYSIS

#### 4.0 Introduction

In this chapter, the data collected from the field study is presented and analyzed in relation to the objectives of the study which is to find out the relationship between industrial accidents and employee performance, examine the effects of major types a of accidents on performance and to establish causes of minor accidents at the workplace.

The data is presented in theoretical, frequencies and tables and graphs though most of data is however in qualitative form due to the nature of the study. The results obtained from this data analysis assists the researcher in drawing conclusion and making recommendations.

#### 4.1 Do you think there is relationship between industrial accidents and employee performance?

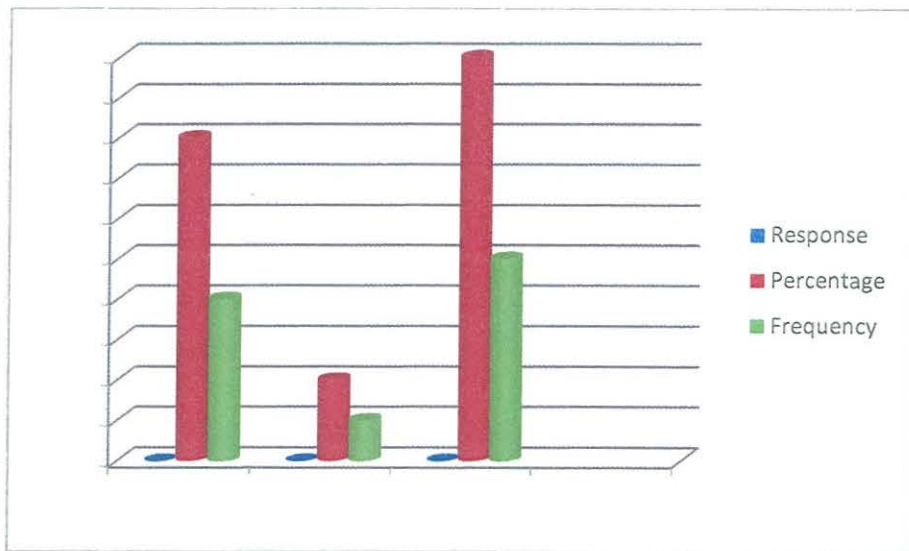
**Table 1.** The Relationship between industrial accidents and employee performance.

Response	Percentage	Frequency
Yes	80	40
No	20	10
Total	100	50

*Source: Kenya Petroleum Refineries employees*

From the table above, 50 respondents 40 (80%) said there was a relationship between industrial accidents and employee performance. On the other hand, 10 (20%) respondents said that there was no relationship between the two.

Graph 1



Source: Kenya Petroleum Refineries employees

#### 4.2 What are the effects of accidents on performance?

**Table 2.** Effects of accidents on performance

Response	Frequency	Percentage
Strongly agree	12	24
Agree	25	50
Disagree	0	0
Strongly disagree	13	26
<b>TOTAL</b>	<b>50</b>	<b>100</b>

*Source: Kenya Petroleum Refineries employees*

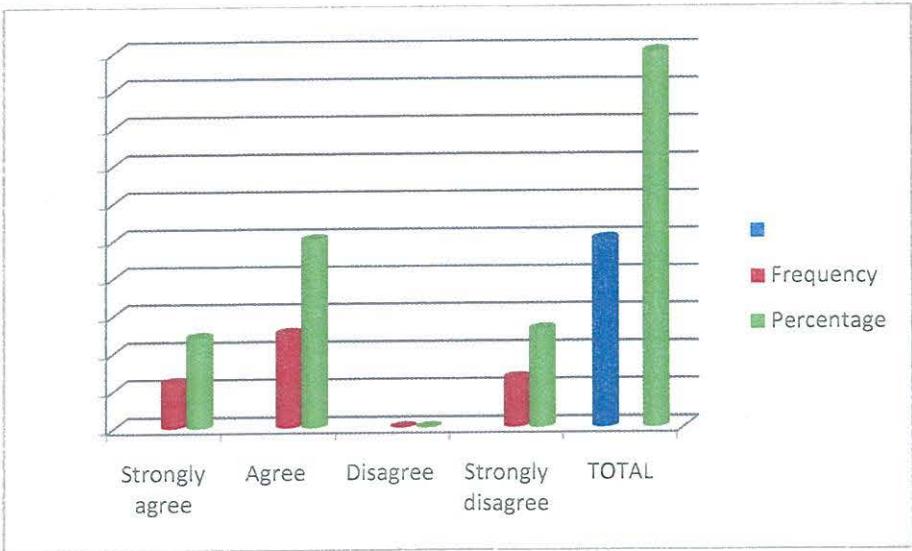
As the table 2 shows, all the respondents acknowledged that accidents affect performance.

The interview guide posed a question, “what are the effects of accidents on performance?”

Findings revealed that 25 (50%) noted agreed, 13(26%) strongly disagreed and 12(24%) strongly agreed.



Graph 2.



Source: Kenya Petroleum Refineries employees

4.3 What are the causes of the minor accidents at the workplace?

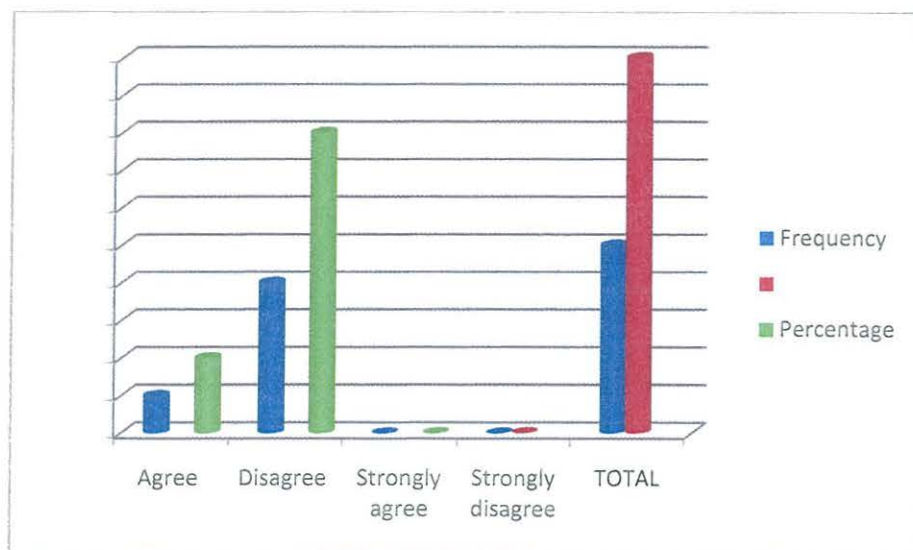
Table 3. Possible stated causes of minor accidents at the workplace.

Response	Frequency	Percentage
Agree	10	20
Disagree	40	80
Strongly agree	0	0
Strongly disagree	0	0
TOTAL	50	100

Source: Kenya Petroleum Refineries employees

The results in table 3 revealed that 10 respondents (20%) agreed and 40 respondents (80%) Disagreed.

Graph 3.



Source: Kenya Petroleum Refineries employees

## **CHAPTER V**

### **5.0 Introduction**

This chapter mainly dealt with summary, conclusions and recommendations related to the Effects of industrial accidents on employee performance in the Kenya Petroleum Oil Refineries drawn from the findings and analysis made after conducting the study.

### **5.1 Discussion of the research**

The summary of the findings were presented in accordance with the research objectives of the study are as follows

5.1.1 The first objective was to find out the relationship between industrial accidents and employee performance. The study conducted revealed that accidents had a great impact when it comes to performance. 70(87.5%) respondents expressed that there was a noticeable relationship between industrial accidents and employee performance.

Health and safety is a management responsibility of equal importance to production and quality. Effective control of accidents is majorly achieved through cooperative effort at all levels in the organization. Employees know the precautions available for use and so the employer must then conduct an energetic safety campaign to get the message of safety over to the in-house personnel.

5.1.2 Examining the effects of major types of accidents on performance was the second objective of the study. The outcome of the study showed that 50 (62.5%) noted that the major effect of accidents is low productivity, 25(31.2%) noticed that the effects caused harm to colleagues while 5 (6.3%) stated it caused low morale. This findings relate to the idea suggested by Heinrich (1931) in his 'Domino theory' of accidents that sequence of events which lead to resultant loss should be treated by emergency plans, prompt repair and applying ingredients of good management necessary to prevent loss like planning, organizing, leadership and control.

5.1.3 To establish the causes of the minor accidents at the workplace was the third objective.

According to the answers received, the study revealed that 60 respondents (75%) agreed that human error is the major cause of minor accidents. Moreover, 10 respondents (12.5%) agreed strongly about the social environment as the cause while 10 (12.5%) agreed the mechanical hazards are the causes of minor accidents.

Accident control is not a “common sense” but is based on a common understanding of risks and how to control them are brought about through good management.

## **5.2 CONCLUSION**

The data collected from the field by the researcher revealed that there is a close relationship between accidents and performance.

### **5.2.1. To find out the relationship between industrial accidents and employee performance**

An accident is a physical occurrence; therefore prevention must include physical measures such as maintaining plant, equipment and buildings for the smooth running and operation of employees. Promoting safety by ensuring safe systems of work for all circumstances may be of due importance to the health of the workers. However, a carefully designed task is important to avoid errors and hence accidents which lower performance. To a larger extent, human error due to violations may be a bridging gap between performance and accidents. Companies die because their managers focus on the economic activity of producing goods and services, and they forget that their organization's true nature is that of a community of humans.

Everybody in an organization has to believe their livelihood is based on the quality of the product they deliver.

### **5.2.2. To examine the effects of major types of accidents on performance**

An individual's behavior at work can be a cause or a contributing factor in accidents. Behavioral science can assist in predicting behavior, perception and reactions to risks. Injuries that employees get may be as a result of personality, intelligence or memory. Electric shock or head injury may have resulted from working in more hazardous industries. This may cause prosecution but the fact behind it may be degradation of human performance whereby other factors which can place stress on the individual can result in deteriorating performance.

### **5.2.3. To establish the causes of the minor accidents at the workplace**

The minor accidents majorly happen due to the workers' fault. An employee may be nervous or ignorant about the safety practices and so may end up getting scratches and sprains. The undesirable traits of character like recklessness may be passed along through the social environment which can cause minor accidents.

## **5.3 RECOMMENDATIONS**

The researcher made the following recommendations for effective and successful control of accidents in the workplace;

As well as having simple causes, most accidents are the result of carelessness, lack of thought or knowledge or failure on the part of the individual workman to appreciate hazards.

Safety measures are all important but they have one definite limitation. There comes a point where the individual workman must play his part in the management and supervisors in laying down safe methods of working, one careless or reckless act can still cause an accident.

Somehow, therefore, safety has to be got over to the men. It is not easy but it must be done and supervisors, being in the best position and in daily contact with the workforce, are the best people to do this.

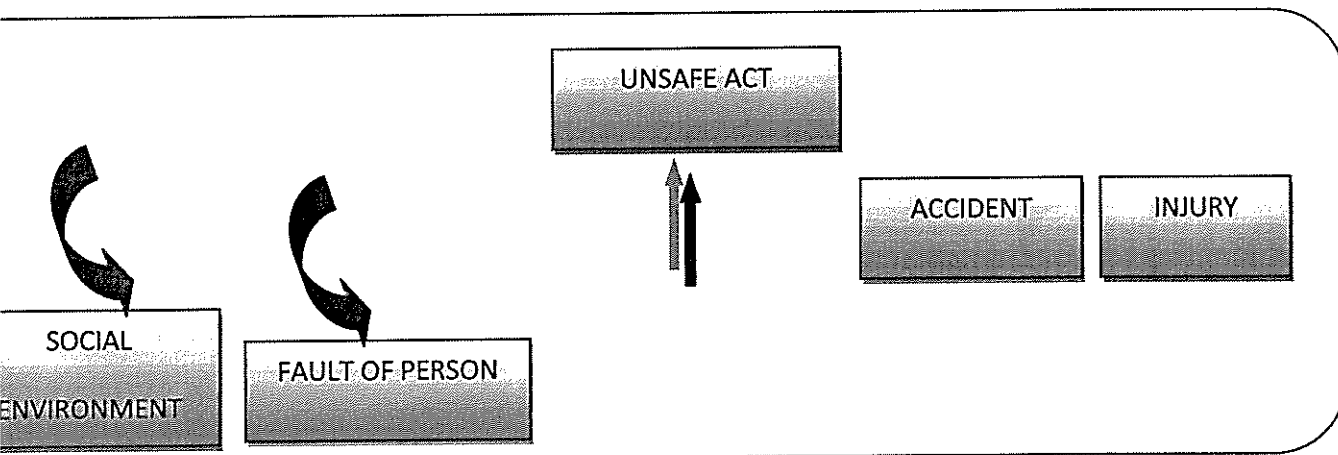
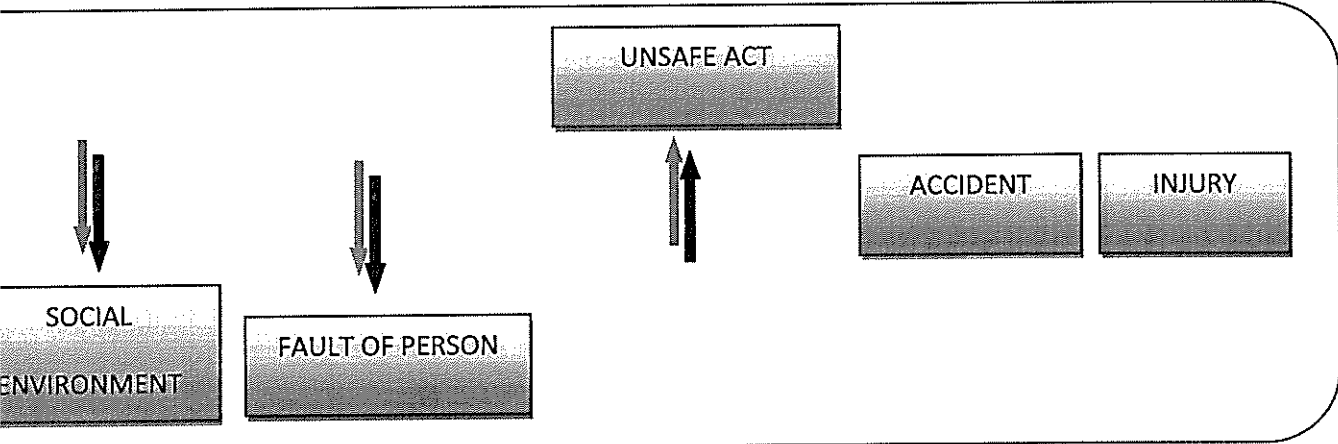
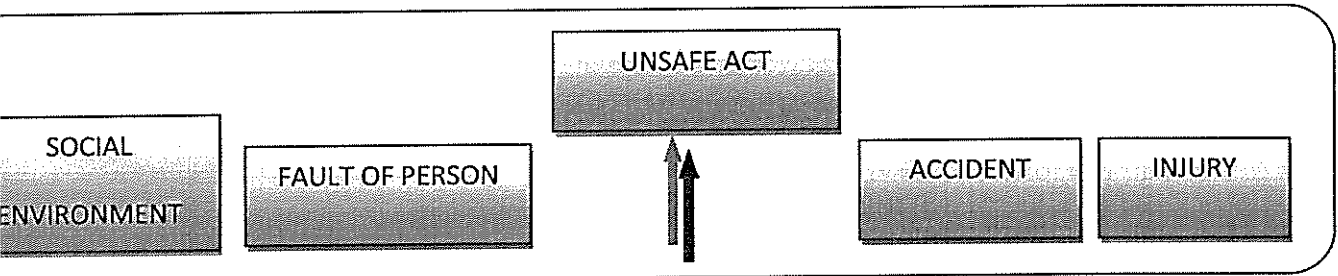
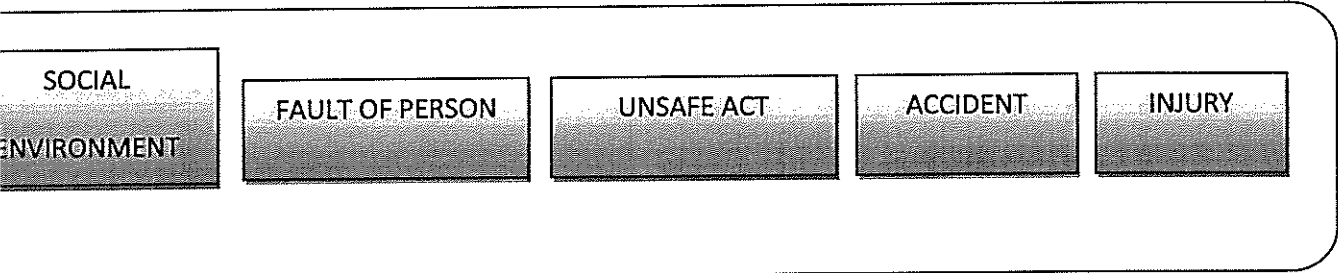
#### **5.4 Areas for further research**

The researcher proposes the following area for further research as it can be general contribution to the performance of the organization; employees' perception of accidents and their performance, possible solutions of industrial accidents and employee performance and the impact of accidents on and work procedures.

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Appendix 1: Domino Theory of Accidents



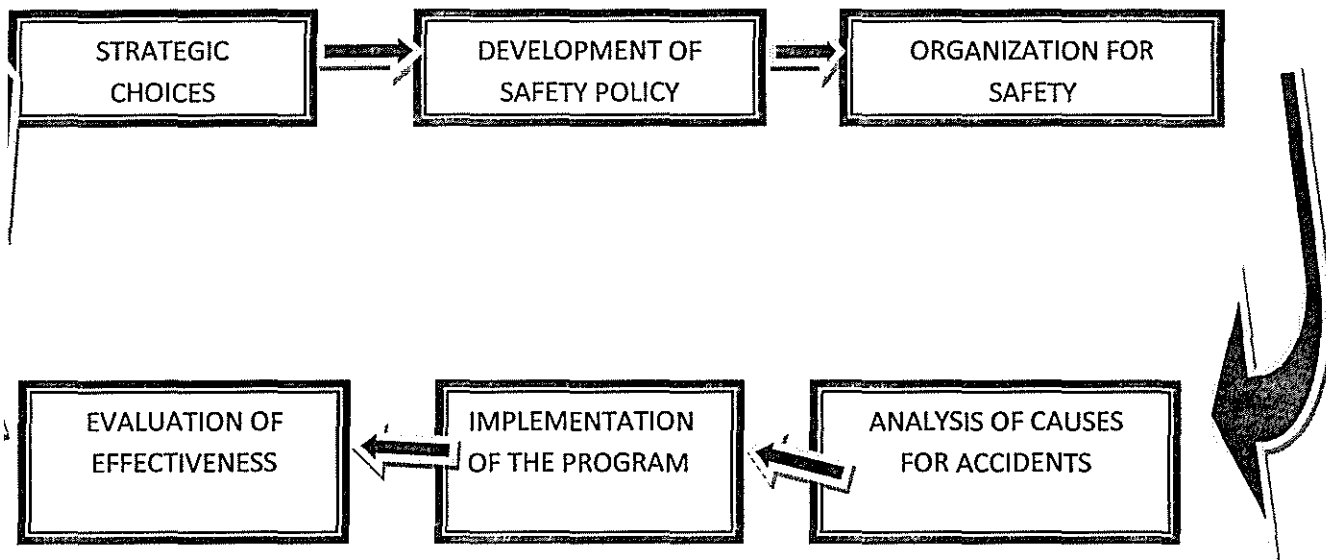


*Appendix 2: Sample size (s) required for the given population sizes (N).*

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

*Source: Overviewing the Methodology of Research by M.E. Amin.*

*Appendix 3 . The Safety process*



*Source: Human Resource Management by K.A. Aswathappa*

*Appendix 4: Research Questionnaire format*

**Research topic:** Industrial Accidents and Employee Performance in Kenya Petroleum Refineries.

Dear respondent,

I am Patricia Ochieno, a student of Human Resource Management in the school of Business and Management department at the Kampala International University.

I would like you to assist my research study on “Accidents on Employee Performance” by kindly answering the stated questions.

This is to fulfill my academic requirement in my degree program.

I promise that every response will be treated with maximum confidentiality.

*Thank you in advance.*

## QUESTIONNAIRE

### SECTION A: Personal Information

Age.....

Sex.....

Marital status.....

Department .....

Level of education.....

### SECTION B:

1. Employees' performance is boosted when there are minimal cases of accidents

Agree ☐ Strongly agree ☐ Disagree ☐ Strongly disagree ☐

2. What is the major type of accident that occurs in the organization?

*(Please tick where appropriate)*

		1	2	3	4	5
1	Electric shock					
2	Head injury					
3	Spinal cord dislocation					
4	Burns					

- 1- Strongly agree  
2- Agree  
3- Disagree  
4- Strongly disagree

3. Below are some of the minor types of accidents occurring at the workplace.  
Which one is rampant?

*(Please tick where appropriate)*

		1	2	3	4	5
1	Falls					
2	Scratches					
3	Fainting					
4	Cuts					

- 1- Strongly agree
- 2- Agree
- 3- Disagree
- 4- Strongly disagree

4. Have you ever had a major accident(s) before?

☐ YES ☐ NO

If yes, what caused it? .....

5. Below are the major effects of accidents on performance. Which one is the main effect in your organization?

*(Please tick where appropriate)*

		1	2	3	4	5
1	Prosecution					
2	Harm colleagues					
3	Bad publicity					
4	Low productivity					

- 1- Strongly agree  
 2- Agree  
 3- Disagree  
 4- Strongly disagree

6. Minor accidents are caused by; *(Please tick one)*

- ☐ Social environment  
☐ Human error  
☐ Mechanical hazard

Others (state).....

7. How often do you hear of or experience the cases of minor accidents?

Daily ☐ Weekly ☐ Monthly ☐ Always ☐

8. The Kenya Petroleum Refineries has an effective health and safety policy

Agree ☐ Strongly agree ☐ Disagree ☐ Strongly disagree ☐

9. Training on safety is the only solution to control accidents at the workplace

Agree ☐ Strongly agree ☐ Disagree ☐ Strongly disagree ☐

*Thank you for your response.*