UNIVERSITY OF EDUCATION, WINNEBA

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A STUDY INTO WORKERS' INVOLVEMENT IN HEALTH AND SAFETY DECISION MAKING: A CASE STUDY OF D1K1 AND D2K2 CONTRACTORS IN ASUTIFI NORTH AND SOUTH DISTRICTS

ANTHONY ATO ROCKSON

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ANTHONY ATO ROCKSON

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A Dissertation in the Department of CONSTRUCTION/WOOD TECHNOLOGY, Faculty of TECHNICAL EDUCATION, submitted to the Graduate Studies, University of Education, Winneba, in partial fulfilment of the requirements for the award of Master of Technology Education (Construction Technology) Degree

AUGUST, 2018

DECLARATION

STUDENT'S DECLARATION

I, ANTHONY ATO ROCKSON, declare that this Dissertation with the exception of quotation and references contained in the published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE: …….

DATE: ……..

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR. NONGIBA A. KHENI

SIGNATURE: ……

DATE: ……

ACKNOWLEDGEMENTS

There is a saying that “The People you meet on your way up, they are the same People you meet on your way down”. With this at the back of my mind, it will be inappropriate not to express my profound gratitude to certain individuals who in divers ways assisted in putting together this research work.

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I also wish to express my gratitude to my siblings, my parents, In-Laws, Members of the Wesley Methodist Church, Hwidiem and all my course mates. I say without you, this project could not have been successful. I say thank you so much for being part of my life.

DEDICATION

This Research is dedicated to the Almighty God, my wife; Mrs. Esther Adjei Rockson, my children; Cheneniah Joojo Twum Rockson and Vanessa Aseda Rockson and all my family members.

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ABSTRACT

It is important that construction site workers are involved in health and safety decision making since they are physically and psychologically affected by accidents on construction sites. The aim of this research was to examine construction site workers' direct or indirect involvement in health and safety decision making in some selected Districts (Asutifi North and South) from the perspective of D1K1 and D2K2 contractors. A quantitative research strategy was adopted using a deductive approach. The target population of the study was made up of construction site workers employed by D1K1 and D2K2 category of construction companies in Asutifi North and South District Assemblies. Purposive sampling (Non-Probability) technique was used to select the respondents. Questionnaire was the main instrument used to gather primary data. Data collected for the study was analysed with the Version 16 of the Statistical Package for Social sciences (SPSS). The findings of the study showed that the ways in which construction site workers are directly or indirectly involved in health and safety matters included; suggestions and opinions of the workforce being inculcated in the overall health and safety management systems in most of the companies, and that they were allowed to make suggestions that sought to improve upon their own safety on site. Management was also seen as showing greater commitment of involving workers by coming out with Involvement Programmes to ensure a sustainable involvement in health and safety management in some companies. Overall, the level of involvement of workers in health and safety matters was consistent with their awareness about health and safety issues, Specifically, the study found that level of awareness of workers in health and safety issues relating to the work environment was commendable in the sense that, they could tell some of the basic provisions in the regulations regarding health and safety in the country. In relation to that, they were not afraid to be victimised by management when there was the need to raise issues against management about certain health and safety decisions, which in the workers' opinion could affect their operations negatively in one way or the other. Even though workers may possess limited knowledge in health and safety on site, they nevertheless could express satisfaction or otherwise when certain decisions by management would affect them eventually. Based on the stated findings, the study has made recommendations towards greater involvement of workers in health and safety management in D1K1 and D2K2 construction firms in the study districts.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The world of work is continually changing, and poses new challenges in preventing and reducing accidents and ill health in the workplace. What remain constant are the essential principles of effective health and safety management, particularly good workforce involvement and strong and active leadership from the top. Therefore, the involvement of workers in health and safety decision making is widely believed to be central to the achievement of improved organisational performance across many dimensions, including that of effective health and safety management (HSE, 2015).

Kothari (2015) states many organisations claim that worker involvement in their decision-making and management has resulted in quantifiable benefits, such as improved change management, more responsive customer service provision, better dispute resolution, reduced labour turnover, and reduced sickness absence and accident rate. There is also a wider public policy agenda to promote workplace information and consultation, which has resulted, in part, in the passage of the Information and Consultation of Employees Regulations of 2005. These Regulations require large organisations of 150 employees to involve and consult their employees over fundamental issues that affect their working lives, such as organisational change according to Health and Safety Executive report, 2007. The Health and Safety Executive has a commitment to the encouragement of worker involvement in health and safety issues, based on evidence suggesting that this leads to a lowering of ill-health and injury rates at work.

The Strategic Involvement Enabling Programme's research activity is consequently concerned partly with the question of whether worker involvement in health and safety risk management improves health and safety outcomes, and if so, in what ways. According to Construction and Engineering Management Report 2013, it finds out that to date, sustainability has been focused on the use of such resources as the materials being incorporated in the built environment and the energy consumed in the process of manufacturing the materials or their installation. Construction workers are also a resource involved in the built environment, and it can easily be argued that they are the most valuable resource involved in the process of constructing facilities. Construction practices can have direct and indirect human health effects for construction workers. On construction sites, toxic substances are present in numerous products, such as paints, solvents, wood preservatives, pesticides, adhesives and sealants. Even with careful management, some of these substances are released into the air, soil, and/or water, and many are hazardous to workers. As Cole (2000) discusses, many of the health risks to construction workers can be minimized through simple yet effective procedures for involving workers in the health and safety decisions, materials selection, storage and handling, and adherence.

In Ghana currently, efforts are being made to becoming an industrialized nation, and this change is exposing a large percentage of the workforce to various health and safety hazards at the workplace. The Labour Department of Ghana Annual report (2000) gave a total of 8,692 work-related accidents reported to the Department for compensation claims, while the 1999 figure stood at 4,088. These figures represent only those occurring at the formal sector. The preamble of the International Labour Organisation (ILO)

constitution highlights that the protection of the worker against sickness, diseases and injury arising out of employment is fundamental element of social justice. Occupational safety and health is human right and decent work eventually is safe work (WHO, 2010). Concha-Barrientos et al., (2004) noted that "people at work face a variety of hazards owing to chemicals, biological agents, physical factors, adverse ergonomic conditions, allergens, a complex network of safety risks, and many and varied psychosocial factors" (p.1653 As pointed out by Marmot and Wilkinson (2006), the working environment and the nature of work itself are both important influences on health.

1.2 Statement of the Problem

As an essential element of each occupational safety and health management system, workers' participation influences its effectiveness. The participation can be implemented as indirect (through representatives) or direct, weak or strong, formal or informal, etc. Development of workers participation in OSH management is supported by legal regulations as well as standards and guidance on OSH management systems. The general framework for developing workers' participation in companies' occupational safety and health (OSH) management has been established, among others, in numerous ILO conventions and resolutions as well as European Union directives. However, no definition of workers participation has been agreed internationally. According to Gonzales (2010), workers' participation can be defined as "a variety of processes and structures which enable, and at times encourage, employees to directly and indirectly contribute to and influence decision –"making in the firm and in the wider society.

Few studies are dedicated to examining workers' participation in health and safety management. Many of such studies have been conducted on the nuclear energy and manufacturing sectors of developed nations (Mearns 2007; Lingard & Rowlinson 2005; Ennals, 2002; Mogensen, 2006). Apparent paucity of similar studies in the construction sector could be due the fundamental differences between the construction industry and other industrial sectors; projects are one off, transient project teams and workforce (Claw, 2010). Developing countries, including Ghana possess weak occupational health and safety systems (Koehn and Kothari, 1995) and consultation of workforce on health and issues is less likely (Mwombeki, 2005). The present study therefore sought to fill this gap in the literature on workers' involvement in occupational health and safety in Ghana using selected districts.

1.3 Aims and Objectives of the Study

The aim of this research is to examine construction site workers' involvement in health and safety decision making within D1K1 and D2K2 contractors in some selected Districts (Asutifi North and South). The specific objectives of the study will be:

1. to identify ways in which construction site workers are directly or indirectly involved in health and safety matters in Asutifi North and South Districts;
2. to assess construction site workers' awareness on health and safety issues relating to the work environment in Asutifi North and South Districts; and,
3. make recommendations for enhancing workers' involvement health and safety management based on the findings of the study.

1.4 Research Questions

For the aim of the study to be achieved, the under listed research questions will be used to guide the study:

1. What is the extent of workers' involvement in health and safety matters on construction sites in Asutifi North and South Districts?
2. What is the level of awareness of workers on health and safety issues involving construction sites in Asutifi North and South Districts?
3. How can workers involvement as well as health and safety performance be enhanced on construction sites in Asutifi North and South Districts?

1.5 Significance of the Study

Over the years, attempts have been made by the various industry players to eradicate or at least minimize accidents at construction sites to the barest minimum. There appears to be some sort of neglect on the part of management; in that workers who are directly or indirectly affected by health and safety policies. Regardless of significant role these workers play, their input in decision making on health and safety related issues seem to have been nib in the bard. Meanwhile, these workers also have the right to take their own safety and that of others around them very serious so that the construction site will provide a safe environment for these workers and others who may not necessarily be workers on site.

The findings of the research will bring to the fore, the fact that workers' involvement in the health and safety policy decision making will let them owe the policies. It will also help policy formulators, in other words management of construction

sites will know why and when workers should be consulted. The study could also provide new safety precautionary measures that have not been incorporated into the solutions that are aimed at fighting accidents on sites. It should also be able to conscientise workers to be responsible for their own safety and the safety of others in the construction industry.

1.6 Limitations of the Study

The research will be geographically limited to Construction Industries, in other words contractors within the D1K1 and D2K2 categories in the Asutifi North and South Districts in the Brong Ahafo Region. The study shall be theoretically, conceptually and empirically be limited to the research objectives.

1.7 Organisation of the Study

The study has been organized under five chapters. Chapter one, deals with the background to the study, statement of problem, purpose of the study, study objectives, research questions, significance of the study, and scope of the study and organization of the study. The second chapter deals with the review of relevant literature on the subject. Thus, ideas of some researchers and authors have been reviewed. Chapter three focused on the methodology adopted in undertaking the research and focuses on the population, simple instrument for data collection and the procedure used in data analysis.The analysis of the data gathered is dealt with in chapter four. Chapter five presents discussions of the study results whilst chapter six presents a summary of the key findings, recommendations and conclusion.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

According to Lea (2017), Worker involvement in safety and health (WISH) is a two-way process of collaboration whereby both employers and employees work together to spot, solve and own health and safety problems and decisions for the improvement of organisational safety and employee health as a whole.

Supplementary to competent health and safety leadership, access to the right advice and hard skills training, worker involvement plays an integral role in effective organisational safety and health management. Such collaborative working can lead 'buy-in' and in turn, increased productivity, profitability and workforce loyalty levels, with research revealing that worker representation and consultation play a significant part in improving safety and health at work. ISO 45001 further emphasises the importance of consultation and worker participation.

Workers, at all levels and in all positions in an organization, should have roles and responsibilities for enhancing and ensuring the safety of the organization's operations. However, some workers may not be aware of all of their opportunities to contribute. Some organizations may not effectively tap into the full expertise of their workers or, worse, may even discourage workers who seek to contribute through what the organization views as a nontraditional role. Workforce involvement provides a system for enabling the active participation of company and contractor workers in the design, development, implementation, and continuous improvement of the RBPS management system. Effective workforce involvement involves developing a written plan of action

regarding worker participation, consulting with workers on the development of each element of the RBPS management system, and providing workers and their representatives' access to all information developed under the RBPS management system. Workforce involvement provides for a consultative relationship between management and workers at all levels of the organization. This element is not intended to create a system whereby any worker or group can dictate the content of the RBPS management system; however, for workforce involvement to succeed management must provide due and fair consideration of the input provided by workers. Unless a reason exists for distinguishing between company employees and contract workers, the term worker, as subsequently used in this chapter, should be interpreted as referring to both groups.

Those workers directly involved in operating and maintaining the process are most exposed to the hazards of the process. The workforce involvement element provides an equitable mechanism for workers to be directly involved in protecting their own welfare. Furthermore, these workers are potentially the most knowledgeable people with respect to the day-to-day details of operating the process and maintaining the equipment and facilities, and may be the sole source for some types of knowledge gained through their unique experiences. Workforce involvement provides management a formalized mechanism for tapping into this valuable expertise.

Workforce involvement also ensures that mechanisms exist for workers to access the information they need to perform their jobs, including fulfilling their roles in support of the implementation of the RBPS management system Workforce involvement either

directly implements or helps reinforce a number of the essential features of a sound process safety culture. For example:

Individual empowerment. Workforce involvement provides explicit roles, responsibilities, and authorities for workers in the planning, implementation, and improvement of the RBPS management system.

Deference to expertise. Workforce involvement provides a mechanism for workers to share their expertise in the operation and maintenance of the process. By having a role in helping define their training needs, workers can also help direct the enhancement of their expertise.

Open and effective communications. Workforce involvement provides various mechanisms for workers and managers to communicate.

Mutual trust. By enhancing dialogue and interaction between workers and management on process safety issues, workforce involvement provides opportunities for fostering mutual trust within the organization.

Responsiveness. The manner and timeliness of management response to worker suggestions will be a primary determinant of the degree of success that can be achieved by the workforce involvement program. Slow, no, or superficial response can both cause the loss of time- critical opportunities to respond to problems and serve as a disincentive to future worker participation.

By its nature, workforce involvement is associated with virtually every process safety activity, whenever and wherever it occurs. Thus workforce involvement should begin during the design of the RBPS management system and continue on through its implementation and continuous improvement. Certain workforce involvement activities

may be scheduled periodically; for example, a periodic operator opinion survey regarding the adequacy of the refresher training program. In addition, a mechanism permitting continuous input or feedback from workers should be provided as part of the workforce involvement program. Management's responsibility for providing access to information developed under the RBPS management system provides a continuing role for management as such information is developed and modified.

Management, with worker involvement, establishes the procedures and systems that constitute the workforce involvement element, which, in turn, describe the process for identifying opportunities for the workforce to be engaged in the development and implementation of each RBPS element. The workforce involvement procedures also establish a responsibility for workers to make suggestions for the development, implementation, and improvement of the RBPS management system and, for management to respond to such suggestions. Management ensures that required information is available to workers under the workforce involvement program. (Source: aiche.org)

This chapter endeavours to bring to the reader the reviewed related literature about workers' involvement in health and safety decision making. It shall therefore focus on the following topical issues as they relate to the topic under research:

A. Theoretical Review;

   i. Theories of decision making.

   ii. Beyond health and safety.

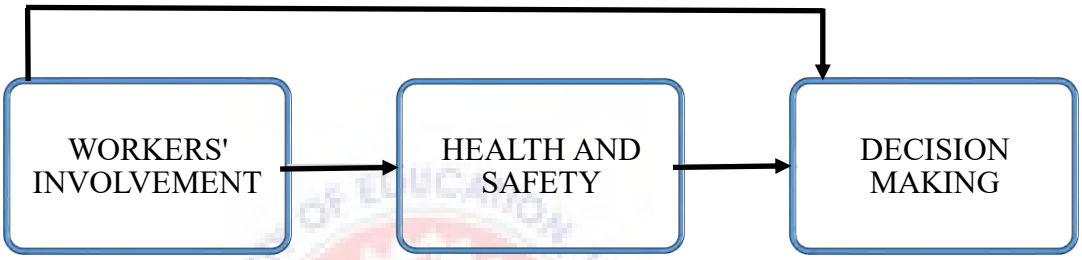
   iii. Barriers or obstacles to engage or involve workers.

iv. Involving workers, what works?

v. Existing safety regulations for workers' protection.

B. Empirical Review of related Literature

C. Conceptual Framework



2.1 Theories of Decision Making

2.1.1 What is Decision Theory?

According to Business Management ideas online (2001), decision theory is theory about decisions. The subject is not a much unified one. To the contrary, there are many different ways to theorize about decisions, and therefore also many different research traditions. This text attempts to reflect some of the diversity of the subject. Its emphasis lies on the less (mathematically) technical aspects of decision theory.

2.1.2 Stages of Decision Making:

In an important sense, management is synonymous with decision making. About the stages in decision making, Simon identifies three criteria:

(a) **Intelligence**: Searching for problems, and identifying and defining problems that demand action. More briefly, what is the problem?

(b) **Design**: Formulating alternative courses of action, and identifying their likely costs and consequences. More briefly, what are the alternatives?

(c) **Choice**: Selecting a particular course of action from the various alternatives. More briefly, what alternative is best?

Thus, we need to understand the following three points:

(a) The proportion of time devoted to each of these activities will vary from one situation to another, from one level of authority to another, and from one manager to another.

(b) Each stage is in itself a complex decision making process, as each problem generates sub-problems and requires application of all these three criteria.

(c) The identification of stages does not guarantee easy solution of managerial problems but does assist the managers in some way or other.

2.1.3 Types of Decisions:

If organisations are viewed as a hierarchy of decision making and decision makers, it implies that, at different levels of the organisation, management will be concerned with different types of decision.

An outline classification of decision making is given below for comprehension:

A. Operating	B. Tactical	C. Strategic
Concerned with immediate action	Concern about how resources are used.	Concern about what the organization does.
Short time horizon (hours)	Medium-time horizon (day, week)	Long time horizon (year or years)
Decision maker is in close touch with situation (i.e. sees the problems physically).	Decisions 'pointed-up' by paper-work system (i.e. the problems are seen by the inspection of data).	Environmental information, internal and external, is crucial to the decision system.
Scale of resources and risk is small.	Scale usually medium.	Large-scale resources often at risk.
Uncertainties are few.	Some degree of uncertainty.	Major uncertainties related to time horizon and scale of decisions.
Tend to be repetitive decisions	Tend to recur from time to time.	Essentially one-off decisions of a unique nature.

(Source: businessmanagementideas.com)

The decision making process is very complex. There is no simple analytical model upon which basic strategic choices are made. The above diagram shows that a large number of disciplines influence and interact on strategic decision making in organisations. The readers must understand that there are no neat formulas to quantify and determine how much of each discipline will apply to a particular problem nor how much weight a decision maker should give to each of the disciplines.

2.1.4 Decision Making Process

From company to company, and within the same company, the decision process is constantly changing. Furthermore, major strategic decisions tend to be, in most cases, unique to each organisation.

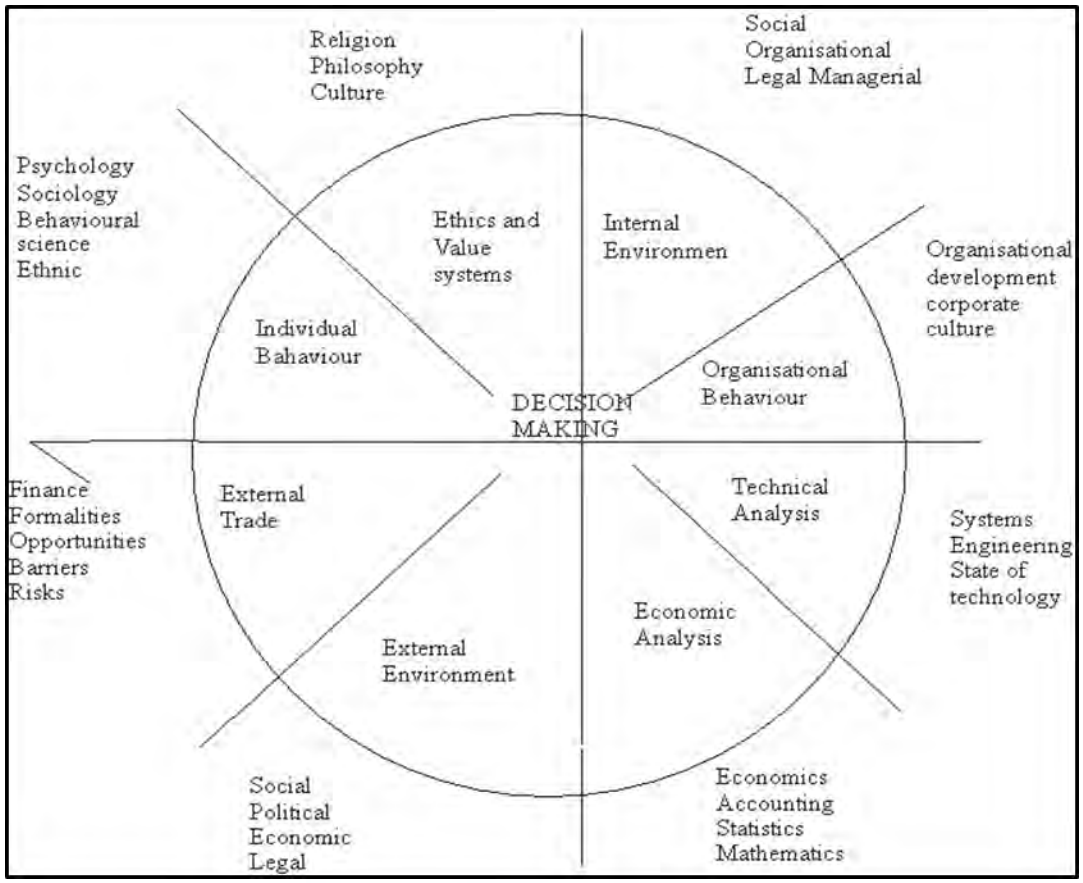


Figure 2.1: Decision making process

(Source: business management ideas, 2001)

2.1.5 Theories of Decision Making:

The theories of decision making, in a broad classification, are of two types:

- Rational or Normative and
- Behavioural.

Their characteristics and general theme are presented below.

On the rationality approach to decision making, Simon observes: 'In terms of what objectives, and whose values, shall rationality be judged?

On the basis of this question, he has identified four types of rationality in decision making:

1. objectives (for example, Peter Drucker's seven objectives discussed hereafter on 'Planning').

(iv) 'Personally' rational, if it is oriented to an individual's goals.

It is interesting to note that Cyert and March also emphasise the on-going political process involved in the reconciliation of such goals. They say, 'organisations do not have objectives, only people have objectives'. Thus organisational objectives are the end-product of a complex and continuous interaction between individuals and groups within and outside the organisation.

2.1.6 Organisation of Decision Making:

In the organisation of decision making, there are basically two crucial schemes:

- Centralisation and Decentralisation, and
- Departmentalisation.

- **Centralisation and Decentralisation:**

Possibly, Fayol (1925) was modern in this concept. According to him, 'everything which goes to increase the importance of the subordinate's role is decentralisation, and everything which goes to reduce it is centralisation; the question of centralisation or

decentralisation is a simple question of proportion, it is a matter of finding the optimum degree for the particular concern.'

There are a range of factors that affect the 'optimum' proportion. Of them, three major factors are:

- The size of the organisation (the larger the organisation the more difficult it is to exercise detailed control from the centre);
- The degree of diversity in the activities being controlled (it is easier to centralise the control of similar activities than dissimilar ones); and
- The quality of superiors and subordinates (the centralisation presupposes competent superiors and decentralisation competent subordinates).

The history of the enterprise and the philosophy of management are also other criteria.

The positive features of decentralisation are:

- It reduces the load on top management,
- It encourages initiative and drive of middle and junior management,
- It enables quick decisions, and
- It assists in the appraisal of managerial performance.

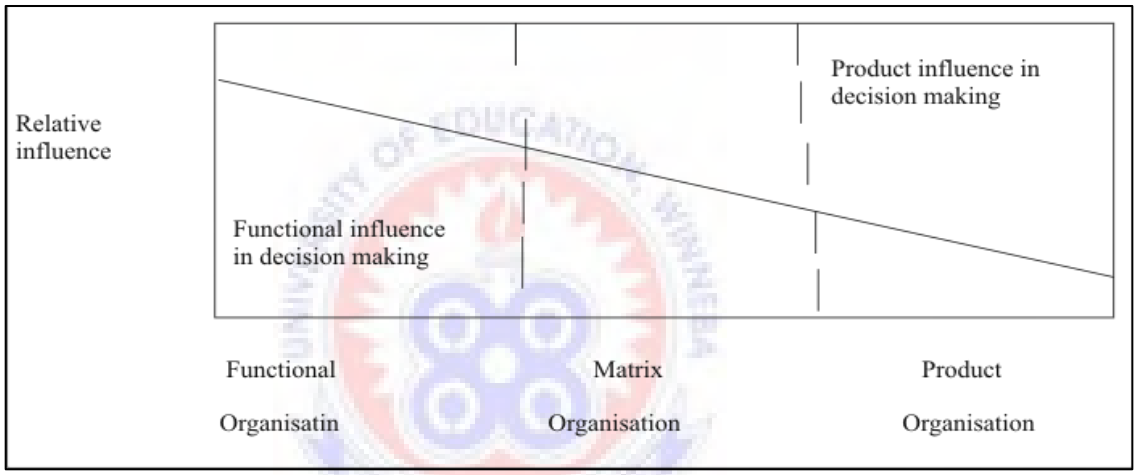
The negative features of decentralisation are:

- Closer coordination and control by the top management are rendered difficult,
- Some duplication of effort and activities takes place,
- Uniform application of policies and standards is difficult at times.

Centralisation and decentralisation are, thus, complex issues. Certain types of decision require centralisation and certain types decentralisation. Again certain departments may be centralised and others decentralized.

- **Departmentation:**

This issue should be discussed along with the matrix structure of an organisation. There are many ways in which decision makers can be departmentalised. But the main approaches could be summarised in a diagram below:



(Source: Fayol 1925)

Figure 2.2: Product influence in decision making

It combines the advantages and disadvantages of both functional and product organisations, and the optimum balance between them would yield results in the strategic choices and applications. Two basic points emerge therefrom:

- The interrelationship between organisational choices over centralisation and decentralisation, and
- The relevance of a management dictum that 'structure follows strategy'.

One important caution to a practising manager is that he should be a conflict-resolver and a joint delegator in his total task and should see to the practical realities of organisational decision making, without having a massive structural upheaval.

2.2 Beyond health and safety

According to Ferguson, (2015,) direct regulation or command-and-control strategies by many policy-makers are considered to be unsuccessful in changing the conduct of companies threatening the safety and the health of their workers and polluting the environment. To improve occupational health and safety, they therefore stimulate self-regulatory policy strategies to make companies comply with social regulation. The relationship between external and internal modes of (self-) regulation is a subject gradually gaining the attention of researchers exploring alternatives for command-and-control regulation. But in a functionally differentiated society integration and coordination may be difficult to realize. The economic subsystem fails to acknowledge its social identity and, therefore, appears to be blind for its negative performance on the environment and the work place.

He continues to opine that, while there are many models of safety leadership available for organisations to understand how to improve safety cultures and safety outcomes, most personal safety leadership behaviours are designed for supervisors and managers working in the field. Yet board members, by the very nature of their duties and responsibilities, do not have a direct leadership role in an organisation. And many senior executives, particularly of large organisation, are located remotely and well away from day--to--day operations. While often not involved in day--to--day operations on site,

board members and senior executives have a strong influence on the tone and safety culture of an organisation through the questions they ask, the focus they place on key organisational issues and the messages they give during interactions with employees. Regrettably, the important safety leadership role of this group of senior leaders has been highlighted after recent high profile disasters such as the Pike River mine explosion and the BP Texas City oil refinery fire.

Recent research has investigated the intersection of corporate governance, leadership and workplace safety to consider safety leadership and safety governance for board members and senior executives. This research has identified four criteria of safety leadership relevant for board members and senior executives:

- ✓ Vision
- ✓ Personal commitment
- ✓ Decision-making
- ✓ Transparency

Vision

When considering a senior leader having vision regarding workplace safety, this criterion refers to their ability to publicly articulate shared safety goals that resonate across all levels of an organisation. Senior leaders demonstrating vision will inspire others, set high standards for safety behaviours, establish safety expectations and solicit commitments to safety from others.

Practical examples:

- CEO and Chair regularly reinforce the existing company safety vision;

- the board authentically engages with employees in safety issues while on site visits; and
- the board understands the importance of, and actively supports, the CEO and senior executive team in their day--to--day safety leadership activities.

Personal commitment

Senior leaders exhibiting a personal commitment to workplace safety have a sincere, visible and genuine dedication to safety that demonstrates care for the welfare of others. Senior leaders with a personal commitment to safety exemplify a positive attitude to safety in the workplace, role model safe behaviours and help solve safety issues on behalf of employees.

Practical examples:

1. commitment to safety included in board charter;
2. company safety vision is communicated regularly and widely; and
3. the concept of 'safe production' is confirmed by the board and communicated widely with board decisions made which are consistent with that message.

Decision making

With respect to board, safety decision--making involves promoting sound assessment of safety issues while also providing an opportunity for open communication between all levels of an organisation. Senior leaders promoting decision--making ensure safety concerns are heard and employees are included in the safety planning process.

Practical examples:

1. a board committee is established focused on safety;

2. there is regular, robust and meaningful safety reporting to the board; and
3. senior executives are encouraged by the board to think strategically about safety and not just as a source of statistical analysis.

Transparency

In the context of the board, transparency involves being open to scrutiny of safety performance through monitoring and communicating the effectiveness of safety initiatives. Senior leaders demonstrate transparency through formal and informal communications which celebrate safety successes, as well as openly communicate safety challenges as they emerge.

Practical examples:

1. ensure consistent and comparable range of lead and lag indicators are reported and disclosed to stakeholders;
2. develop open communications with other companies to develop best practices in safety; and
3. include team safety performance with an executive remuneration system.

2.3 Barriers or obstacles to involve workers

A report by HSE (2005), employees, employers and safety representatives were asked for their views on the factors inhibiting the greater involvement of workers in health and safety. The key themes were:

- extent of understanding and awareness of the meaning of health and safety, and the perceived complexity of health and safety legislation and regulations;
- health and safety as a matter of 'common sense';

- the culture of organisations and the value attached to involvement in health and safety; and,
- issues in relation to the time and cost incurred through the implementation of good practice.

For many, the whole subject of health and safety was frighteningly complex, and they found the legislation, regulations and requirements difficult to understand. Both employers and employees were unhappy with the amount and type of information available on health and safety. They (whether employer or employee) tended to receive too much information, which confused them further; information was often received late (especially of changes in regulations), and from more than one source. They noted that it was rarely tailored to specific sectors, or occupations, and could be hard to find when needed.

Among the participants in this research, awareness of the role of HSE was low, though it was more often associated with enforcement than prevention. Few of them had heard of the helpline – often coming up with the idea for this type of provision during the focus groups.

There was a general perception that understanding and applying health and safety was a matter of 'common sense', though the participants in the research found it difficult to define the term. Two barriers to involvement were created. First, employees with common sense took their awareness of good health and safety practice for granted, and could be reluctant to take advice on their own behaviour and not realise when their own practices could be improved. Second, those with common sense seemed to hold a view that those without it were impossible to train and/or encourage to change their behaviour.

Instead these individuals had to be protected themselves or, ideally, not employed in the first place.

Organisational culture played a major role in whether or not employees, and employers, gave a high priority to implementing best practice in health and safety. Employers and employees tended to believe that the implementation of health and safety was costly, in terms of both time and resources. This was an especial theme for those working in or running relatively small businesses. Where organisations were very conscious of cost and resource constraints, both employers and employees were prepared to 'cut corners' to ensure the work was done on time and to budget. Employers were aware they were taking risks, but felt unable to make the long-term investment best practice might require. Employees were inclined to go for the easiest and quickest option rather than the safest. For both, there was a tendency to regard health and safety practice as preventing quick and efficient working. Few could see the business benefits of carrying out risk assessments and implementing better practices, both in terms of less lost time and of any gain to the business, such as increasing productivity through motivated and committed staff.

Organisational culture also influenced the extent of communications and whether or not employees were prepared to raise health and safety concerns with their employer. A number of the participants in the focus groups were not prepared to do so for fear of losing their jobs. This applied particularly, but not exclusively, in sectors with poor job security. It also applied where organisations were dominated by a 'macho' culture, which meant that employees and employers perceived an interest in health and safety as '*soft'* or '*weak'*. Some employers were perceived as driven by the fear of litigation. This factor

was mentioned by a number of those we interviewed, one of whom admitted to complying with regulations to '…keep out of prison.' In contrast, other employers provided training and had managed to create an atmosphere, which enabled employees to raise issues.

According to a report by Health and Safety Executive (2005), the primary issues creating barriers to involvement in health and safety were:

- Understanding and awareness of the issues
- Organisational culture
- Time and cost
- Organisational health and safety culture
- The location of information
- 'Common sense'
- Age

Understanding and awareness: for many, the issue was frighteningly complex and they found the legislation, regulations and requirements were all very difficult to understand. They (whether employer or employee, but especially employers) tended to receive too much information, which confused them further; information was often received late, and from more than one source.

Organisational culture: some organisations were thought not to be interested in their staff, 'fear' was clearly still a factor, linked to job (in)security, and was particularly strong for those in unskilled work. 'Speaking up' was directly linked to the chance of losing a job. A number of the employees who took part in the focus groups described their

reluctance to ‘speak up’ for fear of being perceived as a ‘troublemaker’ or ‘moaner’, as well as the fear of losing their job,

Time and cost: employers and employees all believed that the implementation of health and safety was costly, in terms of both time and resources. This was a recurring theme for those working in or running relatively small businesses, where the time=money equation was very strong. Interestingly, employees in these instances drew a direct line between the amount of effort (as they perceived it) to introduce health and safety and the financial implications of doing so – it was always ‘too expensive’. Small businesses were, in effect, prepared to take risks to save costs. Few, if any, could see the business benefit of carrying out risk assessments and implementing better practices, both in terms of less lost time and of any gain to the business, such as increasing productivity through motivated and committed staff.

Organisational health and safety culture: whether an organisation was driven by a 'macho' culture was another barrier to involvement, as was the way management approached employee communication more generally. An open approach, with regular team meetings, was more likely to promote involvement, than one where communication was written (or non-existent).

The location of information: while information was complex, and there was too much of it, it was difficult to find for specific problems or working environments. Employers and employees did not know where to go. Knowledge of the HSE helpline service was very limited among this group of people. Information was not tailored to specific trades or occupations.

Health and safety as 'common sense': as a result of the common perception that health and safety was a matter of common sense, two barriers to involvement were created. First, employees with common sense took their awareness of good health and safety practice 'for granted'. For them, health and safety was not really an issue – they were the ones who would move the box or lift heavy weights correctly and use the appropriate equipment. However, this meant that they might be reluctant to take advice on their behaviour and not realise when their own practices could be improved. Second, those with common sense seemed to hold a view that those without it were impossible to train and/or encourage to change their behaviour. Instead these individuals had to be protected from themselves, or, ideally, not employed in the first place.

Age: younger staff were generally felt to have more positive attitudes to health and safety than older staff, therefore, would be more likely to be involved, whereas older workers were regarded as 'set in their ways' and as not being interested in changing their approach to the issue.

Some of these barriers are relatively easily addressed, such as increasing awareness, knowledge and understanding of health and safety and improving the supply and type of information. Others are more difficult to resolve such as changes in organisational culture and philosophy and require a more sustained campaign and deliberate interventions.

2.4 Involving workers, what works?

According to Fidderman and McDonnell (2010), Royal Society for the Prevention of Accident (RoSPA) conducted survey work and focus groups with a diverse range of organisations drawn from health and safety business networks in Scotland to help develop a self-sustaining "what works in worker involvement" toolkit. Linking to the HSE's strategy, the investigation sought to identify examples of genuine management/workforce partnership based on trust, respect and cooperation, recognising that with such a partnership, a culture can evolve in which health and safety problems can be solved jointly and in which concerns, ideas and solutions are freely shared and acted upon.

This approach ensured that the RoSPA initiative was underpinned by core HSE messages promulgating the positive benefits of worker involvement, signposting relevant case studies, publications and sources of advice. Threads from the recently revised HSE worker involvement website and the HSE's "Safe and sound: do your bit campaign"2, and key messages from the MacLeod review of employee engagement3, have also been embedded in our attempt to identify leading edge worker involvement initiatives in non-unionised workforces.

2.4.1 Tips on involving workers

- Be patient. The process of engaging workers takes time; those that have done it say that while there were some results within a year, it was nearer five years before they were happy that the process was embedded. Nor is the process of WISH ever complete.

- Make sure the directors and senior managers visibly support a worker involvement culture. They can do this by addressing meetings, sending out messages, instructing managers, and "talking the talk and walking the walk" etc.
- Explain why you want to involve workers and what it involves.
- Run an employee opinion survey and be seen to act rapidly on a couple of suggestions or shortcomings. That way, employees will start to appreciate that the employer is serious about WI.
- When receiving suggestions, always ensure that the person making the suggestion receives feedback, even if the answer is "sorry and these are the reasons why". The fact that the employee's views are treated seriously is usually more important than agreeing with them. Linked to this, ensure that you publicise responses to employees' suggestions.
- You need to engage personnel at all levels of an organisation, using different tactics for different groups and even individuals. For example, email might elicit suggestions from office-based workers, but may be less appropriate in a warehouse. There were, however, fascinating examples such as steel-encased PC kiosks on the factory floor that combined processes, holiday forms, emails and WISH in health and safety.
- Be visible. Walk around. Talk to staff. Take small numbers of staff on regular safety walk rounds.
- An anonymised system of reporting complaints or problems is helpful in the initial stages of embracing WI, but appears to be rarely used once the culture is embedded.

- Ensure you take the views of shift workers and part-timers into account.
- Take staff to another organisation where WISH is working.
- WISH will not happen without a genuine no-blame culture.
- Ensure reps have training in how to be a representative (covering eliciting views, presenting a case, feeding back to colleagues) as well as in health and safety. Even in most of the best examples, there is no training in representation.
- People are generally reluctant to volunteer as a representative of employee safety, and it may be worth having a quiet word with employees you think would do a good job. Vociferous and confident individuals will facilitate better engagement than "yes" people. "Informal leaders" – who workers already turn to for advice – may either make good representatives themselves or be important in lending credibility to the notion and practice of engagement. Consider also offering inducements and rewards – financial or otherwise.
- Make sure that any joint health and safety committees have a workable balance of employee representatives and managers. Managers – particularly the most senior – should consider absenting themselves from part of a meeting in order to ensure that representatives are not intimidated from speaking out. This should not undermine the case for strong leadership from the top, and the need for such temporary absence will diminish as representatives grow in experience and confidence.
- Ensure your managers and staff are trained in soft skills as well as hard skills.

- Rome wasn't built in a day – like any new business process, engaging workers will take time. While you can expect to achieve some results in the short term, many organisations report that it can take up to 5 years to embed a new process.
- Refine and re-define - worker involvement in health and safety should be viewed as a continuing process and never to be considered 'complete'. Organisational safety should continually seek to evolve and adapt to environmental as well as technological factors.
- Take a top down approach – senior directors, managers and supervisors should lead by example. If there is visible support for a 'worker involvement culture', the job of adoption and positive 'buy-in' will be made easier. Key addresses at meetings, dissemination of messages, instructing managers and making the subject a boardroom issue will all serve to reinforce a lead from the top approach which will serve to permeate operations.
- Communicate – explain the key objectives in a clear and consistent manner. Use terminology that workers will understand and be receptive too. Explain the importance of involving your workforce in matters of occupational health and safety and the potential outcomes of buy-in. Analogies, workplace scenario development and key statistical data can help reinforce your message.
- Account for opinions – arrange an employee opinion survey. Act on the results - suggestions/comments/shortfalls. Openness and visibility here will secure you credence as employees see a clear commitment and that you are valuing their involvement and taking their opinions seriously.

- Feedback –if you are acting on suggestions, make sure that you provide the employee who offered the suggestion with appropriate feedback. Even if you are unable to act on the suggestion, a response (including credible reasons why) will be valued. An employee's viewpoint should be taken seriously– these are your 'front line' staff after all. Consider a central area for storing these suggestions and their responses that can be accessed by everyone.
- Engage – your workforce at all levels in the hierarchy. Use different tactics for the various different groups and possibly even at an individual level – e.g. email might not work on the factory floor or in a warehouse. However, some factories may have adopted 'pc kiosks' for central sources of information (combined processes, holiday forms, emails etc) - however this does heavily rely on a proactive workforce when considering WISH and may need to be supported with reinforcing measures.
- Walk the walk – be seen, conduct site walk-about and talk to staff. Consider assembling small groups of staff regularly to conduct safety observation walks without seeming like 'big brother'.
- Maintain – a system of reporting accidents, near misses, problems or complaints and ensure anonymity. While this can be key in initial engagement efforts, few organisations get this right in the longer term and use it as a valuable tool to shaping organisational health and safety culture.
- Allocate - representatives and further ensure that these reps. receive the appropriate training covering the soft skills they will need (eliciting views, presenting a case, feeding back to colleagues) as well as in health and safety.

While people are generally reluctant to volunteer as a representative of employee safety, it may be worth having an informal chat with those employees you consider might make good health and safety reps. Look for the appropriate skill set and lend credibility to your efforts. Consider offering inducements and rewards – financial or otherwise.

- Ensure - committees have a balance of employee representatives and managers. While leadership from the top is vital, senior management might consider being absent from parts of meetings in the initial stages to ensure that there is no intimidation from speaking up.
- Improved communication is essential for promoting WISH. Increased emphasis should be placed on face-to-face methods, avoiding densely written, detailed information that is considered difficult to digest and understand for a large percentage of the workforce. *(Source: Tom, 2012)*

2.4.2 Employee Involvement and Soft Skills Development in Organisations

As the worker involvement agenda has developed, the importance of the role of the "messenger" has become more significant. Later HSE research around this theme has therefore looked at "people" skills and how these might be applied to secure improved worker involvement in health and safety. Fundamental to the emerging theme of worker involvement is research undertaken in 2007 by the Involvement and Participation Association (IPA), based on the underpinning principle that "workers should be involved in taking decisions about health and safety at work" and the key message from the WSA evaluation that "soft or people skills" are fundamental in engagement between employers

and employees and indeed between employees themselves. The overwhelming conclusion of this study was that the creation of a "dialogue culture" was the most important factor in an organisation's ability to develop and deploy the soft skills needed for effective employee involvement in health and safety.

In examining organisational employee involvement processes, and considering the soft skills which both contribute to employee involvement, organisations were clustered into four organisational cultural types in this instance– unitarist high control organisations, unitarist high involvement organisations, pluralist high control organisations, and pluralist high involvement organisations.

Several dimensions to employee involvement are examined, which relate to the processes of their involvement, the scope, spread and depth of involvement, and the skills and behaviours relevant to employee involvement. In other words, this tries to address questions as: What are the structures, processes and arrangements by which employees are involved in health and safety? As far as the scope of involvement is concerned, are employees involved in health and safety strategy-setting, in policy development, or in health and safety at operational level? And do they get involved in health and safety proactively or merely reactively? As far as the spread and depth of employee involvement is concerned, does employee involvement in health and safety extend laterally from health and safety specialists to line managers, and vertically to cover all employees in the organisations in question? And finally, what skills and behaviours are developed and deployed among employees in the course of their involvement in health and safety, and how, if at all, does their involvement enhance these skills?

- **Unitarist, High Control Organisations**

This cluster of organisations is characterised by a culture built around defined values, in which all members of the organisation are believed to be working to the same objective. There is a strong commitment to investing time and effort into direct involvement. Representative arrangements might exist but are seen mainly as a support for a strong direct employment relationship.

Organisations that demonstrate a unitarist culture are built around a firm sense of values and purpose. These strong values underpin the attitudes and behaviours expected of employees, and are reinforced by top-down communication. The role of management is to ensure compliance through rules and procedures.

Unitarist high control organisations can only achieve limited levels of employee involvement, because behaviours, processes, and skills are highly prescribed and this blocks individual, and indeed organisational, learning, and the independence of thinking which is vital if employees are to be truly involved and engaged in the management of health and safety.

- **Unitarist, High Involvement Organisations**

Like some organisations, unitarist, high involvement organisations also possess cultures which promote defined values, in which all members of the organisation are working to the same objective, and which are reinforced by managers and workers. Employee involvement is built around engaging individuals in agreed activities.

In unitarist, high involvement environments, there is no explicit contest of perspectives or interests, no acknowledged countervailing views to the dominant organisational ideology, and no oppositional discourse. Unitarism consequently blocks any substantial dialogue,

and thus effective employee involvement. Such organisations are becoming increasingly common, and denote a widespread move towards the management of employment relations on an increasingly individualised basis.

- **Pluralist, High Control Organisations**

These organisations have robust structures of worker representation, particularly trade unions. They show a strong commitment to joint regulation of the health and safety agenda both at a policy and at an operational level. Employee involvement is focused on engaging individuals in joint company-union activities, and consequently deep employee involvement (running through the structures of these organisations) is weak.

In pluralist, high control organisations, there is a structured approach to managing health and safety with trade unions. They are committed to raising management awareness of, and shared responsibility for, the health and safety agenda, by increasing the amount of time managers spend with workers and raising their awareness of issues in the workplace. However, they tend to manage the agenda through standards and procedures, which block workforce-level initiative and embedded behavioural safety. They also manage the agenda primarily through the unions, who for their part see their role as the key providers of information to management about workplace health and safety issues. In effect, therefore, both management and unions are in their different ways controlling the health and safety agenda and preventing it from being fully adopted by employees.

This creates challenges when trying to embed employee involvement that runs deep into organisations. One of the challenges of a pluralist, high control organisation is how to encourage direct involvement in a culture that places considerable emphasis on

raising issues formally through trade union representatives, or in expressing them through formal procedures.

Leadership skills emerge as critical to managers' ability to share the health and safety agenda and also to share responsibility for it. These include engaging and supporting line managers in activating employees, devolving authority and responsibility, and listening to employees' voices rather than prescribing the health and safety agenda through fixed processes. In pluralist, high control organisations, managers are still setting specific tasks in which employees can be involved. Consequently, employees are not yet able to behave proactively in dealing with health and safety issues, and their skills in dealing with health and safety are primarily the basic ones needed to receive messages, follow instructions, and plan and organise work, combined with some intermediate interpersonal skills involving self-awareness and decision-making.

- **Pluralist, High Involvement Organisations**

This cluster of organisations is characterised by strong trade union organisation, and activity around health and safety is part of the industrial relations culture of such organisations. Joint regulation underpins the interactions and behaviours of management and workers in relation to one another. There is, however, also a significant commitment to investing effort in direct involvement. Indeed, in these organisations, management is evaluated by its ability to develop this at an operational level. Employee involvement is focused on engaging individuals, representatives and groups across a wide range of activities.

Pluralist, high involvement organisations deal with health and safety as strategic and policy issues, as well as practical ones. Senior managers evaluate themselves and

their colleagues on their performance in sharing the agenda and in motivating employees. This self-evaluation is an important leadership tool and skill. There is recognition, too, that line managers play a critical role in supporting employee involvement, and that their leadership skills can make or break an organisation's effectiveness at embedding employee involvement.

The leadership skills of trade union representatives can do so too. Unions in pluralist, high involvement organisations tend to take ownership of health and safety and see their responsibility as being to resolve conflict and to empower employees. In this way, union representatives develop and deploy equivalent leadership skills to those deployed by managers.

These organisations promote widespread dialogue with, and debate within, the workforce rather than relying on frameworks, standards and instructions issuing from the top. They also avoid a culture of blame. As a result, workers share, own and prosecute the agenda in an assertive way. This is a form of leadership among employees, and it marks these organisations out from those in the other three clusters.

This dialogue culture, coupled with task participation, fosters interpersonal and conceptual skills among employees, and their use in the management of health and safety: in developing self-awareness and communications skills as well as team-working skills, in learning from mistakes and solving problems, in questioning and challenging existing practices, in identifying and discussing opportunities for process improvements. The practice of behavioural safety leads to employee involvement that is both wide and deep, and creates such embedded involvement that health and safety management ceases

to be treated as a distinct activity. It becomes local and mainstream, rather than remote and formal.

Soft skills for health and safety management are developed in innovative ways in pluralist high involvement organisations: through health and safety volunteer roles which are treated as important progression routes, through team-working activities and task participation which require individual initiative and creative thinking in assessing and improving work processes, and through trade unions being empowered to deliver certain elements of skills training through representation. These practices demonstrate that taking skills development out of a formal arena and embedding it within mainstream, on-the-ground processes, including those initiated by workers themselves, can be highly effective and can part of the process of sharing ownership.

2.5 Existing Safety Regulations for Workers' Protection.

It should be realized that implementation of safety and occupational health in construction works is not only for compliance purposes. Provision of S&H policies/programs such as workers welfare arrangements, clear and agreeable compensation plans, good working tools, conducive working environment and use of safety gear, has positive result in the productivity for the company, hence increase profit. It should be the endeavour of the Law Enforcing Authorities to inspect construction sites regularly to check *inter alia* provision of PPE and Occupational Health programs. Also there must be a crackdown program whereby the registered contractors will be reviewed from time to time by inspecting the sites followed by visiting the offices to ascertain on the staff employed, plants and equipment and maintenance of office premises as one of

registration criteria as some registered contractors after registration they do not keep key staff and others do not even maintain their offices, plant and equipment as prerequisites for being a registered contractor.

2.5.1 How to Involve Health and Safety Representatives in Consultation

A. This regulation applies if an employer is required under the Act or the Regulations to consult with employees on a matter and the employees are represented by a health and safety representative. For the purposes of section 36(2) of the Act, the employer must involve the health and safety representative in the consultation by:

- providing the health and safety representative with all of the information about the matter that the employer provides, or intends to provide, to the employees; and
- unless it is not reasonably practicable to do so, providing that information to the health and safety representative a reasonable time before providing the information to the employees; and
- inviting the health and safety representative to meet with the employer to consult about the matter; and

- if the invitation is accepted, or if otherwise requested by the health and safety representative, meeting with the health and safety representative to consult about the matter; and

- giving the health and safety representative a reasonable opportunity to express views about the matter; and Issue resolution procedures

B. For the purposes of section 73(1) of the Act, this Part sets out the procedure to facilitate the resolution of health and safety issues arising at a workplace or from the conduct of an employer's undertaking if there is no relevant agreed procedure for resolution of those issues.

2.5.2 Parties to the Resolution of Issues

For the purposes of section 73 of the Act, an employer must notify the employees, any health and safety representative and any health and safety committee in the appropriate manner and languages -

- as to whether the employer intends to participate in the resolution of an issue personally or to nominate an employer representative; and
- if an employer representative is to be nominated, of the name and position description of the employer representative.

2.5.3 Procedure for reporting issues

This regulation applies if—

- a health or safety issue arises at a workplace or from the conduct of the undertaking of an employer; and
- an employee wishes to raise the issue for resolution.

The employee must report the issue to—

- the health and safety representative, if there is a health and safety representative; or
- to the employer or employer representative, if there is no health and safety representative.

An employee may take all steps to report an issue, including leaving the employee's part of the workplace, if the steps are reasonable in the circumstances.

Nothing in this regulation prevents an employee from reporting the issue to the employer or any other person in addition to the health and safety representative.

D. An agreement referred to in sub-regulation (4) must be-

- in a form that is approved by all parties; and
- communicated in the manner and in any language that is agreed by the parties to be appropriate.

Note

Part 4 of the Act sets out the duty of the employer to consult with employees, including involving the health and safety representative (if any). *(Source: Occupational Health and Safety Regulations 2017 S.R. No. 22/2017)*

2.5.4 What is construction work?

In these Regulations, construction work means any work performed in connection with the construction, alteration, conversion, fitting out, commissioning, renovation, refurbishment, decommissioning, or demolition of any building or structure, or any similar activity.

Without limiting sub-regulation (1), work referred to in that sub-regulation includes the following -

- installation, testing, maintenance and repair work performed in connection with the construction work;

- the removal from the workplace of any product or waste resulting from the demolition;
- the prefabrication or testing of elements at a place specifically established for the construction project;
- the assembly of prefabricated elements to form a building or structure or the disassembly of prefabricated elements, that, immediately before the disassembly, formed a building or structure;
- the installation, testing and maintenance of gas, water, sewerage, electricity or telecommunications services in or of any building or structure;
- any work in connection with any excavation, landscaping, preparatory work, or site preparation performed for the purpose of any work referred to in sub-regulation (1) or this sub-regulation;
- any work referred to in sub-regulation (1) performed under water, including work on buoys, obstructions to navigation, rafts, ships and wrecks.

In these Regulations, construction work does not include the following—the assembly, disassembly, prefabrication or manufacture of fixed plant; the prefabrication of elements, other than at a place specifically established for the construction project; routine or minor testing, maintenance or repair work performed in connection with a building or structure;

2.5.5 Duties of employers and self-employed persons

A principal contractor for a construction project must— prepare a health and safety co-ordination plan, in accordance with regulation 336, for construction work before that

work commences; and monitor, maintain and keep the plan up to date for the duration of the construction work.

2.5.6 Content of health and safety co-ordination plans

The principal contractor must include in the health and safety co-ordination plan—

- ✓ a list of the names, positions and responsibilities of all persons who will have specific responsibilities for health and safety; and
- ✓ the arrangements for the co-ordination of the health and safety of persons engaged to perform construction work; and
- ✓ the arrangements for managing occupational health and safety incidents that occur; and
- ✓ any site safety rules, with the arrangements for ensuring that all persons at the workplace are informed of the rules.

2.5.7 Consulting, Informing, Instructing and Training

Consultation with employees and health and safety representatives

For the purposes of section 35(1) of the Act, the operator of a major hazard facility must consult in relation to the following matters—

- ✓ identifying major incidents that could occur at the facility and major incident hazards under regulation 368;
- ✓ conducting a safety assessment;
- ✓ reviewing a safety assessment under regulation 379;
- ✓ adopting or reviewing risk control measures under regulations 371 and 379;
- ✓ establishing and implementing a safety management system;

- ✓ preparing or revising a safety case;
- ✓ developing or reviewing a safety role for employees under this Part;
- ✓ preparing an emergency plan; reviewing and revising an emergency plan under regulation 379.

(Source: Work Health and Safety (Construction Work) Code of Practice 2015)

In Australia, Work Health and Safety (WHS) legislation requires persons conducting a business or undertaking to ensure the health and safety of workers (and other persons exposed to risk because of that work). This requirement clearly justifies an appropriate investment in the infrastructure and activities needed to deliver safe and healthy work. Specifically, legislation imposes a primary duty of care as follows:

WHS Act, Division 2 (s19) Primary duty of care

(1) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of:

(a) workers engaged, or caused to be engaged by the person, and

(b) workers whose activities in carrying out work are influenced or directed by the person, while the workers are at work in the business or undertaking.

(2) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

(3) Without limiting subsections (1) and (2), a person conducting a business or undertaking must ensure, so far as is reasonably practicable:

(a) the provision and maintenance of a work environment without risks to health and safety, and

(b) the provision and maintenance of safe plant and structures, and

(c) the provision and maintenance of safe systems of work, and

(d) the safe use, handling, and storage of plant, structures and substances, and

(e) the provision of adequate facilities for the welfare at work of workers in carrying out work for the business or undertaking, including ensuring access to those facilities, and

(f) the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking, and

(g) that the health of workers and the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers arising from the conduct of the business or undertaking.

(4) If:

(a) a worker occupies accommodation that is owned by or under the management or control of the person conducting the business or undertaking, and

(b) the occupancy is necessary for the purposes of the worker's engagement because other accommodation is not reasonably available, the person conducting the business or undertaking must, so far as is reasonably practicable, maintain the premises so that the worker occupying the premises is not exposed to risks to health and safety.

(5) A self-employed person must ensure, so far as is reasonably practicable, his or her own health and safety while at work.

(Source: model WHS Act (2010), emphasis added)

2.5.8 Occupational & Industrial Safety & Health in Ghana

Annan (2010) states that, Employers in Ghana are required by the Ghana Labour Act 2003, Act 651 to ensure their employees are not exposed to conditions that would lead them to work related injuries or illnesses. Employees are also required to exhibit their duty of care in ensuring that they work as per the employers' standard operating which must incorporate Safety and Health requirements. However, are the Ghanaian workers and the employers aware of their safety and health responsibilities and obligations? The existence of different types of industries, (such as Mining, Construction, Energy, Food Processing, Manufacturing, Agro, Transport and the current Oil and Gas) in Ghana has led to the existence of a large Ghanaian workforce with many Similar Exposure Groups (SEGs), indicating varying modes, extents and frequencies of exposures to different Chemical, Physical, Ergonomic and Biological agents at different workplace.

Current Situation of Occupational / Industrial Safety & Health in Ghana

There are currently two major edicts that have provided guidance in the provision of occupational / industrial safety and health services, practice and management in Ghana.

These include the Factories, Offices and Shops Act 1970, Act 328 and the Mining Regulations 1970 LI 665, but these have only driven the mining and the labor sectors and are therefore very limited in scope, given the multifaceted distribution of industrial operations that we have in Ghana. There is the Workmen's Compensation Law 1987 (PNDC 187) which relates to compensation for personal injuries caused by accidents at

work and hence, indirectly impacts on monitoring worker / workplace safety. The Radiation Protection Board of the Ghana Atomic Energy Commission is also proactive in monitoring companies with radiation exposure hazards for compliance, however, due to limited resources, effectiveness of their activities is compromised. On a proactive side, the Ghana Chamber of Mines in collaboration with the Inspectorate Division of the Minerals Commission form a Technical Committee with representations from each mining company in the nation that reviews and recommends corrective actions for reported or identified unsafe acts, conditions or failures in the existing Health and Safety system of the mining industry. This good initiative is however impeded by availability of resources and hence enforcement is challenged.

There are other statutes which indirectly impact on Occupational Safety and Health and these include the Environmental Protection Agency Act 490 1994, the Ghana Health Service and Teaching Hospital Act 526, 1999 and the National Road Safety Commission Act 567 1999.

Though, Ghana is among the 183 member countries of ILO, which requires, as per the ILO convention number 155 1981, that member countries formulate, implement and periodically review a coherent policy on occupational safety and health and work environment, Ghana has not yet rectified this convention and the nation has no established authority dedicated to Occupational Safety and Health to guide and facilitate the implementation of the "Action at the National Level" as indicated in the R164 Occupational Safety and Health Recommendation, 1981. However, the Labour Act 2003, Act 651, Part XV, sections 118 to 120 apparently directs employers and employees in their roles and responsibilities in managing Occupational Health, Safety and Environment

in the nation, but is not specific about whom to report accidents and occupational illnesses to. It is not clear or does not specify what to consider as Occupational Illness. It does not specify who to be responsible for ensuring the industries in Ghana implement corrective actions as per recommendations.

Currently, accidents that occur in factories are expected to be reported to the Department of Factory Inspectorate but Companies hardly report such events to the inspectorate for investigation and correction. When these accidents get reported, it takes a long time before corrective or preventive actions get implemented, hence, there is a little or no positive effect of the action of the DFI on the factories.

The nation has seen some positive "Safety and Health practice infection" among some of our Ghanaian companies due to the influx of some multinational companies into the country, given their corporate expectations with specific requirements in Occupational Safety and Health practices. This stems from their requirements for the contractors, and subcontractors, some of whom are Ghanaian, to follow their Health and Safety standards. Currently, the Oil and Gas sector has introduced their side of approach to managing health and safety. This is purely based on risks and it definitely is an improvement on what is existing. In as much as this is a good effort and helps the Ghanaian to know there is more to Occupational Safety and Health than we have specified in our legal framework, it tends to confuse the Ghanaian the more with regard to which standard to follow in the nation, and what is required to make employees and employers accountable.

In the academia, Occupational Health is not an option for specialization in a typical Ghanaian medical school. Safety engineering has not found its way into any of

our Engineering curricula in Ghana yet. A potential intervention is the proposed Safety and Environmental Engineering program which is being expected to commence at the University of Mines & Technology, but this is not approved yet. All other Safety & Health training programs are run either by international agencies or some few Ghanaian organizations but none of these match up to even a first degree, and the big question is, to what Ghanaian standards are these courses being run? When do we say a provision made by a company meets requirement and what requirement would we be measuring against or what do we call Ghanaian standard? When do we say a company has exhibited due diligence in preventing harm to a worker, and under what circumstance a worker has been or not been negligent regarding an undesired event? Suggested Approach to Occupational Safety & Health Management in Ghana.

National Policy

- The nation has to adopt or develop a broad base Occupational Safety and Health policy that is in line with the ILO convention 155 as a minimum. This must seek to address Safety and Health issues regarding all projects and operations from design stage, through procurement, construction, operation and decommissioning. The aim of this must seek to first protect the worker from injuries and work

related ill-health, ensure standards are put in place to prevent losses property damages due to accidents, and must show the Ghana Government's commitment.

- Achieving this means all the scattered generic Occupational Safety and Health requirements under the different agencies of the Ghana Government such as the Environmental Protection Agency, Department of Factory Inspectorate, Inspectorate Division of The Ghana Minerals Commission and the Ghana Labor

Commission with confusing responsibilities must be brought under a common umbrella body. Such a body must be empowered and resourced adequately to enable them organize how the policy would be implemented nationwide and by who. *(Source: Ghana web, Archived Articles)*

2.6 Getting the View of the Workers

In a report by Fidderman and McDonnell (2010) to the Health and Safety Executive (HSE) Galloway A. is clear as to the benefits of consultation, which, he believes, will "result in improved decision-making, ownership of such decisions and resulting increased commitment." The company advises it consults on many issues. Nearly all consultation will take place through the six-weekly safety committee meeting; there is no formal mechanism for consulting each member of the workforce individually, although toolbox talks do elicit views. The company is less inclined to consult on issues that it considers are strict legal responsibilities or where there is no relevant expertise among the workforce. Even here, however, Alan would respond to any comments that were proffered.

Alan does, however, ensure he has direct contact with the workforce and seeks the views of workers on issues that directly affect them: it would be remiss, he explains, not to talk to a machine operator about machinery, although he doubts the workforce would be interested in talking about company health and safety policy statements. "The answers", he says, "are always out there and there are guys who, as you walk by, will say 'why don't you do x, y and z'". These, he says, "are exactly the kind of people you want on the committee – people who are able to think outside the box but are not

complainers". But he also appreciates that some of these individuals are "not the committee type", so the company needs other ways of involving them: the first thing he does each morning and afternoon is to walk around the site. He will also ask for views during risk assessments and toolbox talks. In short, he "knows which people to ask".

As a result of the forum, employee suggestion boxes appeared at Timbmet sites towards the end of 2009. At Glasgow, the box is seen very much as an add-on to existing means of gathering information and one that is unlikely to elicit many suggestions. And while the company does not use "documented" confidential reporting lines to senior managers, it is something that is "certainly encouraged".

2.7 The Changing Definition of Health and Safety

Definitions of health and safety have moved from a concentration on injuries and accidents, and now emphasis the need to prevent people being harmed by work or becoming ill by providing a satisfactory working environment. The HSC's Strategy for workplace health stresses the importance of doing: '… more to address the new and emerging work-related health issues.'

This change of emphasis occurred because, of some 40 million days lost to occupational ill health and injury at work in 2001/2002, over 30 million were attributable to ill health.8 The HSC/E is, therefore, facing the task of raising the awareness of both employers and employees to these work-related health issues. One of the most recent of them is work-related stress, a health problem that has become an area of increasing concern9. Other work-related health problems to have received media attention of late are breathing problems, for example asthma, the development of which has been linked to

working in certain environments such as the manufacture of bread and other flour-based products.

Other divisions and agencies within the Department for Work and Pensions (DWP) are also promoting policies to prevent the development of work-related health conditions, particularly linked to the Department's aim of extending working lives and reversing the decline in older people's employment rates. Health problems and/or disability are key factors influencing the early retirement of people in their fifties10, for example, a survey of 2,800 people aged 50-69 found that 50 per cent of those not in work were not seeking paid employment for reasons of ill-health.

The importance of health issues has come about at a time when research has evidenced a decline in occupational health provision in the workforce as a whole. In 1991 50 per cent of the workforce worked in an organisation where there was occupational health provision; only three in ten did so in 2001. These results contrast with a TUC survey12 carried out in trade unionised workplaces which found that the percentage of employers providing occupational health services increased from 70 per cent in 1998, to 75 per cent in 2000 and 85 per cent in 2002. This suggests, therefore, that there is a greater likelihood of occupational health services being present in large unionised organisations than in non-unionised SMEs. The presence of occupational health services also varies with sector13, as does the presence of health and safety policies, and involvement of workers in health and safety initiatives, more generally.

Some research is available on the ways in which employees themselves define health and safety. People, Science and Policy carried out one recent example for the HSE. This project was designed to provide input to the employee involvement strategy from

small business employers, the self-employed and non-unionised employees. It found that most workers thought health and safety was an important issue in the workplace, though this attitude emerged after prompting rather than when first asked. It was not a 'top of the mind' issue. The research also found that health and safety were linked, though when discussed in more detail, respondents made a distinction between safety – defining it as one-off incidents; and health, which was defined as of longer term impact.

Further research carried out for the HSE by MORI in early 2004, reported similar findings. Employers and employees perceptions of health and safety were affected by the size of their organisation, their employment status and the industry they worked in. For example, employees in manufacturing and construction were more aware of the issue than those working in financial services. The research also found that employers tended to place more importance on health and safety than employees, and employers in large organisations were more concerned about the implications of health and safety than their counterparts in small businesses.

In general, the MORI research found that health and safety was mainly understood as a matter of rules and regulations; employers and workers identified the common sense of staff as the main way of improving health and safety.

2.8 The Worker Safety Adviser Pilot

To test ways of encouraging greater employee involvement in health and safety, in 2002 the HSE piloted the Worker Safety Advisers (WSA) initiative. The aim of the initiative was to develop the health and safety practices of organisations that did not have trade union recognition through the development of partnerships between trade unions,

employers and workers. The pilot ran in four sectors (automotive engineering, construction, hospitality and voluntary sector) and two thirds of the employers participating in the pilot had less than twenty-five employees.

Changes to the approach to health and safety were reported by some three quarters of the employers who took part in the pilot. Specific changes made included: joint training for managers, the production of new and/or revised policies and procedures, and the involvement of workers in risk assessments.16 Following on from the success of the pilot, the Workers' Safety Adviser Challenge Fund was launched in 2003 with three million pounds of funding allocated to the initiative, over a three year period, with the overall aim of promoting greater employer and employee involvement in health and safety.

(Source: Health and Safety Executive's Declaration on Worker Involvement in Health and Safety)

2.9 Work Organisation and Employee Involvement in Europe

A report based on the Fifth European Working Conditions Survey published in 2013, indicates that, the importance of a highly skilled workforce for economic growth, the need to develop systems of work organisation to foster employee motivation and well-being is likely to become increasingly important to the policy agenda. It has been argued that organisations with high levels of employee involvement will be particularly successful in this respect. At present, relatively little is known about the prevalence of employee involvement across the EU and the factors that encourage it. The extent to which employee involvement leads to mutual benefits for the employee and employer is

also controversial. The report Work organisation and employee involvement in Europe draws on data from Eurofound's fifth European Working Conditions Survey (EWCS) of 2010 to investigate these issues and to strengthen the evidence available.

2.9.1Key findings and Highlights of the Report

2.9.2 Patterns of employee involvement

Employee involvement refers to the opportunities for employees to take part in decisions that affect their work. It is concerned with the capacity of employees to influence decisions as individuals rather than through representatives. It is often used synonymously with the term 'direct participation'. Opportunities can be provided which may or may not be taken up; employee involvement therefore includes not only effective influence but latent capacities for action. It is the common concept that underlies diverse notions of 'new forms of work organisation' – whether 'high involvement', 'high performance' or 'learning organisations' – and it provides a core theoretical dynamic of their arguments.

In principle, it is possible to distinguish three levels of employee involvement:

- ✓ higher level decisions such as investment, work- force structure and product development;
- ✓ involvement in decisions about work organisation;
- ✓ involvement in decisions about the immediate job task.

Although there is little consensus in the literature about nomenclature, this report refers to these three levels as 'strategic participation', 'organisational participation' and 'task discretion', respectively.

In practice, the fifth European Working Conditions Survey has a well-established set of indicators of task discretion, an enhanced set of questions on organisational participation and no questions for measuring strategic participation. The forthcoming wave of the European Company Survey (ECS) should provide a richer source of evidence with respect to strategic participation. This report therefore focuses on the second and third levels of involvement.

Previous empirical research has primarily examined involvement at the level of the job task or task discretion (Hackman and Oldham, 1980; de Terssac, 1992; Gallie et al, 2004; Gallie, 2007). This research revealed the limitations of workplace reform focused solely on the distribution of decision-making powers between front- line supervision and employees. This in turn has increasingly led to a view that task-level involvement practices are only likely to be effective and durable when they are embedded more widely in organisational practices (Frobel & Marchington, 2005). Some research has pointed to significant country variations in employee participation in wider organisational decisions (IDE, 1981; Tannenbaum and Rozgonyi, 1986; Heller et al, 1998). However, the relationship between different levels of involvement is empirically underexplored. Therefore, an assessment of patterns of employee involvement also requires an examination of employee influence over wider decisions about work organisation (organisational participation) and the way these relate to immediate job control.

Employee involvement systems are conceptualised in terms of combinations of the two dimensions – task discretion and organisational participation. Schematically this gives a matrix of four types of organisational context.

In the EU27 overall, most of the workforce is in organisations that provide very limited opportunities for employees to participate in decision-making, either in their immediate job or in relation to wider organisational issues affecting their work. While 38% of employees were in low involvement organisations in 2010, just 27% were in high involvement organisations, with 35% in organisations that offer intermediate levels of involvement. There were marked differences between countries in the control that employees can exercise over their work tasks, their involvement in wider organisational decision-making and the likelihood that they work in a high involvement organisation. The Nordic countries (Denmark, Finland and Sweden) had the highest levels of involvement, while the Southern countries (Greece, Italy, Portugal and Spain) and the East-South countries (Bulgaria and Romania) had particularly low levels of involvement. The high levels of involvement in Nordic workplaces are evident even when a wide range of factors relating to individual characteristics and economic structures are controlled for. This suggests that it is influenced by a distinctive policy environment. There were also important differences among the new Member States that joined the EU in 2004 and 2007. The East-North group of countries (Estonia, Latvia & Lithuania) had relatively high levels of involvement, being closer to the Nordic pattern than either the East-Central (Czech Republic, Hungary, Poland, Slovakia and Slovenia) or East-South groups.

Gender differences in involvement were relatively small, although women tended to have greater control over their immediate job tasks, while men had more say over wider organisational decisions.

Source: Eurofound (2013).

Figure 2.3: Determinants and consequences of employee involvement

2.9.3 Determinants of Employee Involvement

It is possible to distinguish at least six potential influences on the prevalence of employee involvement systems. These are:

- ✓ the characteristics of the work task;
- ✓ the nature of employer flexibility policies;
- ✓ organisational human resources capacity;
- ✓ the availability of consultative and representative institutions;
- ✓ the type of ownership;
- ✓ the nature of employment regulation.

However, the arguments about specific mechanisms are quite diverse. Moreover, they differ as to whether specific factors are viewed as direct determinants or mediators of the efficacy of employee involvement.

Arguments about the characteristics of work tasks have focused on two different types of factors:

- ✓ the type of work in the sense of the nature of the work process;
- ✓ the skill level of the job.

Theories regarding the importance of types of work point in rather different directions. The most substantial body of research has looked at the effects of technology on job tasks. Theories of automation (Blauner, 1964; Woodward, 1970; Piore and Sabel, 1984) postulated that technical development was reversing earlier trends towards the simplification of work and the reduction of employee influence over the work process. Discussions about the growth of services pointed in a similar direction, with the view that work that is primarily concerned with people would require greater involvement of employees in every- day decisions about their work (Bell, 1974). However, there is also an extensive literature on the enhanced powers of monitoring and control that advanced technologies provide to employers.

Skill has also been seen consistently as a major factor affecting employee influence over decisions (Zhou, 2009). Occupational class theory postulates a very different employment relationship between higher skilled and lower skilled employees. For the former, employers are concerned to mobilise discretionary effort and ensure retention, while the priority for the latter is to maximise flexibility to hire and fire. The logic of this argument implies that employee involvement opportunities will be primarily directed at those in more skilled occupational positions.

The potential importance of flexibility policies derives from literature about the way employers may have been adapting to greater product market uncertainty. Some theories of innovation suggest that product market uncertainty provides the conditions for higher involvement through ‘organic’ as distinct from ‘mechanistic’ organisational

structures (Burns and Stalker, 1961). The re-emergence of interest in employee involvement in the managerial literature was premised on the increasing importance of product and service quality in an increasingly competitive environment (Walton, 1985; Wyer and Mason, 1999; Wall et al, 2002). However, other theories of the implications of increased competitive pressure and uncertainty underlined the necessity of enhanced numerical flexibility, which was unlikely to be conducive to employee involvement (Atkinson, 1985; Capelli et al, 1997).

Segmentation and flexibility theories have argued that differences in employment relationships are centred on differences in contractual status. Employees in permanent and full-time work benefit from generally privileged employment relationships that would be conducive to employee voice, whereas temporary and part-time employees constitute a peripheral workforce with generally disadvantageous employment conditions. This has been linked to gender disadvantages in employment, leading to the expectation that women will have fewer involvement opportunities than men given their greater concentration in part-time and temporary work. Such arguments clearly have relevance for the issue of the implications of the economic cycle or major economic crises for decisions about work organisation and workforce structure.

It seems plausible that effective employee involvement systems require relatively sophisticated human resources capacity. This is particularly the case in larger scale organisations that face more complex problems in the coordination of work activities. The existence of such capacity is not easy to establish from an employee survey, but it is likely to be reflected in more employee-centred systems of supervision, greater use of

teamwork, stronger systems of performance assessment, and opportunities for career advancement and reward systems that reflect collective performance.

Ownership characteristics have also been seen as potentially important for the pattern of employment relations. In general, employees in the public sector have been thought to benefit from more progressive employment policies than those in the private sector, if only because it was more difficult for the state to avoid implementing regulations designed to improve employee welfare in organisations that it controlled directly. At the other extreme, employees in small and medium-sized enterprises (SMEs) are often assumed to be relatively vulnerable to directive forms of management, since ownership is commonly with private families who wish to retain their managerial prerogatives.

Finally, and least elaborated, it has been suggested that there are major differences in the character of the employment relationship not only within, but between countries as a result of different national systems of employment regulation. Particularly influential has been the argument of 'varieties of capitalism' or 'production regime theory': those differences in the coordination practices of employers and in systems of skill formation are associated with differences in the importance attached to employee involvement (Soskice, 1999; Hall et al, 2001). There are, however, alternative accounts of national difference that emphasise power relations in the wider society or cultural path dependency (for instance with respect to trust, authority and gender cultures).

Table 2.1: Types of employee involvement

	High organisational participation	Low organisational participation
High task discretion	High involvement organisation	Discretionary organisation
Low task discretion	Consultative organisation	Low involvement organisation

Source: Hall et al, (2001)

2.9.4 Consequences of Employee Involvement

To examine outcomes, the report focuses on four issues that are crucial to the debate about the positive-sum or zero-sum nature of organisational structure:

- ✓ learning opportunities at work;
- ✓ employee motivation;
- ✓ work and employment conditions;
- ✓ employee well-being.

2.9.4.1 Learning opportunities at work

The scope for learning new things at work is a critical aspect of work organisation in an increasingly knowledge-intensive work process with rapid technical change. There are plausible grounds for the view that higher levels of involvement enhance learning opportunities. Where employees are given more responsibility, employers have an interest in ensuring that they are adequately trained to take sensible decisions. Furthermore, involvement in decisions on the job provides opportunities for on-the-job learning through the everyday work process (Felstead et al, 2010; Gallie et al, 2012). If the economic crisis has entailed reduced employee involvement, it may then have

reduced learning opportunities at work, with important additional costs for future productivity.

2.9.4.2 Employee Motivation

In this report, employee motivation refers to a disposition to achieve sustained high quality work performance. As such, employee motivation has both task and organisational dimensions. In its task dimension, it designates the willingness to put in discretionary effort, which is likely to be closely related to the perceived interest and usefulness of work tasks. In its organisational dimension, it designates commitment to the employing organisation, which may be reflected in feelings of belongingness, shared values and adequate rewards.

Higher involvement is presumed to enhance motivation in two different ways. First, it is considered to be intrinsically valued, so that employees are more likely to emotionally invest in jobs that provide rewards of self-determination. Second, by providing opportunities for voice, it makes it more likely that other aspects of working conditions and work rewards match employee expectations.

The first 'intrinsic' source of motivation is likely to depend on the value employees attach to self-determination. Some suggest that this may vary both by skill level and gender (for example, with lower work centrality among female employees). But robust evidence on such differences in work values is still lacking.

2.9.4.3 Work and Employment Conditions

Extensive research over several decades has pointed to the general deterioration of working conditions that accompanied the extreme simplification and division of tasks

characteristic of Tayloristic systems of production (Friedmann, 1946; Chinoy, 1955; Braverman, 1974; Durand, 1978; Durand and Hatzfeld, 2003). There are grounds for expecting that higher involvement work systems are associated with higher standards of health and safety at work. The greater the employees' control over decisions, the more likely it is that work intensification will be kept in check. Indeed this was one of the original motivators of the emphasis on removing their control in 'scientific management'.

2.9.4.4 Employee Well-being

A key issue is the capacity of work to enhance employee well-being. An important aspect of this is the implications for psychological well-being (that is, its capacity to enhance positive affective psychological states). But these also may find physiological expression such as anxiety in muscular tension and rapid heart rate, depression in sleep disturbance, fatigue and loss of appetite. It has been shown that enduring negative well-being is reflected in higher sickness absence and can be a significant cause of physical ill-health.

Perhaps the most influential (although still controversial) theories on the links between employee involvement and affective well-being are:

- ✓ 'demand–control' theory, which postulates the importance of employee control in mediating the psychological impact of work pressure;
- ✓ the theory of 'organisational justice', which emphasises the importance of procedural adequacy and predictability in adapting to perceived threats to personal well-being.

However, some have argued that involvement practices undercut employee well-being through their implications for the intensification of work (Barker, 1993). An issue that crosscuts all these themes is whether employee involvement has similar consequences for men and women. High levels of female labour market participation are relatively recent in many countries and there has been considerable debate about whether women's orientations to work, in particular with respect to the intrinsic aspects of work, are similar or different to those of men. One influential line of argument has suggested that employment is less central to women's life values and identity (Hakim, 1991, 1996). If this is the case, it could be that employee involvement matters less to women and that its consequences for both motivation and well-being are correspondingly less great. However, good research evidence on work orientations, especially of a comparative type, is scarce.

2.10 Safety Considerations in the Work Environment in Ghana

Parliament of the Republic of Ghana in 2003 passed the labour Act, 2003(651) which became active on the 8th of October 2003. The Act 651 was passed to amend and consolidate the laws relating to labour, employers and industrial relations among others. Under this Act the Minister of Manpower Youth and Employment is empowered to use legislative instrument to make regulations providing for specific measures to be taken by employers to safeguard the health and safety of workers employed by them.

Section 10 of the Labour Act 2003 deals with rights of a worker and makes working under satisfactory, safe and healthy conditions a right of the worker. However, since all

rights go with some amount of responsibility the worker has been charged with the duty to take all reasonable care for the safety and health of fellow workers.

Part XV of labour Act 651 deals specifically with occupational health and safety conditions under section 118 and states as follows:

1. It is the duty of an employer to ensure that every worker employed by him or her works under satisfactory, safe and healthy conditions

Without limiting the scope of subsection (1), an employer shall

1. provide and maintain at the workplace, plan and system of work that are safe and without risk to health;
2. ensure the safety and absence of risks to health in connection with use, handling, storage and transport of articles and substances;
3. provide the necessary information, instructions, training and supervision having regard to the age, literacy level and other circumstances of the worker to ensure, so far as is reasonably practicable, the health and safety at work of those other workers engaged on the particular work;
4. take steps to prevent contamination of the workplaces by, and protect the workers from, toxic gases, noxious substances, vapours, dust, fumes, mists and other substances or materials likely to cause risk to safety or health;
5. supply and maintain at no cost to the worker adequate safety appliances, suitable fire-fighting equipment, personal protective equipment, and instruct the workers in the use of the appliances or equipment;

6. provide separate, sufficient and suitable toilet and washing facilities and adequate facilities for the storage, changing, drying and cleansing from contamination of clothing for male and female workers;
7. provide adequate supply of clean drinking water at the work-place; and
8. Prevent accidents and injury to health arising out of, connected with, or occurring in the course of, work by minimizing the causes of hazards inherent in the working environment.

The Act further states in section (3) that it is the obligation of every worker to use the safety appliances, fire-fighting equipment and personal protective equipment provided by the employer in compliance with the employer's instructions. In this regard the worker has been made to understand that the employer shall not be liable for injury suffered by a worker who contravenes subsection of the provisions where the injury is caused solely by non-compliance by the worker.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

As it is indicated in the title, this chapter would include the research methodology of the project work. In more details, in this part, the author would outline the research design, the research instrument, and the methods of data collection, the selection of the sample, the research process, the type of data analysis, the ethical considerations.

3.1 Research Design

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the "research design". Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact, the research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data.

An exploratory (Quantitative) approach would be used for the study with descriptive methods to discuss the results. This particular method would be adopted since the primary aim of the study is to discover facts and obtain insights into the case under study.

3.2 Population

This would be a targeted group from which the researcher is interested in gaining information and drawing conclusions. Therefore, the population of the study would be made up of all identifiable construction companies within the category of D1K1 and D2K2 in both Asutifi North and South Districts of the Brong Ahafo Region. Information would be sought from top management members, site supervisors as well as field workers and other relevant players in the construction industry.

3.3 Sample and Sampling Techniques

According to Kothari (2004), there are different types of sample designs based on two factors viz., the representation basis and the element selection technique. On the representation basis, the sample may be probability sampling or it may be non-probability sampling. Probability sampling is based on the concept of random selection, whereas non-probability sampling is 'non-random' sampling. On element selection basis, the sample may be either unrestricted or restricted. When each sample element is drawn individually from the population at large, then the sample so drawn is known as 'unrestricted sample', whereas all other forms of sampling are covered under the term 'restricted sampling'

He continues to explain that, non-probability sampling is that sampling procedure which does not afford any basis for estimating the probability that each item in the population has of being included in the sample. Non-probability sampling is also known by different names such as deliberate sampling, purposive sampling and judgement sampling. In this type of sampling, items for the sample are selected deliberately by the

researcher; his choice concerning the items remains supreme. Based on the above explanations, the researcher shall use non-probability sampling. A sample size of fifty (50) was selected for the study.

3.4 Research Instrument

Questionnaires would be the main instrument for the study. May (2001), maintains that, the rationale for adopting survey questionnaire to help ascertain the needed information about the respondents selected for that particular study. The questionnaire has the advantages of allowing the researchers to collect data from a group of respondents at the same time and it is easy to score. Another advantage of the questionnaire to this study is that it will consist of questions that can be used to explore, investigate and analyse from the respondents on the issues under study. The research instrument was developed by taking into consideration the research questions. The questions were mainly close ended items. Set of questionnaires would be designed for managements, supervisors and field workers. A four-point Likert scale questionnaire would be used with various score values. The questionnaire would be designed with respect on the research questions. The items on the questionnaire would score as Strongly Agree (SA) =4, Agree (A) =3, Strongly Disagree (SD) =2, and Disagree (D) =1, and others would be scored as Very Often (VO) =4, Often (O)=3, Sometimes (S)=2 and Never (N)=1, etc.

People's knowledge about certain critical information would be sought, thereby allowing them to write their opinions, but notwithstanding this; the researcher would interpret and write their opinions where necessary.

3.5 Data Collection Procedure

The task of data collection begins after a research problem has been defined and research design/ plan chalked out. While deciding about the method of data collection to be used for the study, the researcher should keep in mind two types of data viz., primary and secondary. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process.

The researcher would have to decide which sort of data he would be using (thus collecting) for his study and accordingly he will have to select one or the other method of data collection. The methods of collecting primary and secondary data differ since primary data are to be originally collected, while in case of secondary data the nature of data collection work is merely that of compilation. We describe the different methods of data collection, with the pros and cons of each method.

3.5.1. Primary Source

In the quest to obtain firsthand information from these targeted groups, questionnaires, interviews and observation would be used.

3.5.1.1 Questionnaires

In order to obtain rich and authentic information from the people, questionnaires would be designed for employers and employees (managements, supervisors and field workers). At least a total of 70 questionnaires would be issued to these groups to solicit from them, the information required for this study. The aim and the objectives of this

research would be read out and explained to the employees for them to have the basic view and the understanding of what the whole project is all about. Those of the workers who would be capable to write, read and understand would be given the chance to answer the questionnaires to answer on their own, whiles the rest with the problem of being able to read, write and understand be assisted by the researcher by way of explaining the questions to them while they tick the correct answers based on the respective questions. Where questions demand written answers from respondents, the researcher would seek their opinions and do the writing for them. In the case where respondents can neither read nor write, the researcher would assist them in that regard.

3.5.1.2 Interview

The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method can be used through personal interviews and, if possible, through telephone interviews. But in the case of this research work, workers would be interviewed to ascertain how they directly or indirectly get involved in decision making in the company is concerned with regards to health and safety.

3.5.1.3 Observation

The observation method is the most commonly used method especially in studies relating to behavioural sciences. In a way we all observe things around us, but this sort of observation is not scientific observation. Observation becomes a scientific tool and the method of data collection for the researcher, when it serves a formulated research purpose, is systematically planned and recorded and is subjected to checks and controls

on validity and reliability. Under the observation method, the information is sought by way of investigator's own direct observation without asking from the respondent, explains Kothari (2004),

In this regard, a maximum of 21 days would be set aside to visit the identified construction companies to assess their information flow and to test workers' knowledge of health and safety regulations and their compliance. This would be an unstructured form of observation.

3.5.2. Secondary Source

The secondary sources of information were from e-books, articles, journals from the internet which helped to obtain much information and also brought a lot of insight and understanding of the topic under research and also helped the researcher to put together certain topical issues that should and have been included in the study.

3.6 Data Analysis

Data collected for the study would be analysed with the Version 16 of the Statistical Package for Service Solution (SPSS). Descriptive statistical methods would be used to analyze the data for discussion. The data would be presented with frequency tables and percentages that would sum up the views of respondents. The results of the analysis would be presented in accordance with the research questions for discussion.

3.9 Ethical Considerations

The current study would be subjected to certain ethical issues. All participants would be reassured that their participation in the research is voluntary and that they are free to withdraw from it at any point and for any reason.

Moreover, participants would be fully informed regarding the objectives of the study, while they would also be reassured that their answers is going to be treated as confidential and used only for academic purposes and only for the purposes of the particular research. Except from the above, participants would not be harmed or abused, both physically and psychologically, during the conduction of the research. In contrast, the researcher would attempt to create and maintain a climate of comfort.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

The main aim of this research was to examine construction site workers' involvement in health and safety decision making in some selected Districts (Asutifi North and South) of D1K1 and D2K2 contractors. The specific objectives of the study were to identify ways in which construction site workers are directly or indirectly involved in health and safety matters. Secondly, to assess construction site workers' awareness on health and safety issues relating to the work environment; and, make recommendations for enhancing health and safety performance of construction sites based on the findings of the study. The analysis of the study was based on these research objectives.

4.1 Response rate of the Study Participants

The researcher sent a total of 50 questionnaires to gather information from the study participants. Out of 50 questionnaires sent out for primary data, 43 questionnaires were received while 7 questionnaires were not received. Therefore, the analysis of the study was based on 94% response rate (see Figure 4.1).

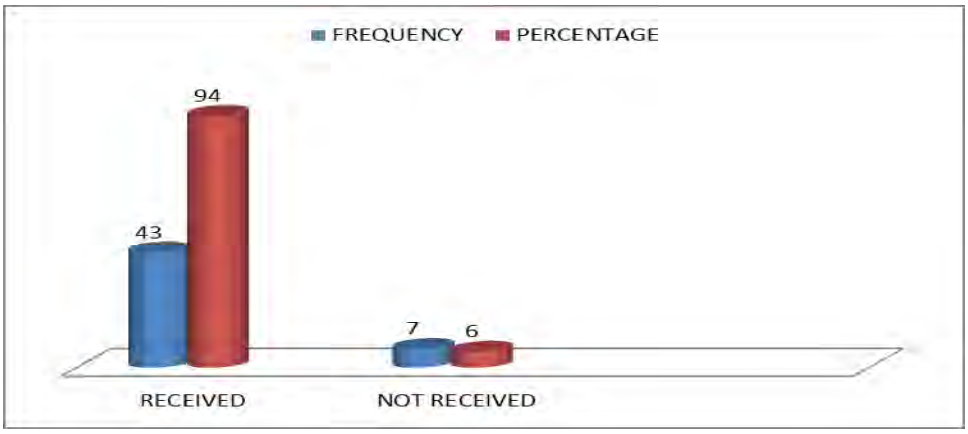


Figure 4.1 Response rates of the Study Participants

4.2 Demographic Characteristics of Study Participants

Table 4.1, gives results on the demographic characteristics of the respondents used for the study.

Table 4.1 Demographic Characteristics of Study Participants

		Number of Respondents	
Characteristic	Sub-character	Contractors	Site supervisors
Gender	Male	17 (100)	26 (100)
	Female	0	0
Age (Years)	< 29	0	0
	30 – 39	5 (29.4)	6 (23)
	40 – 49	7 (41.2)	12 (46)
	50 – 59	5 (29.4)	8 (31)
	60+	0	0
Educational qualification	GCE O & A Levels	0	7 (27)
	Diploma	5 (29.4)	13 (50)
	Degree	8 (47)	6 (23)
	Masters	4 (23.6)	
Working Experience	1 – 4	3 (17.6)	6 (23)
	5 – 9	5 (29.4)	13 (50)
	10+	9 (53)	7 (27)

n=43, Source: Field survey, Rockson, (2018)

Table 4.1 shows that all the 17 contractors representing 100% were males. Also, all the 26 site supervisors were males. Moreover, 7 contractors representing 41.2% were between the age ranges 40-49 years, 5 contractors representing 29.4% were between the age ranges 30-39 years and 50-59 years respectively. Furthermore, 12 site supervisors representing 46% were between the age ranges 40-49 years, 8 site supervisors representing 31% were between the age ranges 50-59 years, while 6 site supervisors representing 23% were between the age ranges 30-39 years.

To add more, 8 contractors representing 47% were holding Bachelor's degree as their highest academic qualification, 5 contractors representing 29.4% were holding Diploma as their highest qualification while 4 contractors representing 23.6% were Master's degree holders. Furthermore, 13 site supervisors representing 50% were possessing HND as their highest academic qualification, 7 site supervisors representing 27% were holding GCE O and A levels, while 6 site supervisors representing 23% were Bachelor's degree holders.

Table 4.1 indicates that 9 contractors representing 53% have worked in the construction industry for more than 10 years, 5 contractors representing 29.4% have worked in the construction industry for 5-9 years while 3 contractors representing 17.6% have 1-4 years working experience. Moreover, 13 site supervisors representing 50% have worked in the construction industry for 5-9 years, 7 site supervisors representing 27% have more than 10 years working experience in the construction industry, while 6 site supervisors representing 23% have 1-4 years working experience in the construction supervision.

With regards to age, younger staff were generally felt to have more positive attitudes to health and safety than older staff, therefore, would be more likely to be involved, whereas older workers were regarded as 'set in their ways' and as not being interested in changing their approach to the issue.

4.3 Knowledge in Health and Safety Practices/Regulations

Table 4.2 assessed the knowledge in health and safety practices/regulations

Table 4.2: Knowledge in Health and Safety Practices/Regulations

Do you have a safety officer in the company?	Frequency	Percent
Yes	39	90.7
No	4	9.3
Total	43	100.0
Is he/she a health and safety professional?		
Yes	38	88.4
No	5	11.6
Total	43	100.0
Do you know of any Acts/Law/Regulation in Ghana that protects Health and Safety of workers.		
Yes	40	93.0
No	3	7.0
Total	43	100.0

n=43, Source: Field survey, Rockson, (2018)

Table 4.2 reveals that 39 respondents representing 90.7% affirmed that their construction firms have safety officers while 4 respondents representing 9.3% said that their construction firms do not safety officers in the company. Furthermore, 38 respondents representing 88.4% said that the safety officer is a health and safety

professional while 5 respondents representing 11.6% said that the safety officer is not health and safety professional. Also, 40 respondents representing 93% revealed that they know Acts/Law/Regulation in Ghana that protects Health and Safety of workers while 3 respondents representing 7% said that they do not know of any Acts/Law/Regulation in Ghana that protects Health and Safety of workers.

The Act further states in section (3) that it is the obligation of every worker to use the safety appliances, fire-fighting equipment and personal protective equipment provided by the employer in compliance with the employer's instructions. In this regard the worker has been made to understand that the employer shall not be liable for injury suffered by a worker who contravenes subsection of the provisions where the injury is caused solely by non-compliance by the worker.

Table 4.3: Health and Safety practices you consider in your company

Health and Safety practices you consider in your company	Frequency	Percent (%)
Provision of Personal Protective Equipment	12	27.9
Welfare Facilities (staff bus, wash and changing rooms, etc)	4	9.3
Provision of tools and equipment	6	14.0
Medical Examination (Before/During/Exit)	4	9.3
Training and Workshops	5	11.6
Emergency Procedures	4	9.3
Proper channels of reporting accidents/incidence/near-misses	4	9.3
Proper investigative procedures	4	9.3
Total	43	100.0

n=43, Source: Field survey, Rockson, (2018)

Table 4.3 reveals that 12 respondents representing 27.9% indicated that they provided personal protective equipment, 6 respondents representing 14% provided tools and equipment, 5 respondents representing 11.6% provided training and workshops, while 4 respondents representing 9.3% revealed that welfare facilities (staff bus, wash and changing rooms, etc), medical examination (before/during/exit), emergency procedures, proper channels of reporting accidents/incidence/near-misses, and proper investigative procedures are the health and safety practices they consider in their construction company respectively.

The importance of health issues has come about at a time when research has evidenced a decline in occupational health provision in the workforce as a whole. In 1991 50 per cent of the workforce worked in an organisation where there was occupational health provision; only three in ten did so in 2001. These results contrast with a TUC survey12 carried out in trade unionised workplaces which found that the percentage of employers providing occupational health services increased from 70 per cent in 1998, to 75 per cent in 2000 and 85 per cent in 2002. This suggests, therefore, that there is a greater likelihood of occupational health services being present in large unionised organisations than in non-unionised SMEs. The presence of occupational health services also varies with sector, as does the presence of health and safety policies, and involvement of workers in health and safety initiatives, more generally.

Table 4.4: Channels of Communication

Channels of Communication	Frequency	Percent
Staff /Committee Meetings	14	32.6
Posters/Newsletters/Company Magazine	9	20.9
Toolbox talks and Team Briefing	11	25.6
Informal Discussions	6	14.0
Forums/Training and Workshops	3	7.0
Total	43	100.0

n=43, Source: Field survey, Rockson, (2018)

Table 4.4 shows that 14 respondents representing 32.6% said that the construction firm used staff/committee meetings to disseminate safety information, 11 respondents representing 25.6% indicated that they used toolbox talks and team briefing, 9 respondents representing 20.9% said that they used posters/newsletters and company magazine to communicate safety tips to staff, 6 respondents representing 14% used informal discussions while 3 respondents representing 7% indicated that they used forums/training and workshops to enhance communication.

Table 4.5: Direct and indirect involvement of workers

STATEMENTS	1 n(%)	2 n(%)	3 n(%)	4 n(%)	5 n(%)	Total n(%)
Workers are always consulted before every decision is taken.	31 (72.1)	4 (9.3)	2 (4.7)	6 (14)	-	43 (100)
Suggestions and opinions of workers are inculcated in the overall health and safety management systems in the company.	16 (37.2)	21 (48.8)	3 (7)	2 (4.7)	1 (2.3)	43 (100)
Workers are allowed to make suggestions that seek to improve upon their own safety on site.	11 (25.6)	15 (34.9)	3 (7)	6 (14)	8 (18.6)	43 (100)
Workers are motivated enough to report hazardous /dangerous occurrences on site.	15 (34.9)	16 (37.2)	3 (7)	2 (4.7)	7 (16.3)	43 (100)
Workers are knowledgeable in health and safety issues on site.	18 (41.9)	15 (34.9)	3 (7)	4 (9.3)	3 (7)	43 (100)
Workers are not afraid to be victimised for speaking against decisions that may affect their safety on site.	17 (39.5)	25 (58.1)	1 (2.3)	0	0	43 (100)
Workers express satisfaction towards Health and Safety decisions on site.	19 (44.2)	13 (30.2)	3 (7)	4 (9.3)	4 (9.3)	43 (100)

1=STRONGLY AGREE, 2=AGREE, 3=NOT SURE, 4=DISAGREE, 5=STRONGLY DISAGREE

n=43, Source: Field survey, Rockson, (2018)

Table 4.5 shows that 31 respondents representing 72.1% strongly agreed that workers are always consulted before every decision is taken, 6 respondents representing 14% disagreed, 4 respondents representing 9.3% agreed, while 2 respondents representing 4.7% were not sure. Moreover, 21 respondents representing 48.8% agreed

that suggestions and opinions of workers are inculcated in the overall health and safety management systems in the company, 16 respondents representing 37.2% strongly agreed, 3 respondents representing 7% were not sure, 2 respondents representing 4.7% disagreed, while 1 respondent representing 2.3% strongly disagreed.

Furthermore, 15 respondents representing 34.9% agreed that workers are allowed to make suggestions that seek to improve upon their own safety on site, 11 respondents representing 25.6% strongly agreed, 8 respondents representing 18.6% strongly disagreed, 6 respondents representing 14% disagreed, while 3 respondents representing 7% were neutral. Moreover, 16 respondents representing 37.2% agreed that workers are motivated enough to report hazardous /dangerous occurrences on site, 15 respondents representing 34.9% strongly agreed, 7 respondents representing 16.3% strongly disagreed, 3 respondents representing 7% were not sure, while 2 respondents representing 4.7% disagreed.

Also, 18 respondents representing 41.9% strongly agreed that workers are knowledgeable in health and safety issues on site, 15 respondents representing 34.9% agreed, 4 respondents representing 9.3% disagreed, while 3 respondents representing 7% strongly disagreed and were neutral respectively. Furthermore, 25 respondents representing 58.1% agreed that workers are not afraid to be victimised for speaking against decisions that may affect their safety on site, 17 respondents representing 39.5% strongly agreed, while 1 respondents representing 2.3% were not sure.

To add more, 19 respondents representing 44.2% strongly agreed that workers expressed satisfaction towards Health and Safety decisions on site, 13 respondents representing

30.2% agreed, 4 respondents representing 9.3% disagreed, and strongly disagreed, while 3 respondents representing 7% were not sure.

A key issue is the capacity of work to enhance employee well-being. An important aspect of this is the implications for psychological well-being (that is, its capacity to enhance positive affective psychological states). But these also may find physiological expression such as anxiety in muscular tension and rapid heart rate, depression in sleep disturbance, fatigue and loss of appetite. It has been shown that enduring negative well-being is reflected in higher sickness absence and can be a significant cause of physical ill-health.

However, some have argued that involvement practices undercut employee well-being through their implications for the intensification of work (Barker, 1993). An issue that crosscuts all these themes is whether employee involvement has similar consequences for men and women. High levels of female labour market participation are relatively recent in many countries and there has been considerable debate about whether women's orientations to work, in particular with respect to the intrinsic aspects of work, are similar or different to those of men. One influential line of argument has suggested that employment is less central to women's life values and identity (Hakim, 1991, 1996). If this is the case, it could be that employee involvement matters less to women and that its consequences for both motivation and well-being are correspondingly less great. However, good research evidence on work orientations, especially of a comparative type, is scarce.

Table 4.6: Managements' knowledge and commitments to involve workers in decision making on health and safety

STATEMENTS	1 n(%)	2 n(%)	3 n(%)	4 n(%)	5 n(%)	Total n(%)
Workers are involved in the development and review of health and safety policies and procedures.	13 (30.2)	12 (27.9)	4 (9.3)	8 (18.6)	6 (14)	43 (100)
Supervisors show greater concern about Health and Safety on site.	15 (34.9)	19 (44.2)	4 (9.3)	5 (11.6)	0	43 (100)
Managers/supervisors are well informed about issues affecting their workers.	15 (34.9)	24 (55.8)	4 (9.3)	0	0	43 (100)
Management is committed to ensuring safe working environment.	12 (27.9)	21 (48.8)	4 (9.3)	5 (11.6)	1 (2.3)	43 (100)
Management is on top of problem diagnosis as far as health and safety is concerned.	14 (32.6)	20 (46.5)	3 (7)	2 (4.7)	4 (9.3)	43 (100)
Management has developed clear involvement programmes about roles and responsibilities.	10 (23.3)	26 (60.5)	3 (7)	2 (4.7)	2 (4.7)	43 (100)
Workers are given feedback, the effects and results involvement programmes.	13 (30.2)	19 (44.2)	4 (9.3)	2 (4.7)	5 (11.6)	43 (100)
There are sustainable initiatives to ensure high worker involvement.	15 (34.9)	21 (48.8)	1 (2.3)	3 (7)	3 (7)	43 (100)
Management is knowledgeable in the various Laws/Regulations/Acts in the country that seek to protect workers.	12 (27.9)	27 (62.8)	4 (9.3)	0	0	43 (100)

n=43, Source: Field survey, Rockson, (2018)

1=STRONGLY AGREE, 2=AGREE, 3=NOT SURE, 4=DISAGREE, 5=STRONGLY DISAGREE

Moreover, 13 respondents representing 30.2% strongly agreed that workers are involved in the development and review of health and safety policies and procedures, 12 respondents representing 27.9% agreed, 8 respondents representing 18.6% disagreed, 6 respondents representing 14% strongly disagreed, while 4 respondents representing 9.3% were not sure. The study results revealed that 19 respondents representing 44.2% agreed that supervisors show greater concern about Health and Safety on site, 15 respondents representing 34.9% strongly agreed, 5 respondents representing 11.6% disagreed, while 4 respondents representing 9.3% were not sure.

To add more, 24 respondents representing 55.8% agreed that managers/supervisors are well informed about issues affecting their workers, 15 respondents representing 34.9% strongly agreed, while 4 respondents representing 9.3% were not sure. Moreover, 21 respondents representing 48.8% agreed that management is committed to ensuring safe working environment, 12 respondents representing 27.9% strongly agreed, 5 respondents representing 11.6% disagreed, 4 respondents representing 9.3% were not sure, while 1 respondents representing 2.3% strongly disagreed.

Also, 20 respondents representing 46.5% agreed that management is on top of problem diagnosis as far as health and safety is concerned, 14 respondents representing 32.6% strongly agreed, 4 respondents representing 9.3% strongly disagreed, 3 respondents representing 7% were neutral, while 2 respondents representing 4.7% disagreed. To add more, 26 respondents representing 60.5% indicated that management has developed clear involvement programmes about roles and responsibilities, 10 respondents representing 23.3% strongly agreed, 3 respondents representing 7% were not sure, while 2 respondents representing 4.7% strongly disagreed and disagreed respectively.

The study results shows that 19 respondents representing 44.2% agreed that workers are given feedback, the effects and results involvement programmes, 13 respondents representing 30.2% strongly agreed, 4 respondents representing 9.3% were not sure, 5 respondents representing 11.6% strongly disagreed, while 2 respondents representing 4.7% disagreed. Moreover, 21 respondents representing 48.8% agreed that there are sustainable initiatives to ensure high worker involvement, 15 respondents representing 34.9% strongly agreed, 3 respondents representing 7% strongly disagreed and disagreed respectively, while 1 respondent representing 2.3% were not sure. To add more, 27 respondents representing 62.8% agreed that management is knowledgeable in the various Laws/Regulations/Acts in the country that seek to protect workers, 12 respondents representing 27.9% strongly agreed, while 4 respondents representing 9.3% were not sure.

Employee involvement refers to the opportunities for employees to take part in decisions that affect their work. It is concerned with the capacity of employees to influence decisions as individuals rather than through representatives. It is often used synonymously with the term 'direct participation'. Opportunities can be provided which may or may not be taken up; employee involvement therefore includes not only effective influence but latent capacities for action. It is the common concept that underlies diverse notions of 'new forms of work organisation' – whether 'high involvement', 'high performance' or 'learning organisations' – and it provides a core theoretical dynamic of their arguments.

In principle, it is possible to distinguish three levels of employee involvement:

- ✓ higher level decisions such as investment, work- force structure and product development;
- ✓ involvement in decisions about work organisation;
- ✓ involvement in decisions about the immediate job task.

Although there is little consensus in the literature about nomenclature, this report refers to these three levels as 'strategic participation', 'organisational participation' and 'task discretion', respectively.

In practice, the fifth European Working Conditions Survey has a well-established set of indicators of task discretion, an enhanced set of questions on organisational participation and no questions for measuring strategic participation. The forthcoming wave of the European Company Survey (ECS) should provide a richer source of evidence with respect to strategic participation. This report therefore focuses on the second and third levels of involvement.

Table 4.7: Assessing current level of workers involvement in safety decision making

Question(s)	Not Sure n(%)	Seldom n(%)	Sometimes n(%)	Yes, often	Total n(%)
Have workers been involved in reviewing existing safety equipment?	10 (23.3)	15 (34.9)	14 (32.6)	4 (9.3)	43 (100)
Have workers been involved in decisions to purchase new safety equipment?	12 (27.9)	0	29 (67.4)	2 (4.7)	43 (100)
Have workers been involved in decisions to redesign the layout of the work environment when facilities are being rebuilt or refurbished?	18 (41.9)	11 (25.6)	11 (25.6)	3 (7)	43 (100)
Have workers been involved in reviewing and/or developing safe working procedures?	11 (25.6)	13 (30.2)	16 (37.2)	3 (7)	43 (100)
Have workers ever been involved in improving the safe design of tasks or ways of working?	12 (27.9)	11 (25.6)	14 (32.6)	6 (14)	43 (100)
Have workers been involved in analysing or reviewing process safety arrangements?	11 (25.6)	16 (37.2)	8 (18.6)	8 (18.6)	43 (100)

n=43, Source: Field survey, Rockson, (2018)

The study results indicate that 15 respondents representing 34.9% indicated that workers are seldom involved in reviewing existing safety equipment, 10 respondents representing 23.3% were not sure, 14 respondents representing 32.6% said that workers are sometimes involved in reviewing existing safety equipment, while 4 respondents

representing 9.3% indicated that workers are often involved in reviewing existing safety equipment.

Furthermore, 29 respondents representing 67.4% revealed that workers are sometimes involved in decisions to purchase new safety equipment, 12 respondents representing 27.9% were not sure while 2 respondents representing 4.7% said that workers are often involved in decisions to purchase new safety equipment. The study findings show that 18 respondents representing 41.9% were not sure that workers are involved in decisions to redesign the layout of the work environment when facilities are being rebuilt or refurbished, 11 respondents representing 25.6% revealed that workers are seldom involved in decisions to redesign the layout of the work environment when facilities are being rebuilt or refurbished, while 3 respondents representing 7% said that workers are often involved in decisions to redesign the layout of the work environment when facilities are being rebuilt or refurbished.

Furthermore, 16 respondents representing 37.2% said that workers are sometimes involved in reviewing and/or developing safe working procedures, 13 respondents representing 30.2% revealed that workers are seldom involved in reviewing and/or developing safe working procedures, 11 respondents representing 25.6% were not sure. Moreover, 14 respondents representing 32.6% said that workers are sometimes involved in improving the safe design of tasks or ways of working, 12 respondents representing 27.9% were not sure, 11 respondents representing 25.6% indicated that workers are seldom involved in improving the safe design of tasks or ways of working, while 6 respondents representing 14% said that workers are often involved in improving the safe design of tasks or ways of working. To add more, 16 respondents representing 37.2%

said that workers are seldom involved in analysing or reviewing process safety arrangements, 11 respondents representing 25.6% were not sure, while 8 respondents representing 18.6% revealed that workers been involved in analysing or reviewing process safety arrangements.

These findings agrees with Durand and Hatzfeld, (2003), the extensive research conducted over several decades has pointed to the general deterioration of working conditions that accompanied the extreme simplification and division of tasks characteristic of Tayloristic systems of production. There are grounds for expecting that higher involvement work systems are associated with higher standards of health and safety at work. The greater the employees' control over decisions, the more likely it is that work intensification will be kept in check. Indeed this was one of the original motivators of the emphasis on removing their control in 'scientific management'.

Table 4.8: Factors that can influence the success and effectiveness of workers involvement

Questions	Don't Know n(%)	Very Poor n(%)	Adequate n(%)	Very Good n(%)	Total n(%)
How do you rate the level of trust between the management and workers?	10 (23.3)	15 (34.9)	16 (37.2)	2 (4.7)	43 (100)
Do you think workers are suspicious about the motivations for workforce involvement?	13 (30.2)	8 (18.6)	18 (41.9)	4 (9.3)	43 (100)
Do you think workers want to be more involved in health and safety?	0	0	10 (23)	33 (77)	43 (100)
Do you think things will change as a result of more workforce involvement?	0	0	17 (40)	26 (60)	43 (100)

n=43, Source: Field survey, Rockson, (2018)

The study results indicate that 16 respondents representing 37.2% there is adequate trust between the management and workers, 15 respondents representing 34.9% said that there the level of trust between the management and workers is very poor, 10 respondents representing 23.3% said that they do not know, while 2 respondents representing 4.7% indicated that the level of trust between the management and workers is very good. Moreover, 18 respondents representing 41.9% there is adequate motivations for workforce involvement, 13 respondents representing 30.2% said that they do not know, 8 respondents representing 18.6% said that motivation for workers is very

poor, while 4 respondents representing 9.3% said that motivation for workers is very good. Furthermore, 33 respondents representing 77% agreed that workers involvement in decision making can improve health and safety in the construction firm, Also, 26 respondents representing 60% agreed that things will change as a result of more workforce involvement.

These results are in agreement with Zhou, (2009), skill has also been seen consistently as a major factor affecting employee influence over decisions. Occupational class theory postulates a very different employment relationship between higher skilled and lower skilled employees. For the former, employers are concerned to mobilise discretionary effort and ensure retention, while the priority for the latter is to maximise flexibility to hire and fire. The logic of this argument implies that employee involvement opportunities will be primarily directed at those in more skilled occupational positions.

The potential importance of flexibility policies derives from literature about the way employers may have been adapting to greater product market uncertainty. Some theories of innovation suggest that product market uncertainty provides the conditions for higher involvement through 'organic' as distinct from 'mechanistic' organisational structures (Burns and Stalker, 1961). The re-emergence of interest in employee involvement in the managerial literature was premised on the increasing importance of product and service quality in an increasingly competitive environment (Walton, 1985; Wyer and Mason, 1999; Wall et al, 2002). However, other theories of the implications of increased competitive pressure and uncertainty underlined the necessity of enhanced numerical flexibility, which was unlikely to be conducive to employee involvement (Atkinson, 1985; Capelli et al, 1997).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

5.1 Summary

The main aim of this research was to examine construction site workers' involvement in health and safety decision making in some selected Districts (Asutifi North and South) of D1K1 and D2K2 contractors. An exploratory research approach was used for the study with descriptive methods to discuss the results. The population of the study was made up of all identifiable construction companies within the category of D1K1 and D2K2 in both Asutifi North and South Districts of the Brong Ahafo Region. Information was sought from contractors, site supervisors and site workers. Purposive and non-probability sampling was used to select the respondents. Questionnaire was the main instrument used to gather primary data. Data collected for the study was analysed with the Version 16 of the Statistical Package for Social sciences (SPSS).

5.2 Major findings of the Study

This section presents the findings of the study in relation to the specific objectives stated in chapter one Section 1.3. The findings in relation to the objectives are presented in two subsections that follow.

5.2.1 Involvement of Construction Workers in Health and Safety Management

As one of the main objectives of this research work, the researcher sort to find out how directly or indirectly construction site workers got involved in health and safety management in their respective companies, and it came out clearly according to table 4.5 that, a lot of workers always got involved before decisions related to health and safety managements were taken. A good number of them also agreed that their suggestions and opinions were inculcated in the overall health and safety management systems in the company; and that they were allowed to make suggestions that sought to improve upon their own safety on site. It was also revealed in the research that, workers were knowledgeable in health and safety issues on site. And due to this, they were motivated enough to report hazardous/dangerous occurrences on site, and that they were not afraid to be victimised for speaking against decisions that may affect their safety on site.

Furthermore, in assessing managements' commitments to involving workers in health and safety decision making, there was a strong agreement that indeed workers got involved in the development and review of health and safety policies and procedures. It also came out that supervisors as well as management show greater concern about safety because they were well informed, hence their commitment to ensure safe working environment. It was also revealed through the research that, there were clear involvement programmes by managements that would enhance developing sustainable initiatives to ensure higher worker involvement in health and safety management. It was also found out from the study that there was a high level of involvement amongst workers.

5.2.2 Assessment of Level of Awareness of Site Workers on Health and Safety

In assessing level of workers awareness regarding health and safety on site, it was found out from the research that most of these workers had knowledge about the subject, and because of that, they could tell some of the basic provisions in the regulations regarding health and safety in the country, i.e. the need to provide workers with the appropriate PPEs, provision of better welfare facilities, periodic organisation of workshops and trainings, etc.

The workers also exhibited their level of awareness of health and safety on site, by indicating that they were not afraid to be victimised by management when there is the need to raise issues against management about certain health and safety decisions which they the workers believed will not help them in the discharge of their duties safely. And again, most of the workers were very much concerned about their own safety and that of others, and so they were able to express their satisfaction or otherwise towards certain health and safety decisions by management on site.

5.3 Conclusion

The study results concluded that there was a high level involvement of workers in occupational health and safety issues consistent with an equally high level of awareness of health and safety matters of construction sites. In principle, it is possible to distinguish three levels of employee involvement in decision making in the research; i.e.

- ✓ higher level decisions such as investment, work- force structure and product development;
- ✓ involvement in decisions about work organisation;

- ✓ involvement in decisions about the immediate job task.

Despite the level of involvement earlier alluded to, the study once again showed that there were certainly some decisions that management took without necessarily involving the workers. So the workforce in the various companies believed that when they are involved more in decisions, things will change for the good of the companies.

5.4 Recommendations

According to the key findings and the concluding remarks highlighted above, the study recommends the following:

- The management in construction firms should make conscious efforts to involve workers in all health and safety decisions of which would go a long way to ensure that workers own the health and safety management systems.
- Deliberate attempt be made through proper channels of communications, planned workshops, refresher courses, daily briefing of health and safety issues and current trends in fighting construction sites accidents to push down the issues of health and safety on site.
- Unionism should be encouraged even within small construction firms to assist in getting through certain policies that may inure to the benefit of workers in the health and safety practices.
- Award schemes should be instituted within construction firms to reward workers who exhibit greater involvement and commitment towards health and safety at the work place and even beyond.

5.5 Suggestions for Further Research

Based on the limitations of the study, the researcher suggested that a similar study should be conducted, focusing on some selected multinational construction companies in the country to investigate the impact of worker involvement in decision making on their productions.

REFERENCES

Accident Theories by Work Zone Safety and Efficiency Transportation Center, Cleveland State University, (2010). Thousand Oaks: Publisher.

Annan, J. (2010). *Occupational and Industrial Safety and Health in Ghana.* (www.ghanaweb; Published Article)

ASCE. (2006). Code of ethics. ⟨http://www.asce.org/inside/codeofethics.cfm⟩ (Sep. 8, 2006).

Business Management Ideas (2001). *Decision making: process and theories*. Retrieved from www.businessmanagementideas.com.

Cole, R. J. (2000). Building environmental assessment methods: Assessing construction practices. *Constr. Manage. Econ., 18*(8), 949–957.

Constanza, R., Daly, H. E., & Bartholomew, J. A. (1991). *Goals, agenda and policy recommendations for ecological economics.* New York: Columbia University Press.

Construction and Engineering Management Report 2013

Dantes Project Information Glossary. (2006). *Sustainability/sustainable development*. ⟨http://www.dantes.info/Projectinformation/Glossary? Glossary.html⟩ (Sep. 6, 2006).

Dorman, P. (2000). *The economics of safety, health, and well-being at work: An overview.* Proc., Infocus Program on Safe Work, International Labor Organization, Geneva, 1–42.

Eco-logical economics: *The science and management of sustainability*. New York: Columbia University Press.

ECOTEC Ltd (2005) (for HSE). Obstacles preventing worker involvement in Health and Safety.

Eurofound (2013). *Work organsation and employee involvement in Europe.* Luxemberg: Publications office of the E.U.

Ennals, R. (2002). Partnerships for sustainable healthy workplaces: Warner lecture, British, British Occupational Hygiene Society, and Sheffield. *Ann. Occup. Hyg., 46*(4), 423–428.

Ferguson, K. (2015). *A study of safety leadership and safety governance for board members and senior executives*. PhD thesis.

Frobel, H., & Marchington, T. (2005). *Teamworking structures and workers perceptions.* The International Journal of Human Resource Management.

Gallie, D. (2004, 2007). *Changing Patterns of Task Discretion.*

Gambatese, J. A. (1998). *Liability in designing for construction worker safety.*

Gambatese, J. A., & Hinze, J. (1999). Addressing construction worker safety in the design phase: Design for construction worker safety. *Automat. Constr., 8*(6), 643-649.

Gambetese, J., Toole, M., & Giles, B., (2008). *The Future of Design for Construction Safety," Proc., 18th Annual Construction Safety Conference*, Rosemont, Illinois, USA, February 12.

Gokhan Arslan and Serkan Kivrak (2003). *Safety and health practices in construction: An investigation among construction workers Civil Engineering Department*, Anadolu University, 26555 Eskisehir, Turkey

Hackman and Oldham (2005). *Work Involvement and Job Performance.*

Harms-Ringdahl, L. (1993). Safety *analysis: Principles and practice in occupational safety.* London: Elsevier.

Hawken, P. (1993). *The ecology of commerce: A declaration of sustainability.* New York: Harper.

Health and Safety Executive (2005). *Obstacles preventing worker involvement in health and safety*.

Health and Safety Executive (2007). *Using soft people skills to improve worker involvement in health and safety; Involvement and Participation Association*.

Health and Safety Executive (2013). Consulting employees on health and safety: A brief guide to the Law.

Health and Safety Executive (2013). *Consulting employees on health and safety: A brief guide to the law Leaflet INDG232* (rev2) www.hse.gov.uk/pubns/indg232.pdf.

Health and Safety Executive (2014). *Consulting Workers on Health and safety.*

Health and Safety Executive (2014). Consulting workers on health and safety. Safety Representatives and Safety Committees Regulations 1977 (as amended) and Health and Safety (Consultation with Employees) Regulations 1996 (as amended). Approved Codes of Practice and guidance L146 (Second edition with amendments) www.hse.gov.uk/pubns//books/l146.htm

Health and Safety Executive (2015). Involving your workforce in health and safety: Guidance for all workplaces.

Health and Safety Executive (2017). *Health and Safety Statistics for the Construction.* Sector; Great Britain.

Hill, C.W., & Jones, G. R. (2001). *Strategic management*. London: Houghton Mifflin.

Hill, R. C., & Bowen, P. A. (1997). Sustainable construction principles and a framework for attainment. *Constr. Manage. Econ., 15*(3), 223–239.

Hinze, J. (2002a). Designing for deconstruction safety. Designing for deconstruction and material reuse, A. Chini and F. Schultmann, (Eds.), *International council for building*, Rotterdam: The Netherlands.

Hinze, J. (2002b). *Safety plus: Making zero accidents a reality, Construction Industry* Institute, Austin, TX.

International Labour Organisation (2010). The role of worker Representation and consultation in managing Health and Safety in the construction industry.

Huang, X., & Hinze, J. (2006). Owner's role in construction safety. *J. Constr. Eng. Manage., 138(*2), 165–173.

Koehn, E., Kothari, R. K., & Pan, C. S. 1995. Safety management in developing countries: Professional and bureaucratic problems. *Journal of Construction Engineering and Management, 121*(3), 261-265.

Kothari C. K (2015). *Involving your workforce in health and safety: Guidance for all workers* (First edition with amendments) New Age International (P) Ltd., Publishers.

Lingard, H., & Rowlinson, S. (2005). *Occupational health and safety in construction project management*. London, UK: Spon Press.

Lutzkendorf, T., and Lorenz, D. P. (2006). Using an integrated performance approach in building assessment tools. *Build. Res. Inf., 34*(4), 334–356.

Meadows, D. H., Meadows, D. L., & Randers, J. (1992). *Beyond the limits: Confronting global collapse*—Envisioning a sustainable future, Chelsea Green, Post Mills, VT.

Mearns, C. (2007). Health and safety culture within nuclear energy sector-the hidden factors. *Journal of Safety Research*, *5*(3), 345-355.

Mogensen, V. (2006). Introduction. Worker safety under siege: V. Mogensen, M. E. (Ed.), *Labor, capital, and the politics of workplace safety in a deregulated* world. Sharp: New York. http://accuracyproject.org/humidex.jpg

Mwombeki, F. K. (2005). *Occupational Health & Safety Challenges in Construction Sites in Tanzania*," Proc., 4th Triennial International Conference: Rethinking and Revitalizing Construction Safety, Health, Environment and Quality, Port Elizabeth – South Africa, May 17-20.

Occupational Health and Safety Regulations (2017).

Oshonline.com (2007). Beyond Workplace Safety: Occupational Health and Safety Parliamentary Act of the Republic of Ghana (2003 Part XV of labour Act 651) occupational health and safety conditions under section 118.

Parliamentary Act of the Republic of Ghana (2003 passed the labour Act, 2003(651). Safety Considerations in the Work Environment in Ghana.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.) Newbury Park, CA: Sage.

Symposium Series No. 54 (2008). Guidance on effective Workforce involvement in health and safety.

Taylor, J. (2005). Information and Consultation of Employees Regulations of 2005.

The Labour Department of Ghana Annual report (2000)

Tom, L. (2012). 11 Tips on Workforce Involvement in Safety and Health.

Work Organisation and Employee Involvement in Europe (2013). A report based on the Fifth European Working Conditions Survey published.

APPENDIX

UNIVERSITY OF EDUCATION, WINNEBA
COLLEGE OF TECHNOLOGY EDUCATION, KUMASI
DEPARTMENT OF CONSTRUCTION/WOOD TECHNOLOGY

INTERVIEW GUIDE FOR MANAGEMENT MEMBERS, SUPERVISORS AND FIELD WORKERS

The researcher is pursuing a Master's programme of Construction Technology Education in the University of Education, Winneba, Kumasi Campus. This interview guide is to solicit information for finding out how directly or indirectly workers get involved in health and safety decision making and Workers knowledge in the Health and Safety Regulations and practices in the various construction companies in the D1K1 and D2K2 categories in the Asutifi North and South Districts of the Brong Ahafo Region of Ghana. Please, note that this work is solely for academic purposes and all information provided will be treated in the strictest of confidence. Your responses to the following questions will help in making this study a success.

A. Background Information

1. Gender: Male [ ] Female [ ]

2. Age group: 18 – 20 years [ ] 21 – 25 years [ ] 26 – 30years [ ] 31 35years [ ] 36 and above [ ]

3. Level of Education: JHS [ ] SHS [ ] Diploma [ ] Graduate [ ] Others (please specify) ……

4. How long have you worked in this company? 1 – 4 years [ ] 5 – 9years [ ] 10 and above [ ]

5. Indicate the Category of the Company.

D1 [ ]

K1 [ ]

D2 [ ]

K2 [ ]

Position Held..... Contractor [ ] Supervisor [ ] Field Worker [ ]

KNOWLEDGE IN HEALTH AND SAFETY PRACTICES/REGULATIONS

B. General knowledge about Health and Safety Practices at the Construction Sites

6. Do you have a safety officer in the company? [ ]

7. Is he/she a health and safety professional?

8. Do you know of any Acts/Law/Regulation in Ghana that protects Health and Safety of workers. [ ]

Please indicate …….

9. Indicate what aspect of Health and Safety practices you consider in your company?

NO.	HEALTH AND SAFETY PRACTICES	TICK[√]
a.	Provision of Personal Protective Equipment	
b.	Welfare Facilities (staff bus, wash and changing rooms, etc)	
c.	Provision of tools and equipment	
d.	Medical Examination (Before/During/Exit)	

e.	Training and Workshops	
f.	Emergency Procedures	
g.	Proper channels of reporting accidents/incidence/near-misses	
h.	Proper investigative procedures	
i.	Others, Please specify:	

INFORMATION FLOW

10. Tick as applicable in your case, how information concerning Health and Safety made known to workers and workers to management in the company.

	Channels of Communication	Tick [√]
a)	Staff /Committee Meetings	
b)	Posters/Newsletters/Company Magazine	
c)	Toolbox talks and Team Briefing	
d)	Informal Discussions	
e)	Forums/Training and Workshops	

DIRECT AND INDIRECT INVOLVEMENT OF WORKERS

D. Please, thick (√) the appropriate box to indicate the extent to which you agree or disagree with the following statements as direct or indirect involvement of workers in health and safety decision making process, by using the following 5-point Likert scale: STRONGLY AGREE, AGREE, NOT SURE, DISAGREE, STRONGLY DISAGREE.

NO	STATEMENTS	S.A	A	N.S	D	S.D
11.	Workers are always consulted before every decision is taken.					
12.	Suggestions and opinions of workers are inculcated in the overall health and safety management systems in the company.					
13.	Workers are allowed to make suggestions that seek to improve upon their own safety on site.					
14.	Workers are motivated enough to report hazardous /dangerous occurrences on site.					
15.	Workers are knowledgeable in health and safety issues on site.					
16.	Workers are not afraid to be victimised for speaking against decisions that may affect their safety on site.					
17.	Workers express satisfaction towards Health and Safety decisions on site.					

MANAGEMENTS' KNOWLEDGE AND COMMITMENTS TO INVOLVE WORKERS IN DECISION MAKING ON HEALTH AND SAFETY

E. Please, thick (√) the appropriate box to indicate the extent to which you agree or disagree with the following statements about managements' commitment to involve the workers, and their own knowledge concerning Health and Safety on the Construction Site by using the following 5-point Likert scale: STRONGLY AGREE, AGREE, NOT SURE, DISAGREE, STRONGLY DISAGREE.

NO	STATEMENTS	S.A	A	N.S	D	S.D
18.	Workers are involved in the development and review of health and safety policies and procedures.					
19.	Supervisors show greater concern about Health and Safety on site.					
20.	Managers/supervisors are well informed about issues affecting their workers.					
21.	Management is committed to ensuring safe working environment.					
22.	Management is on top of problem diagnosis as far as health and safety is concerned.					
23.	Management has developed clear involvement programmes about roles and responsibilities.					
24.	Workers are given feedback, the effects and results involvement programmes.					

25.	There are sustainable initiatives to ensure high worker involvement.					
26.	Management is knowledgeable in the various Laws/Regulations/Acts in the country that seek to protect workers.					

ASSESSING CURRENT LEVEL OF WORKERS INVOLVEMENT

F. Please indicate how much workers are involved in the different aspects of Health &Safety Management by ticking any of the answers where N.S – 1, S – 2, ST – 3, Y – 4.

No.	Different Aspects of Health and Safety	Not Sure	Seldom	Sometimes	Yes, often
27.	Have workers been involved in reviewing existing safety equipment?				
28.	Have workers been involved in decisions to purchase new safety equipment?				
29.	Have workers been involved in decisions to redesign the layout of the work environment when facilities are being rebuilt or refurbished?				
30.	Have workers been involved in reviewing and/or developing safe working procedures?				
31.	Have workers ever been involved in improving the safe design of tasks or ways of working?				

32.	Have workers been involved in analysing or reviewing process safety arrangements?				

FACTORS THAT CAN INFLUENCE THE SUCCESS AND EFFECTIVENESS OF WORKERS INVOLVEMENT

G. Assessing the factors that can influence the success and effectiveness of workforce involvement by ticking one of the answers appropriately where: From 'Don't Know through the scale has 1-4 as their assigned values.

NO	Questions	Don't Know	Very Poor	Adequate	Very Good
32.	How do you rate the level of trust between the management and workers?				
		Don't know	Suspicious	Not sure	Not suspicious
33.	Do you think workers are suspicious about the motivations for workforce involvement?				
		Don't know	No	Not Sure	Yes

34.	Do you think workers want to be more involved in health and safety?				
35.	Do you think things will change as a result of more workforce involvement?				

Thank You