IMPLEMENTATION OF MINIMUM OCCUPATIONAL SAFETY AND HEALTH COMPLIANCE REQUIREMENTS AMONG WORKPLACES INSPECTED BETWEEN 2018 AND 2020 IN KINONDONI MUNICIPAL

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IMPLEMENTATION OF MINIMUM OCCUPATIONAL SAFETY AND HEALTH COMPLIANCE REQUIREMENTS IN WORKPLACES INSPECTED BETWEEN 2018 AND 2020 IN KINONDONI MUNICIPAL

BY

AMINA SHILLA

A Dissertation submitted in Partial Fulfilment of the requirements for the Degree in Project Management, Monitoring and Evaluation in Health of Muhimbili University of Health and Allied Sciences October 2021

CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance by Muhimbili University of Health and Allied Sciences a dissertation titled " **Implementation of minimum occupational safety and health compliance requirements in workplaces inspected between 2018 and 2020 in Kinondoni Municipal**", in (partial) fulfilment of the requirements for the degree of Masters of Science in Project Management, Monitoring and Evaluation in Health of Muhimbili University of Health and Allied Sciences.

> Dr. Sakwari Gloria, (Supervisor)

> > Date

DECLARATION AND COPYRIGHT

I, **Amina Shilla**, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award

I also declare that there is no conflict of interest in this study despite working with OSHA as a medical inspector. This study was conducted for purposes of gaining evaluation skills as part of fulfilment of the course pursued. This topic was chosen since evaluation of the OSH compliance process has never been done before. OSHA may choose to work on the findings from this study for reasons none other than improving her performance particularly workplace compliance with OSH regulation.

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DEDICATION

I dedicate this work to my nuclear and extended family as well as my father the Late Dr Shilla Nangu for their unconditional love and care throughout my life. Their trust in me gave me the strength and courage to pursue this achievement and become the person I am today. I forever cherish you being part of my life and success.

ABSTRACT

Introduction: The Government has initiatives to promote decent and safe work through establishment of Occupational Safety and Health (OSH) regulations administered through enforcement of the OSH Act 5 of 2003. The regulating authority, Occupational Health and Safety Authority (OSHA), has registered and inspected workplaces in the country however, there have been high rates of non-compliance with these regulations/standards from the time these regulations came to existence. Data from OSHA revealed that up to the operational year 2019/20 only 1242 (0.7%) out 173,116 inspected workplaces in the country were awarded OSHA compliance certificates after implementation of workplace specific minimum OSH compliance requirements. This study aimed at determining factors facilitating, barriers hindering implementation of minimum OSH compliance requirements among compliant and non-compliant inspected workplaces and enforcement actions for non-compliance.

Methodology: The study employed descriptive cross-sectional design with qualitative approach in exploring the determinants for implementation of OSH compliance criteria among inspected workplaces in Kinondoni Municipal - Dar es Salaam. Purposive sampling was applied to obtain representative workplaces and respective informants from compliant and non-compliant inspected workplaces. Selection was done through document review from the enforcing authority. Two IDI guides and observation checklist were utilized as data collection tools. Saturation was reached when 27 safety focal persons (14 compliant and 13 non-compliant workplaces) were interviewed. Deductive thematic analysis for qualitative data was applied through four themes; workplace internal factors, external forces, workers' safety practices and regulatory/reinforcement actions.

Results: The study found out that workplace internal factors, external forces, workers' safety practices and regulatory/reinforcement actions influence implementation of the minimum OSH compliance requirements to both compliant and non-compliant workplaces.

Conclusion: To foster workplace OSH compliance; enforcing authority needs to strategize on raising thorough OSH awareness to employers and employees about

OSH compliance requirements and process. Workplace owners need to recognise and emphasize on application of the factors that facilitate workplace OSH compliance.

Recommendation: Both regulatory/enforcing authority and workplaces have to develop effective interacting systems that monitor implementation of OSH regulations considering the determinants and their influence so as to foster legal compliance to OSH regulations.

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ABBREVIATIONS

AFRO	African Initiative
CFIR	Consolidated Framework for Implementation Research
СМА	Commission for Mediation and Arbitration
IDI	In-depth Interview
ILO	International labour Organization
NIOSH	National Institute for Occupational Safety and Health
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Authority
PPE	Personal Protective Equipment
PSRP	Public Service Reform Program
SHE	Safety, Health and Environment
WHO	World Health Organization
WHO/ILO	World Health Organization/ International Labour Organization

DEFINITION OF TERMS

- Compliance Adhering to a rule, such as a policy, standard, specification, or law. Regulatory compliance defines the goals companies want to achieve to ensure that they understand and take the necessary steps to comply with policies, relevant laws, and regulations. (Parker and Nielsen, 2011)
- Compliance licence Occupational Safety and Health licence issued to the occupier of a factory or workplace every twelve months, upon fulfilling minimum Occupational Safety and Health requirements (OSHA, 2003)
- 3. **Non-compliance** Failure to comply with any imposed laws or standards, sometimes due to express violations of these laws or standards. In other cases, non-compliance is due to failure to meet a specified threshold or to update practices to meet current requirements. (Parker and Nielsen, 2011)
- 4. Occupational Safety and Health A discipline dealing with the prevention of work-related injuries and diseases as well as the protection and promotion of the health of workers. It aims at the improvement of working conditions and environment. (Wedege, 2001)
- 5. Occupational Safety and Health Standards/Regulations Regulatory requirements established and published by the agency to serve as criteria for measuring whether employers are in compliance with the OSH Act laws. In Tanzania OSH standards are prepared and enforced by the OSHA Act No 5 of 2003.
- 6. **Workplace** Any premises or part of a premise made available to any person as a place of work. (International Labour Organization., 2016)
- Registered workplace Workplace or factory that is in the register of factories and workplaces in which the Chief Inspector shall enter such particulars in relation to every factory and workplace as he may consider necessary for the purpose of OSHA Act 5 of 2003

8. Inspected workplace – A registered workplace which is critically examined by an Occupational Safety and Health Officer/inspector in the service of the Government for the identification and mitigation of workplace hazards and to ensure that all standards are met and the workplace is in fact safe and free from any risks

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Occupational safety and health services are crucial for sustainable development of a nation, since they reduce individuals, enterprises and the nation economic burden resulted from occupational accidents, diseases and fatalities (Cabrera-Ormaza, 2018). Improving health and safety of workers will notably increase productivity at the workplaces to foster more investments, increase job creation, higher morale, and job satisfaction hence industrial harmony. Endorsement of Occupational Safety and Health includes stipulation and maintenance at the highest degree of safe and healthy working conditions and environment (Ministry of Health, 2010). This is required for the facilitation of optimal social, mental and physical wellbeing of workers at workplaces as well as safety of property.

Occupational safety and health (OSH) is a public health field dealing with the science of anticipation, recognition, evaluation and control of hazards arising in or from the work environment that could impair the health and well-being of workers, taking into account possible impact on the surrounding communities and the general environment (Neema, 2012). OSH ensures social protection to workers against occupational diseases, work related accidents and other negative effects of work. Complying with OSH standards reinforces job satisfaction, improves quality of human life and foster human functioning capacity while the contrary means national economic burden through compensations, reduced productivity, unnecessary recruitment and retraining of new workers and hospital costs (International Labour Organization, 2014).

Globally it is estimated that yearly 2.78 million work-related deaths occur from which 2.4 million deaths are from occupational diseases accounting for 3.94 percent of world's annual GDP. Preventable losses from absenteeism, loss of skilled staff, provision of high insurance and payments for early retirement are some of the consequences employers face for not complying with occupational safety and health standards and regulations. The International Labour Organization (ILO) emphasizes on workers protection from sickness, disease and injuries sustained from work

environment. Through ILO conventions ratification and application; the governments, employers and workers will promote safe working environment (ILO, 2013).

The Occupational Safety and Health Authority (OSHA) was established in Tanzania on the 31st August 2001 by the Government through Public Service Reform Programme (PSRP) (Ministry of Law, 1997). OSHA was then launched as a Government Agency with the aim of improving the health and safety of workers at all workplaces through enforcement and promotion of occupational health and safety practices. This reduces accidents, occupational diseases and ultimately achieves better productivity. The enactment of the Occupational Health and Safety Act to nullify the Factories Ordinance Cap.297 of 1950 followed in 2003 so as to expand the scope of application from factories only to cover all types of workplaces (OSHA, 2003). This has necessitated the need to have a harmonized occupation health and safety programs and activities at workplaces.

Powered by the parliament of the United Republic of Tanzania, the Occupational Health and Safety Act 5 of 2003 requires all workplaces as defined in the Act to comply with the minimum OSH compliance requirements as provided in OSHA rules and regulations. As per OSHA Act 5 of 2003 and OSHA General administrative rules 2015, the minimum OSH compliance requirements include;

Factory or workplace registration

This is to ensure that a workplace or factory is in the register of factories and workplaces in which the Chief Inspector shall enter such particulars in relation to every factory and workplace as he may consider necessary for the purpose of OSHA Act 5 of 2003. A registration certificate will be granted to the one who has fulfilled the registration requirements (OSHA, 2015).

General Inspection

This is inspection done to any workplace by the authorized Safety and Health inspector in order to determine whether the employer is in compliance with the Act's health and safety standards. Verification is availability of filled general inspection report with employer's or representative's signature to acknowledge the conduction of the inspection in the workplace (OSHA, 2015).

Hygiene Inspection

This inspection is done by authorized OSHA inspector for the purpose of controlling hazardous workplace conditions such as chemical and physical hazards through recognizing, evaluating and adjusting for workplace hazards in order to keep the workers safe from the hazards. Industrial hygiene inspection will be verified through safety inspection report (OSHA, 2015).

Ergonomic Inspection

This is inspection done to workplace setting assessing how employees work in terms of risks assessment such as repetitive tasks, improper area set up and improper use of tools which lead to musculoskeletal work-related disorders. The inspection will be verified through safety inspection report (OSHA, 2015).

Medical Surveillance

This is medical examination done to all employees as pre-employment, periodic, exit and as may be ordered by the Chief Inspector to assess fitness to work and monitor for occupational disease occurrence as well as work related illnesses. Medical examination shall be conducted by occupational health physician or qualified medical practitioner authorized by the Chief Inspector (OSHA, 2015).

Electrical Inspection

Every workplace or factory must undergo this inspection which is done to provide comprehensive review and check-up of the electrical connections and wiring installation in a workplace or factory. It is done to prevent fire damage at workplace which may be fatal to employees. Its verification just like others will be done through the safety inspection report (OSHA, 2015).

Plant Inspections

This inspection is done in workplaces or factory where applicable with availability of boiler or plant within workplace or factory premises to verify asset integrity of the plant being inspected. A plant inspection report will verify inspection administration (OSHA, 2015)

Possession of workplace OSH Policy

It is a statement explaining the overall intention and direction of a workplace or factory related to its OHS performance. A policy statement indicates the degree of an employer's commitment to health and safety. It will be verified as an independent document available in both Swahili and English and should be placed in open spaces visible to workers (OSHA, 2015).

An up to date Risk assessment document

Every workplace or factory must have an up to date risk assessment document which records the identified risk factors (risk profile) available in a workplace or factory and stipulating the ways of mitigating the risks in order to minimize or eliminate chances of the risks developing to harm to the employees in the course of work. Verification will be through checking on the availability of an up to date risk assessment document (OSHA, 2015).

Presence of SHE representatives and SHE committee

In a workplace or factory with more than twenty employees, the occupier is obliged to appoint a safety representative who will attend SHE representative course offered by OSHA then be in charge of all safety related issues as stipulated by the employer and as well as conduct safety meetings with the appointed safety committee members in a designated place within factory or workplace premises. Verification will be through SHE Representatives course certificates and minutes for safety meetings held at work (OSHA, 2015).

Availability of First aid box and OSHA trained first aiders

In every workplace or factory there must be a first aid box or cupboard maintained to the standards and marked "FIRST AID" having only appliances and stocks of first aid equipment. OSHA trained first aider will be responsible for handling and attending to all conditions calling for first aid services. Verification will be the presence of a maintained first aid box and presence of a first aider with OSHA first aid course certificate (OSHA, 2015).

The Safety Action plan

This is a document that employer prepares showing his/her proactive approach towards providing safe workplace. The document tells how the employer is going to identify, eliminate physical, ergonomic, chemical and biological hazards to reduce chances of occupational diseases. It is a stand-alone document which will be verified through presence of the document (OSHA, 2015)

The Act also stipulates about offences, penalties, legal proceedings as reinforcement actions for non-compliant occupiers/ employers (OSHA, 2003).

Despite all the international and local initiatives to prevent work related illnesses and promoting safe working environment; workplace compliance with the minimum OSH compliance requirements has been the most challenging issue among workplaces in the country. The law requires all workplaces to comply with the minimum OSH compliance requirements and being awarded the legal compliance certificate issued by OSHA (OSHA, 2015). The discrepancy in OSH compliance status among inspected workplaces is outrageous. Therefore, this study intends to determine facilitators and barriers to implementation of minimum OSH compliance requirements as well as regulatory reinforcement actions administered for non-compliancy among inspected workplaces in Kinondoni Municipal Dar es Salaam. This will enable the researcher understand how these factors have contributed to the observed objectionable OSH compliance status in the country.

1.2 Statement of the problem

Statistical Business Register 2014/15 data on establishments (workplaces) surveyed by location reports that 154,618 establishments (workplaces) were registered in Tanzania mainland where Dar es Salaam had the leading number total of 29,060 establishments (workplaces), followed by Mbeya region with 11,103, Morogoro 9,919 and the rest in other regions (Ministry of Finance and Planning, 2020).

OSHA Annual Performance records for the past three consecutive years 2018 to 2020 show minimal increase in compliance status compared to the rate of workplace inspection. In the financial year 2018; 16,074 workplaces were inspected, compliance level recorded was 2.6 %, while in the year 2019 compliance level was 3.5% among 20,016 inspected workplaces; and in 2020 compliance dropped to 0.7% with increase in number of inspected workplaces to 173,116 (OSHA, 2020). The factors that led to the drastic fall of compliance level in 2020 as compared to the two previous years have not been accounted for. This study to some extent may find out the factors that contributed to the noted discrepancy in the compliance levels.

High workplace OSH compliance status has been the government and enforcing authority expectation in promotion and ensuring of workplace safety and health through adherence to the stipulated regulations. The gap existing in the OSH compliance status among inspected workplaces is outrageous. However, there is no much known about factors influencing implementation of the minimum OSH compliance requirements among compliant and non-compliant inspected workplaces resulting to the objectionable OSH compliance status in the country. This study therefore aims at determining the factors influencing implementation of minimum OSH compliance requirements among compliant and non-compliant workplaces that were inspected between 2018 and 2020 in Kinondoni Municipal.

1.3 Rationale for this study

The results of this study will provide answers for the low OSH compliance level in the country. Researchers, policy makers, implementing organization, law enforcers and interested stakeholders will benefit from this study as it will lead them in finding solutions for the identified factor hindering workplaces from complying with OSHA regulations. The findings will enable OSHA to plan for interventions that will improve and increase countrywide workplace OSH compliance levels. Eventually this will have impact on the reduction of work related and occupational diseases, injuries/accidents and fatalities occurring at work thus improved occupational safety and health.

1.4 Conceptual framework

Conceptual framework is defined as a graphical or narrative explanation of concepts, beliefs, assumptions, expectations and theories of key factors, variables or constructs influencing a phenomenon. This is a tool that can be used to increase relevance of research findings for informing implementation practice.

This study was guided with the Consolidated Framework for Implementation Research which is a determinant framework that guides systematic assessment of multilevel implementation context to identify factors that might influence intervention implementation and effectiveness. Utilization of the CFIR was developed by Damschroder and Lowrey as a tool through which variations and comparison in the use of CFIR constructs in the implementation of an intervention are explained. (Keith *et al.*, 2017) The framework provides that there are five major domains each of which may affect intervention's implementation including;

- i. **Intervention characteristics** These are the features of an intervention that might influence implementation. It involves eight constructs such as complexity of the intervention, stakeholders' perception about the advantages of implementing the intervention, source, evidence, adaptability, design and cost
- ii. Outer setting These are environmental or external features that might influence implementation. Four constructs in this feature include external policy and incentives, needs and resources, peer pressure and cosmopolitanism
- iii. Inner setting These are the implementing organization features that may influence implementation. This aspect has twelve constructs such as organizational structure, leadership engagement, implementation climate, culture, networks and communication, readiness,
- iv. Implementation process These are tactics or strategies that may influence implementation. Eight constructs are related to this feature including planning, engaging appropriate individuals in implementation and use of the intervention, executing, evaluating and reflecting

v. **Behavioural characteristics** of individuals involved in implementation which may influence implementation. Five constructs are involved in this aspect which are knowledge and belief about intervention, identification, selfefficacy, stage of change, and other attributes

The OSH compliance process as stipulated in the OSHA General administrative rule amended in 2015 begins with workplace registration followed by implementation of minimum OSH compliance requirements with regard to workplace nature of operations and workplace hazard profile and finally application of the compliance certificate from the enforcing authority. Implementation of these requirements involves collaboration between workplace and the enforcing authority. Workplace compliance status is determined implementation of the OSH requirements such that a workplace that has presented all specific requirements is considered a compliant workplace and the contrary leads to workplace non-compliance (OSHA, 2015).

The researcher in this context assessed only four domains of the framework to understand the factors influencing implementation of OSH requirements thus workplace compliance status. These domains are the independent variables influencing the outcome variable which is workplace compliance status as follows;

- i Intervention characteristics which will be represented as how the enforcing authority (OSHA) administers regulatory reinforcement actions to workplaces to influence workplace OSH compliance
- ii Inner setting represented as how workplace internal factors such as workplace nature (operations, size and structure), management commitment to safety, inadequate OSH data management, financial stability and business reputation influence workplace OSH compliance.
- iii Outer settings represented as how external forces such as need for meeting international business standards, customer and marketing demands, contract/project eligibility, procurement standards influence workplace OSH compliance and
- iv Behavioural characteristics represented as how workers' safety practices such as proper use of PPEs, adherence to safety rules, recognising the value of personal safety while at work and their involvement in safety and health issues influence workplace OSH compliance.

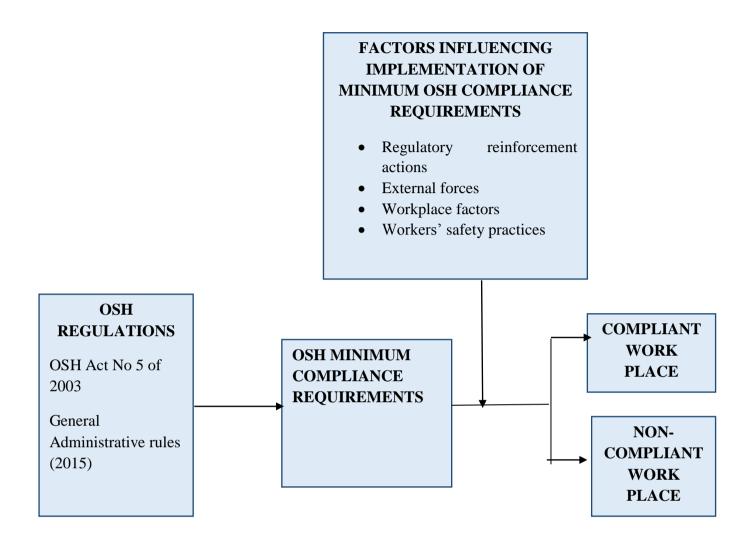


Figure 1: Conceptual framework showing the OSH compliance process and how dependent variables (compliance status) is determined by independent variables (factors influencing implementation of OSH requirements)

1.5 Research questions

1.5.1 Main research question

Why do the inspected workplaces in Kinondoni Municipal differ in implementation of minimum OSH compliance requirements?

1.5.2 Specific research questions

- What are the factors facilitating implementation of minimum OSH compliance requirements among compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal?
- What are the barriers hindering implementation of minimum OSH compliance requirements among non-compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal?
- iii. What are the regulatory reinforcement actions administered to the inspected non-compliant workplaces in Kinondoni Municipal to foster OSH compliance?

1.6 Research objective

1.6.1 Main objective

To determine factors facilitating and barriers hindering implementation **of** minimum OHS compliance requirements and regulatory reinforcement actions issued among workplaces inspected between 2018 and 2020 in Kinondoni Municipal.

1.6.2 Specific objectives

- To determine factors facilitating implementation of minimum OSH compliance requirements among compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal
- ii To determine barriers hindering implementation of minimum OSH compliance requirements among non-compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal
- iii To explore regulatory reinforcement actions administered to non-compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal to foster compliance

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Factors facilitating implementation of minimum OSH compliance requirements

2.1.1 Workplace Factors

Through a survey on how safety and health management is accomplished at workplaces; analysis showed that the frequently implemented interventions were availability of OSH policy documents, OSH discussions in high-level management meetings, conduction of regular risk assessments and involvement of line managers in OSH discussions. These results supported the proposition that workplace regulatory context and features can manipulate OSH management (Walters, Wadsworth and Quinlan, 2012).

The same study also revealed that industry nature (size, processes and past economic history) has significant association with OSH management. The indicators showed that OSH management is highly considered in industries such as mining, construction, health and social work in contrary to public administration and real estate firms. Cost was identified as another factor influential to implementation of OSH goals and legislative compliance. Costs were categorized as those perceived by the employer (financial, technical and temporal costs), those perceived by the workers (job security) and those perceived by the nation and policy makers which are the economic and administrative burden on the business. Among the studied countries, those which experienced severe economic crisis had more challenges in meeting the OSH management goals as compared to those with minimal economic crisis effects (Walters, Wadsworth and Quinlan, 2012).

2.1.2 External Forces

OSH is said to be present in most of the sustainable sourcing policies and strategies of the studied Multinational Enterprise; which highlights the importance they give to OSH results in their supply chains. A central tool of implementation of those strategies is certification schemes for workplace or product managed by private compliance initiatives. From the growing acknowledgement of the limitations and constraints of current goods or workplace auditing practices; identification of OSH hazards and control measures in a systemic manner within national OSH systems as defined in the ILO Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187) to complement verification processes (Lucchini and London, 2014).

Zhou Luji et al in 2019 observed that changes in the global economy, and the nonstop reformation of production program designing on and service organizations tied with succeeding changes in working life and in the responsibilities of employees, have created a pressing need to reinforce and adapt the tools and methods used to ensure protection of health, safety and environment as well as their promotion and proper management at enterprise level. The success in multinational successful enterprises has been linked with integration of health, safety and environment aspects in their overall management systems. To maintain competitiveness on well-regulated markets and globalization demands implementation of holistic integration of health, safety and environmental issues at enterprise level (WHO, 2002).

Customers can significantly influence the adoption of OSH practices by demanding the protection of workers who are producing the goods that are sold in the global market (Lucchini and London, 2014). Similar was observed that customer needs greatly depend on legislative requirements as well as their perception on workplace health management. It was observed that there was a shift in perceptions from viewing workplace health management as preventive measure to occupational injuries to viewing it as overall protection and promotion of workers, health (WHO, 2002).

The study on Occupational Safety and Health in Marketing and Procurement European Agency for Safety and Health at work (2000) posited that the customers' interest in the performance of OSH in relation to the quality of goods is on the rise such that it fosters the holistic OSH strategies and introduction of social and ethical consideration in the evaluation of workplace. The study also came up with the conclusion that the general market system demands the goods and equipment to have certification scheme and labels which base on the applied OSH standards in order to meet the identified safety and needs pertaining to the specific goods. Similar

observation was noted in the case of contractors and management in service sector; thus, promoting the application of OSH standards in the certification and labelling to ensure products quality and purchasers' satisfaction. Changes in the procurement requirements have also been noted to increase the implementation of OSH standards for instance in the construction business which is viewed as the most hazardous nature of work. The client companies when considering of outsourcing labour from their specified contractors; among other requirements they are demanded to have their manpower trained on the application of OSH standards so as to reduce the excessive injuries and harm while executing their duties an aspect that has been proven successful in its application. The case was applied in the procurement of goods and products where the client puts it clear of OSH needs early in the tender stage of procurement. In the procurement of goods from high-risk areas; OSH certification to the contractors in assurance of having trained the workers on OSH application in their daily work life has been one of the considered requirements for contractual agreements (European Agency for Safety and Health at Work, 2000).

2.1.3 Workers' Practices

Workers and their representatives' participation in safety and health issues have been noted to have crucial contributions in workplace safety and health promotion programs. They are the primary beneficiaries of this aspect and have the most to gain or lose if the safety and health programs succeed or fail. Worker/representatives participation entails the involvement of all workers whether employed by contractors, subcontractors, and temporary staffing agencies in establishing, operating, evaluating, and improving he safety and health program. Workers are to be granted chances to participate from the program designing phases of safety and health and implementation and encouraged to participate in the program and give inputs and concerns about safety and health without being retaliated when the report injuries, illnesses and hazards as they engage in the program or practise safety and health rights. They should have access to relevant information whenever needed (European Agency for Safety and Health at Work and European Trade Union Conferederation (ETUC), 2012).

To foster workplace health promotion, it was suggested that an organization should enable her workers to improve and have control over their health. Successful establishment of workplace health promotion management requires among others the recognition of employees' empowerment in terms of their competency, autonomy and sense of coherence as well as appropriate balance between increasing effectiveness and workforce capacities. Facilitation and strengthening of factors fostering the health of all staff and enabling employees to share their interests and expertise with key players was noted as a need for improving workers' participation in workplace health promotion (WHO, 2002).

2.2 Barriers hindering implementation of minimum OSH compliance requirements

2.2.1 Workplace factors

In a study conducted to average of 28 employers of small enterprises in Brazil reported that small enterprises with about 10 employees face barriers in the implementation of OSH due to ineffective or missing information existing among OSH stakeholders. It was observed that lack of adequate mechanisms for OSH data collection and ineffective systems for information collection on OSH performance indicators and to be a barrier to company owners of small companies. Other barriers include lack of communication between employers and employees, high consideration on production than safety, non-definition of OSH which have influence on the employees' perception of the company's position on OSH issues. Management was also considered as a barrier in the implementation of OSH for the poor resource allocation for OSH related issues such as lack of technical and financial resources, difficulty in obtaining authorizations, reduced company consistence and flexibility, management lacking knowledge about OSH and little or inadequate OSH policy at their companies (Garnica and Barriga, 2018).

In an article on barriers to good occupational health and safety practices by small construction firms posited that the challenges and poor management of risks related to OSH in construction business are linked to the highly-transient and dynamic nature of the business. Costs for acquisition of PPEs and safety personnel are regarded as additional project costs. Prioritization on business survival than on safety issues is more obvious in small scale industries due to limited resources and the long time taken for the benefits of investing in safety to be vivid. In order to win contracts from public sectors, contractors are compelled to lower their bidding pricing in turn leads to price cutting pressures to these companies; due to this fact the issues on quality and safety are forsaken. Project deadlines are also considered to be barriers to implementation of OSH in workplaces; as the workplaces strive to meet deadlines the time pressures for project completion increases thus safety is disregarded. The situation is similar to outsourcing scenarios where payment is done upon project completion or payment-by-results system, in such conditions the subcontractors tend to over work and concentrate more on fulfilling the project's demands and not considering safety issues in such pressurised conditions (Jason Gray and Z. Sadiqi, 2015).

2.2.2 Workers safety practices

Lack of awareness training and sensitization on OSH matters is another barrier that was observed at workplace level which is closely linked to time and financial constraints. Lack of OSH awareness observed in the management in small business which believes that safety and risk control measures are the employees' responsibilities and is not for management to focus on. The mobile nature of work in construction due to movements from one site to another may play also as a barrier to implementation of safety as it leads to the labourers' difficulty in following the clients' safety programs. Wrong perceptions and underestimation of risks to both employees and employers should be dealt with to reduce the chances of work-related injuries and accidents (Wong, Gray and Sadiqi, 2015).

A study by Wahyuningsih and Wahyuni, 2018 on the relationship between employee perception about implementation of occupational health and safety with the use of personal protection equipment revealed that majority of the employees (51.5%) understand about implementation of OSH standards since their management provides information on regular and proper use of PPEs. The study identified that internal and external factors such as working experience and working environment influence the use of PPEs among workers. Despite the good number of those responding positively

to PPE use as part of OSH implementation and management emphasis on OSH implementation, some employees were still noted to have low use of PPEs as part of OSH implementation. This result was affiliated with the employees' lack of awareness on self-protection, poor thinking about self-protection, and lethargy in the application of OSH at workplace level and even for self-protection thus leading to negative notions towards implementation of OSH standards at individual level (Wahyuningsih and Wahyuni, 2018).

A study on barriers to occupational health and safety management in small Brazilian enterprises provided that workplace owners are of the view that most barriers to implementation of OSH standards are related to the employees' systematic inadequate behaviour, poor involvement in OSH activities as well as lack of awareness on the importance of OSH in their daily work life. In this study employees were observed not to be following the OSH rules like the use of PPE nor following safety working procedures thus called for company management support and employees engagement in OSH related issues as an effective problem-solving process required for improvement of safety culture of workers and companies at large (Garnica and Barriga, 2018).

Studies conducted in Tanzania show that most of the country natives' awareness just as that of the workers awareness on the occupational safety and health regulations and how to implement them is insufficient accounting to the unacceptable compliance statistics which in turn impacts the country's economy. Proper strategies such as legal provisions modifications, increase OSH awareness and service coverage and more effort in enforcement of the OSH regulations are of essence to promote compliance with the OSH regulations (Mrema, Ngowi and Mphil, 2015).

2.3 Regulatory reinforcement actions

Variation in compliance definition existing between the regulating agencies and those being regulated has made it complex in understanding the legal compliance concept. Socio-legal scholars are of the view that compliance is a term used in understanding regulatory effectiveness which can be defined in two ways; one is "enforcement strategies which may be accommodative or punitive used by agencies to secure regulatory compliance", while another definition is "the extent to which the regulated community complies with regulations and its reasons for doing so". Compliance was said to be a sufficiently impressionable term with a series of activities and aspects of regulation such as the act of enforcement of the law, the process of securing the fundamental aims and objectives of regulations and the arbitration of regulatory outcomes. In this context; the regulatory side considered legal compliance in aspects such as compliance behaviour interpretation by defining unclear responses at policy and field levels, recognizing violations and remedying the related problems; motivation and identification of drivers to compliance whereby these features may be used to assess enhancers to compliance and law enforcement. The regulated society saw compliance as adherence to what the regulatory body asks them to do which may be affected by misapprehension and misinterpreting the laws in detail. This may be influenced by the broad regulatory context; the activities of regulatory agencies; the actual design of the regulatory rules or standards themselves; and the behaviour and characteristics of those being regulated (Amodu, 2008).

Implementing successful strategies for OSH regulation in a swiftly changing world of work is an ongoing challenge for regulators in various nations. Ensuring that regulatory practice is evidence-based and aligned to legal mandates is crucial to ensure the health and safety of workers and others are highly protected from work related disease, injuries and deaths. Different ways of administering these OSH regulations may result to various outcomes related to the different approaches. This can be seen in the case of Australia where the Workplace Health and Safety Queensland (WHSQ) which applies multiple regulatory approaches which have proved improvement in creating sustainable means of managing workplace risks to accidents, diseases and deaths. The regulatory approaches applied by the body include risk-based management of workers' health and safety and any breaches against the regulations calls for the immediate regulatory body response, this is achieved through inspections and notice provision for non-compliance. The second approach used by WHSQ is to ensure systematic management of workplace safety and health by making sure that other stakeholders such as business and organizations fulfil their responsibilities pertaining to workplace safety. In serious risk existence where protection of the safety and health of workers is jeopardized to unbearable limits prohibition and/or improvement notices may be warranted until when the risk is

managed to an acceptable level. To effectively and efficiently secure compliance and improvement to workplace safety and health management, complementary and congruent application of all the approaches is emphasized rather than using one single approach (Queensland Government, 2017).

Organization for Economic Cooperation and Development (OECD) in 2000 reported about reducing the risk of policy failure by studying the challenges for regulating compliance and proposed that in order to improve regulatory compliance through enforcement; involvement of all elements of the chain of decision makers; from those defining the problem to compliance monitors must be considered. Those participating in the process of developing and enforcing regulations need to realize the interdependent nature of their actions, and the necessities for consistency and coordination. The regulators also need to know that traditional regulatory move towards establishment of standards of behaviour and legal enforcement mechanisms is not the only means for governments to influence the behaviour of citizens and enterprises and may not be the most effective way to promote regulatory compliance among the target group. To promote regulatory compliance among target group, regulatory bodies must put into consideration the extent to which the target group can comply with the rule, target group knowledge of and comprehension of the rule and target group willingness to comply with rules. To achieve regulatory objectives that is fostering compliance; policy makers should understand the nature of different policy instruments, habits of the regulated target group and of the regulatory context (OECD 2000).

The study also outlines other important factors that regulators should consider to improve regulatory compliance include focusing on compliance feasibility (workplace size, structure, and business nature), information dissemination to increase target group awareness of the rule, regulatory design evaluation leading to development of realistic and compliance-friendly regulatory designs and integrated strategies. Collection of reliable compliance data as a means to monitor compliance trends will enable regulatory bodies to assess and improve their effectiveness and enforcement of activities which will enhance changing from traditional ways of measuring the inputs i.e. regulatory own level of activities but rather shift to output measuring in terms of health effects, decreased injury incidences and environmental outcomes (Parker, 2000).

A study in management of legal compliance in health and safety; successful strategies as well as main difficulties that companies face in implementation of OSH were discussed. This study based on assessing how compliance with legislation, regulation and standards influences health and safety management in different companies. It was of the view that effectiveness of the regulatory system, knowledge and understanding of the legislature, economic position, human and material resources have influence in implementation of OSH compliance process (Salguero-Caparrós *et al*, 2020).

In Tanzania the regulatory authority (OSHA) through its legal Act No 5 of 2003 section IX, has stipulated various reinforcement actions for non – compliant workplaces and offenders to the specific legal requirements. The organization applies both accommodative for instance advising the workplace accordingly and provision of improvement notice and time for the workplace to adjust according to the compliance requirements. For workplaces that have not responded positively with the accommodative strategies within given time and also depending on the non-compliance magnitude punitive strategies such as provision of monetary penalties, prohibition notice which may require the occupier to close the whole workplace or shut down some operations within the workplace that do not adhere to the safety and health rules. This may be applied in conjunction with/or referring the matter to the court (OSHA, 2003).

CHAPTER THREE 3.0 METHODOLOGY

3.1 Study Setting

This study was conducted in Dar es Salaam at Kinondoni Municipality. Dar es Salaam is among other two regions in OSHA Coast Zone. It carries the largest number of workplaces both registered and non-registered countrywide (Ministry of Finance and Planning, 2020). The total inspected workplaces in Dar es Salaam for the period in question is 11,714 (OSHA, 2020) insinuating the city being a major contributor to the country's economy due to the business features of the city. The population size is estimated to be 4,364,541 with a population increase rate of 5.6 percent per year from 2002 to 2012 (National Beaural of Statistics, 2013).

Table 1: Cumulative data showing number of inspected workplaces againstcompliant workplaces in Dar es Salaam for years 2018, 2019 and 2020

YEAR	INSPECTED WORKPLACES	COMPLIANT		
		WORKPLACES		
2017/18	9,189	217		
2018/19	10,843	357		
2019/20	11,714	993		

Source: Statistics department - OSHA Tanzania

3.2 Study Design

Implementation of this research employed the descriptive cross-sectional design in qualitative approach for data collection which enabled the researcher to gather different explanations on factors influencing implementation of minimum OSH compliance requirements among workplaces inspected between 2018 and 2020 in Kinondoni Municipal.

3.3 Study Population

This study involved persons overseeing safety issues (safety focal persons) from both the selected compliant and non-compliant workplaces inspected by OSHA in Kinondoni Municipal between 2018 and 2020.

3.4 Sampling Method and Sample Size

Kinondoni Municipal was purposively selected due to presence of wide variability of workplaces in terms of nature of operations, size, workplace and structure. The researcher identified the recorded workplaces in Kinondoni Municipal that were inspected between 2018 and 2020 through review of documents from the enforcing authority. Due to limited availability of data at district level, the researcher then purposively selected 15 compliant workplaces and 15 non-compliant workplaces with regard to their size, nature of operations and workplace structure. From the selected workplaces the researcher then purposely selected respective well informed and experienced safety personnel such as safety managers, safety officers, SHE representatives. Workplaces which did not have safety personnel; any persons (safety focal persons) overseeing workplace safety issues such as administrators, human resource officers, legal officers, procurement officers, directors and CEOs were interviewed. A total of 27 (14 from compliant and 13 from non-compliant workplaces) respondents were interviewed upon arrival to saturation point.

3.5 Data Collection techniques

The principal investigator distributed introduction letter to all selected workplaces and made appointments with respective key informants for interview at their convenience. The PI together with one research assistant conducted IDI to one informant from each of the workplaces. Before interviewing the informants, they were asked of their written consent and permission to be audio-recorded. The PI utilized a range of about 30 to 45 minutes for the interview while research assistant was taking notes on key issues simultaneously. The procedure was repeated to all informants from the selected workplaces until saturation point was achieved. Following the interviews, computer files were created after transcribing the recordings then translated into English. Data sorting and checking was conducted on daily basis to check for completeness and consistence. For any incomplete or nonconsistent information, the researcher called the specific interviewed respondent with the workplace incomplete or non-consistent data to make necessary adjustments. Informants were assured of human subjects' protection by the researcher against any exposure of their identities by using workplace names rather than real respondents' names. After the final research report production, data kept in the computer files was stored in an inaccessible reach.

3.6 Data collection tool

The IDI guide and compliance checklist guided the data collection exercise to extract crucial information from experienced and well-informed respondents. Two sets of IDI guide for the compliant and non-compliant inspected workplaces were administered to the respondents respectively to gain of their experiences in implementing OSH compliance criteria, hear about their views towards fulfilment of OSH compliance criteria, and exploring the factors that facilitate implementation of OSH compliance criteria among compliant workplaces and barriers to implementation of OSH compliance with OSH criteria among the non-compliant workplaces. IDI guide was prepared in two languages to suit the respondent's comfort and familiarity in language fostering good quality of data. Data collected in Swahili language through the Swahili IDI guide was then translated to English to enable data analysis. Observation checklist was used to verify other OSH implementation aspects.

Pilot interviews was administered among rapidly available two compliant and two non-compliant workplaces inspected in Kinondoni Municipal between years 2018 to 2020 to test the capacity of the tools ability in capturing relevant answers to the research question. No modification and mitigation were needed as both tools appeared to be collecting relevant data as per research questions. A potential research assistant was recruited and familiarized himself with the tools prior real data collection.

3.7 Data Analysis

Deductive thematic analysis was applied to analyze qualitative data collected through IDI. The data was first transcribed then translated into English. The information obtained was critically analyzed to systematically identify significant codes from the data set. Codes were collated into the pre-determined themes from the CFIR which

gathered all relevant codes. Thematic map was generated after checking the themes with regard to the coded extracts and the data set. After having analysed thoroughly to understand thematic contents; four themes namely regulatory reinforcement actions, workplace internal factors, external forces and workers' safety practices were defined. Analysis report was formulated after the final analysis leading to selection of vivid compelling extract and relating them to the research question and literature.

3.8 Trustworthiness

In trustworthiness assessment of this qualitative study; four stipulated Guba criteria of credibility, dependability, transferability and conformability were used (Connelly, 2016). This study findings credibility was established through the triangulation of informants from various workplaces differing in nature, size, structure and operations. Dependability was fostered through the triangulation of the study setting, researchers and data collection process which was carried in settings that were familiar to informants. The categories in this study were deductively generated from pre existing themes from the determinants for implementation framework for the purpose of confirming the data obtained from participants in order to enhance conformability. The categories were then presented with the support of codes and quotations. Detailed study setting, context, data collection process and analysis description was used to foster the transferability of the study findings.

Finally, it should be understood that this study findings reflect only the situation during which data was collected.

3.9 Ethical Consideration

Ethical clearance was provided by the Muhimbili University of Health and Allied science (MUHAS), Research and Publication Ethics Committee. Introductory letter was submitted to OSHA Chief Inspector to seek for permission and support to conduct the study in Kinondoni Municipal – Dar es Salaam. Introductory letter was also sent to Coast Zone Manager in Dar es Salaam. Consent to access document for review was provided by Director of Training, Research and Statistics. Written informed consent was obtained from each informant having explained the purpose of

the study. Data collection was conducted in workplaces and to informants who consented for the exercise.

Respondents were rest assured of high confidentiality for the data collected. Collected information was handled with extreme care by the principal investigator whom is the only one with access to all data and study documents.

3.10 Study limitations and mitigation plans

Researcher's purposive selection of only willing study participants while disregarding those who did not wish to join the study could bring about bias. This error was managed through information sharing on the importance of the study findings

Risk of information bias where participant would only respond to questions as they recalled their answers and where they did not recall could give false answers without researcher's awareness. The researcher did not only rely on the responses from informants but also through the specific workplace OSH information available at the authority.

Researcher's bias due to the fact that the PI works with the reinforcing authority was be handled by involvement and thorough training of two competent research assistants about data collection techniques.

3.11 Dissemination

The dissertation soft copy has been uploaded to the MUHAS online library. Hard copies of the dissertation have been submitted to the MUHAS School of Public Health and Social Sciences. The findings will be shared with OSHA and the selected workplaces. A manuscript has been prepared for publication in a medical journal.

CHAPTER FOUR

4.0 RESULTS

4.1 Demographic characteristics of the informants

Demographic characteristics of key informants address some important specifications among the population under investigation for the study results. The researcher used this to delineate some few demographic aspects to understand the overall perception of OSH and behavioural change aspect in the implementation of compliance requirements. The results show that about 78% of the informants were males while 22% were females. Their age ranged 26-35 (30%), 36-45 (33%), 46-55 (26%) and 56-75 (11%) and all (100%) had tertiary education level. Table 4.1, 4.2, summarize a synoptic view of the informants for this study.

	Informant type	Sex	Age (years)	Position	Education	Experience (years)
1	Compliant	М	45	Safety and health manager	Bachelor-food science	7
2	Compliant	F	30	OSH manager	Bachelor of Science Food Engineering	2
3	Compliant	М	48	Safety manager	Bachelor of social science; safety course; NEBOSH; System management audit	13
4	Compliant	М		Engineer		
5	Compliant	F	48	Administrator	Bachelor of Science	26
6	Compliant	М	74	Quantity Surveyor Engineer	Adv. Diploma in Quantity Survey	17
7	Compliant	F	35	Administrator	Secretarial certificate	9
8	Compliant	М	60	Administrator		25
9	Compliant	М	52	Administrator	Diploma in accounts & Human Resource	10
10	Compliant	М	53	Administrator and safety Manager	Bachelor Degree in Administration	4
11	Compliant	М	34		Bachelor –IT	4
12	Compliant	F	34	EHS Personnel	Bachelor of Science in Sociology	7
13	Compliant	F	32	Human Resource Manager	Bachelor Human Resource	3
14	Compliant	М	36	OSH manager	Post graduate diploma in Industrial safety	2

Table 4.1: Compliant informants

Source: Informants, Kinondoni Municipality,

	Informant type	Sex	Age (years)	Position	Education	Experience (years)
1	Non-compliant	М	55	Technical director	Associate mechanical engineering	13
2	Non-compliant	М	38	Human resource officer	Bachelor human resource	4
3	Non-compliant	М		HR		
4	Non-compliant	М	63	Project Coordinator also CEO for Liganga- Mchuchuma project	Master of Arts - Management	30
5	Non-compliant	М	29	Human resource officer	Masters of Business Administration- corporate	
6	Non-compliant	М	56	Civil Engineer	Civil Engineering	20
7	Non-compliant	F	50	Head Procurement Officer	Masters of science in Supply Chain	15
8	Non-compliant	М		HR		
9	Non-compliant	М	60	Administrator		25
10	Non-compliant	М	34	Managing Director	Degree- Civil Engineering	10
11	Non-compliant	F	30	Administrative assistant	Diploma-Business Administration	6 months
12	Non-compliant	М		Administrator		
13	Non-compliant	М		Engineer		

Source: Informants, Kinondoni Municipal

4.2 Factors facilitating implementation of minimum OSH compliance requirements

4.2.1 Awareness on OSH compliance requirements

All the informants confirmed to have insight of the minimum OSH compliance requirements. They reported that workplace inspections by OSHA inspectors, OSH Act no 5 of 2003 and other government agencies such as National Environment Management Act, Mining Act, Workers' Compensation Act and Fire and rescue Act, were means of how they became aware about OSH requirements. From both compliant and non-compliant workplaces; one informant said that:

"I know the requirements to comply with OSH. For the first time in 2012, OSHA visited us and we were not registered with it. When they visited here, they clarified the procedures needed to register with and the advantages of complying with their requirements at work. Then, informed us more that it is something to do with government established regulatory authority, there to protect workers when at work." (Compliant C09)

Another informant reported that;

"I came to know minimum OSH compliance requirements through OSHA officers when they visited our office. OSH compliance requirements I know are training especially on first aiders; use of PPEs in workplace by employees; observe fire regulations; keep specific place to keep hazardous equipment; and observance of staff uniforms" (Non-compliant NC 03)

Both compliant and non-compliant informants show commonness in the means of how they became aware of OSH compliance requirements at workplaces. Respondents from both compliant and non-compliant workplaces were aware of the minimum OSH compliance requirements and have insight of the OSH Act No 5 of 2003.

4.2.2 Implementation of minimum OSH compliance requirements

Various factors have been associated with how both compliant and non-compliant workplaces implement the minimum OSH compliance requirements. Factors such as international market demands, workers' safety practices, regulatory style, management commitment, increased productivity, customer demands and workplace financial status were mentioned by the informants. The following are the results obtained from informants of both compliant and non-compliant workplaces showing factors influencing implementation of the minimum OSH compliance requirements at their workplaces;

The need to maintain international marketing demands which requires implementation of international safety standards was one of the external factors for complying with OSH regulations as said by the informant below;

"We are provided with OSH compliance requirements but Coca Cola Kwanza has to fulfil international safety standards in order to do business by the name of Coca Cola. In meeting international requirements, we fulfil local OSH compliance requirements automatically. Local OSH compliance requirements include; provision of PPEs; medical check-ups; plant, electrical, hygiene, ergonomics inspection; attend trainings include first aid, fire, etc. Apart from OSH inspections, we are inspected by international auditors such as ISO, Nasa, Gao, and CORE...." (Compliant C02)

It was reported that in order to be contracted for projects; one of the investors eligibility requirements is compliance with OSH regulations. A non-compliant informant mentioned that;

"Yes, because we do projects with partners like World Bank and among the criteria to sign for their BOQ is to comply with safety regulations. So, if we don't comply, we miss the project and that reminds us to do the inspections and make compliance follow up..." (Non-Compliant NC10) Workers' safety practices have also been mentioned by the informants to be a factor influenceing implementation of OSH compliance requirements in a workplace.

An informant reported;

"Let me be very honest. The company provides PPE every year. Whether we utilize them 90 or 100 percent is question mark. We have committee members who counsel employees but still when supervisor is not there, they do not use PPE" (Non-compliant NC 01)

Another informant was of the view that;

"....For instance, we ask workers to do risk assessment every before they start working but they will tell you 'I am an engineer I know what I am doing'. On the other stance, is alcohol use upon entry to our factory; when you tell the worker that you need to come to the office free from the influence of alcohol becomes a challenge...." (Compliant C03)

Workplace internal factors were expressed to be influential in implementation of OSH compliance requirements as explained by an informant below;

"...low cooperation from the management emanated from costs of OSHA compliance. We are about 250 employees head office and sites combine. PPEs budget is approximately TZS 30 million per year. Given this costs we try hard to convince the management to see the importance and fulfil OSHA compliance requirements..." (Non-compliant NC 05)

On the question about practicability in implementation of the minimum OSH compliance requirements, an informant reported that;

"On my views, OSH requirements are quite normal to fulfil, they are not so much hard. This is because, once they visit you for inspection, they usually instruct you, in case something hasn't been fulfilled, they give you more time to fulfil and so forth. On top of that, you are just required to pay their bills timely, nothing more than that. Out of that, you get the compliance certificate." (Compliant C 09)

Another informer stated that;

"The requirements are easy to fulfil, they are not hard to fulfil, I mean, most of the people do not fulfil because of the costs. The costs begin from the safety gear. The very minimum of safety gear for safety is from 35 000 to 40 000 TShs. If you purchase those of 10 000 to 13 000, they do not last even to one month. This is more costly; it is better if you would have bought that which is more costly and be used in three to six months. For a worker of the field, to enable him run within a year. You are to recycle in more than three times. If very much economized, she/he must have utilized twice, but not once. Now, if you have 1000 workers, 800 or 500, you can find out how much cost comes there. Yet, you have not come to the costs of helmets and so forth. But all of them need money. Moreover, there are protection garments, and so forth, depending on the types of protection needed." (Non-Compliant NC 09)

Broad-spectrum of implementation of minimum OSH compliance requirements

In order to understand factors influencing implementation of minimum OSH compliance requirements in a wide spectrum; the researcher explored more views on implementation.

The informant stated that;

"We successfully implement all OSH compliance requirements. Sometime we repeat implementing some inspections we have already done with other experts from abroad in order to produce quality products for our customers and comply with OSH requirements." (Compliant C 05)

Another informant shared that;

"We manage by making sure the company set aside financial resources for safety and healthy under supervision of head of safety and health at workplace. For us it does not matter how costly it is, safety comes first." (Compliant C 01) The same informant reported that;

"...... is my 5th employer and number one in terms of implementing OSH compliance requirements. OSH requirements are implemented above 90% here. [What gives you such a confidence?] As a head of safety and health at the workplace I have been receiving full support from the management. It is no surprise for me to stop operations for safety issue even now. This morning I held two hours meeting on safety that was attended by top staffs from my company and Mother Company. [You also mentioned financial resources earlier. What else facilitates implementation of the requirements?] Training for managers and directors on safety issues for instance last year we registered all managers for Global certificate on safety [Who offer this course?] UK." (Compliant C 01)

Another informant said that;

"I would say implementation of OSH compliance requirement is 50% easy and 50% difficult [what are the facilitators?] It is easy because of team work between EOSH department, management and safety committee. Also, the use of laws: we have company safety policy, we put safety posters at the reception, canteen and many other areas to remind employees and I am glad it has strengthened employees' awareness. In addition, we hold safety meetings from time to time that remind employees on safety issues" (Compliant C 02)

Another informant mentioned that;

"We implement OSH compliance requirements by 100%. In addition, we ensure all subcontractors we work with comply. For medical examination we budget every year and every July/August we invite OSHA for checkups and reports are submitted. It is challenging for organizations with low financial capacity but for us it is a responsibility" (Compliant C 03) From the above informants' views, company financial status, management engagement, setting priority for safety and health issues, raising employees' awareness have been stated as factors that influence implementation of OSH requirements.

Importance/Relevance of implementing the minimum OSH compliance requirements

In this aspect, compliant and non-compliant workplaces stipulated how implementation of the minimum OSH compliance requirements is important/relevant in their daily activities. Workers' protection, workplace reputation, legal implication, and equipment safety were expressed as major factors for implementation minimum OSH compliance requirements.

One compliant informant reported that;

"We believe survival of the factory in its workforce. Worker come to work in order to earn income and not injured. Therefore, for development of our factory relies on safety this applies even to the nation. Safety in workplace facilitates production. Second, it brings bad image to the public when in case of workers' deaths or fall sick. Remember this factory is registered in Dar es Salaam stock exchange. I believe when shareholders sit in annual meeting, they do not want to hear incidence of death/injuries/accidents because it portrays bad image to the public thus, no one will come to buy shares in the factory. So, for us first is safety then production" (Compliant C 03)

Another informant responded that,

"Fulfilling OSH compliance requirements is relevant in my workplace because first, it saves lives of people. We conduct medical check-up of our employees when they join, periodic and exit. Telecom engineers and technicians climb up to towers, they can fall down and get injured or even die then it saves us in case of mitigation. Otherwise, we are in trouble. And this is why OSHA insists on having safety policy and aligned to law of the land. All these details are included in risk assessment report submitted to OSHA." (Compliant C 04)

Another informant said;

"It ensures safety in workplace in terms of accidents/injuries and diseases. How? By taking medical checkups workers become safe from diseases because for those found sick, they receive treatment or provided with respective working gears. Also, training reduces accidents/injuries on one hand and equips us with first aid services. In addition, OSH compliance ensures proper functioning of plants/machines thus, increase quality and productivity." (Compliant C 05)

Another informant mentioned that;

"It is appropriate to comply with OSH compliance requirements because is a legal requirement; to keep good relationship with OSHA; contribute to the government revenue through payment of different statutory charges; and it facilitates raising safety awareness to employees especially foremen through training and thereby reduce accidents/injuries to some extent." (Compliant C 06)

The above informants above have reported factors such as workforce protection, quality good and service production, prevention of occupational deaths and injuries/accidents, good company reputation and strengthened community relationship make implementation of OSH requirements relevant in their workplaces.

4.2.3 Barriers in implementation of minimum OSH compliance requirements

The study sought to explore barriers hindering implementation of minimum OSH compliance requirements among non-compliant workplaces inspected between 2018 and 2020 in Kinondoni Municipal. The researcher investigated the targeted informants about the potential barriers hindering their workplaces from implementing the minimum OSH compliance requirements.

Barriers for implementing OSH as perceived by compliant workplaces

Complying workplaces were assumed to act as role models for complying with minimum OSH compliance requirements. Despite being compliant with OSH regulations, there were factors which contributed at some point to difficulties experienced during implementation of the minimum OSH requirements.

One informant reported that;

"There is some sort of hardship, although it is not so high. Human beings as such face various challenges, that is, the level of understanding. Sometimes, once you instruct the workers to do this way, yet they don't follow. For instance, the supervisor can insist the workers to wear protective gears, but once the supervisor is not there, the worker takes it off...." (Compliant C 10)

Another informant mentioned that;

".....In addition, lack of commitment by the management. For instance, OSH requires medical check-ups for all workforces. But in 2018 the management decided to check few especially those working in accident vulnerable department instead. As a result, the company could not obtain compliance certificate for 2018/19. The following year we had to carry out medical check-up to all employees to comply" (Compliant C 02) Another compliant informant was of view that;

"It is very challenging to implement OSHA compliance requirements in our company. I would say is difficult by 80%. How? Training fees are very high while other fees are not clearly known; it is TZS 250,000 per person. Sometime we receive low cooperation from the management as a result of low awareness of OSHA requirements. Current our relationship with OSHA is not good. It comes a point where 'it comes a point when I see OSHA officers, I want to run away from them'. Again, there are duplication of efforts between NEMC, OSHA, FIRE and local government authorities. For use is wastage of valuable time. In addition, sometime we encounter misuses of PPEs by casual employees. Employees run away or deliberately do not put on provided PPEs. Also, OSHA fines are another challenging whip ". (Compliant C 08)

Another informant stated that;

"Delays in issuing compliance certificate is a problem. I remember previously OSHA used to come as a group at a specified time limit and conduct all inspections valid for one year. But now current medical check-up is in October and other inspections come in July, August, and September which is time consuming for completing compliance license for us. Revisit training issue and extend validity of safety license. [How?] Not everybody is trainable. Different people have different mind-set. We select trainable workers who will bring the knowledge in the workplace as they may be required. If we retain the trained workers, why should we re-train them on the same thing every year?" (Compliant C 10)

Limited workers' awareness on the OSH issues, workplace financial status, lack of management commitment to safety issues, have been mentioned as barriers that may affect implementation of the minimum OSH compliance requirements. Other mentioned barriers were inadequate availability of safety personnel, need to meet production/service provision targets, bureaucracy in issuing of compliance certificate, overlapping of legal demands and cost for OSH services.

Barriers for implementing OSH as perceived by non-complying workplaces

Informants from non-compliant workplaces revealed a number of barriers including limited awareness on the compliance procedure, the delays in issuing compliance certificates and workers' poor safety practices. Other mentioned barriers are regular unordered repetitive medical check-ups occurring at different time intervals within the same year. Expensive and repetitive trainings with similar contents, and overlapping of legal demands were raised.

One informant reported that;

"I never knew anything about compliance certificate, what I know is after registration and inspections that is it, did not know if there was anything to be followed up like that." [Question: Do you know that there is minimum OSH compliance requirements such as OSH inspections, use of PPEs, medical examination which when fulfilled your workplace will qualify for compliance certification? Response: OSHA inspectors come for inspections yearly, they do medical check-up to our employees the same applies to fire rescue people, we pay for our staff to be trained.] [Question: Why is it that your workplace does not have compliance certificate despite the fact that you fulfil all those OSH requirements? Response: I did not know if there was a compliance certificate I am to be awarded with after implementing those requirements, this is not a misinformation, we just don't know]", (Non-compliant NC 01)

Workers' practices towards workplace safety and self-protection have been identified as a barrier influencing implementation of minimum OSH compliance requirements. One informant reported;

".....the remaining 15% depends on human behavioural aspects. The management provides PPE but employees don't wear them. Forcing people to wear PPE becomes a big issue; we are still trying to overcome the problem by making them sign to acknowledge receipt of PPE which shall be used for a specified period of time before being supplied again. People are careless, you may provide them with safety reflector jackets and in a day you find out that they don't have them some saying they have lost them in the public transport or somewhere else and we can't be buying and providing these materials daily since they are expensive. I think there is a need for awareness trainings and I don't know like education to raise awareness to employees otherwise things are complicated." (Non-compliant NC 10)

4.2.4 Regulatory reinforcement to non-compliant workplaces

In this context non-compliant workplaces explained reinforcement actions administered to them by OSHA for not implementing any of the stipulated minimum OSH compliance requirements.

One informant stated that;

"Yeah, we have once been given fine for not implementing but other times they give some time for improvement before they come for inspection again to prove if we have fulfilled the instructions." (Non-compliant NC 10)

Another informer reported that;

".....but our loading unit was closed for 3 days when our employees found working without PPEs. To cope with the challenge, we supplied new PPEs. This year some staffs were injured in one of our heater (they are doing fine though) that lead closure of the heater for few days." (Non- Compliant NC 04)

The informants also gave advice on what OSHA should do to improve compliance among workplaces. One informant said;

"I think most of companies do not implement most of OSH requirements especially medical tests. I would advise OSHA to strengthen its monitoring department. (Non-compliant NC 02)

Another informant was of the view that;

"I think they (non-compliant workplaces) are not informed with the law or they know enforcement is weak" (Compliant C 01)

Another informant advised that;

"First of all I congratulate OSHA for notable transformation. (i) We advise OSHA to increase their workforce to cope with industrial agenda. I am not sure clients at regional level get access to OSHA services; (ii) OSHA should provide education to workers at their workplace in order to raise safety awareness and attitude. Workers should know safety is individual responsibility; (iii) OSHA should provide lifting, air receiver equipment etc. inspection stickers that show next inspection date (inspection tags) currently they don't, even if they add on small amount inspection costs. On the other hand, we have good training room here; we have used it for training jointly with OSHA in 2019 and 2021. I request OSHA to come when we organize indoor training and consider reduce training cost in order to have sustainable training. We will also continue insist our clients to comply with OSH requirements." (Compliant C 03)

OSHA was advised to reduce their service charges; increase coverage of her services and raising awareness on safety issues to employers and employees, change of training modalities by upgrading the course contents to avoid monotony. OSHA should often meet safety professionals to exchange ideas also strengthen her enforcement strategies to foster workplaces' compliance.

CHAPTER FIVE

5.0 DISCUSSION

The major aim of this study was to determine factors influencing implementation of minimum OSH requirements among workplaces inspected between 2018 and 2020 in Kinondoni Municipal. The findings will insight the government, other OSH stakeholders and enforcing organization on working strategies to improve OSH compliance among workplaces in Tanzania. Workplace compliance status is determined by the degree of implementation of the minimum OSH compliance requirements in relation to operations, nature of work and hazard profile of a specific workplace (OSHA, 2015). A compliant workplace is that which has implemented all workplace specific minimum OSH compliance requirements and being awarded the compliance certificate by OSHA for the specific operational year. A non-compliant workplace is one that fails to implement any among the workplace specific minimum OSH compliance specific minimu

This study findings from key informants' responses show facilitators to implementation of the minimum OSH compliance requirements among compliant workplaces; barriers hindering implementation of the minimum OSH compliance requirements among non-compliant workplaces as well as reinforcement actions that have been administered to non-compliant workplaces to foster compliance. Results show that factors such as workplace internal factors, workers' safety practices and regulatory reinforcement actions have intersecting influence on implementation of the minimum OSH compliance requirements as both facilitators and barriers. External forces such as the workplace need to meet international marketing standards, customers' demands, procurement specifications and project/contract eligibility were mentioned as facilitating factors to implementation of minimum OSH compliance requirements to both compliant and non-compliant workplaces. To understand implementation of minimum OSH compliance requirements at workplace level; this study used four categories which are awareness of minimum OSH compliance requirements, implementation of minimum OSH compliance requirements, relevance/importance in implementing the minimum OSH compliance requirements and regulatory reinforcement actions to improve OSH compliance.

5.1 Awareness of minimum OSH compliance requirements

This category aimed at investigating how informants became aware about minimum OSH compliance requirements and how being aware of the minimum OSH compliance requirements influences OSH implementation and thus workplaces' compliance status. Awareness of a concept is an attribute to its implementation (Nigel, 2010); such that to implement OSH compliance requirements needs both employers and employees to have awareness on the OSH requirements. The findings of this study found that both compliant and non-compliant workplaces were aware of these requirements through different ways despite the fact that there exist differences in their implementation. OSHA inspection visits to workplaces, presence of safety personnel, other legal Acts like National Environmental Management Act, Mining Act and Fire rescue Act were mentioned as means through which the informants became aware of the oSH compliance requirements. In the findings; one employer was not aware of the OSH compliance requirements, did not apply for compliance certificate thus the workplace was regarded as non-compliant.

This is similar to findings in a study conducted in Taiwan which revealed that limited awareness and perception of the importance of OSH in employers and employees has been associated with inability to control occupational standards thus lead to occupational injuries. The study also stipulates that employers' awareness and perception on OSH is an important factor than in employees (Hu *et al.*, 1998).

5.2 Implementation of minimum OSH compliance requirements

This category mainly investigated how implementation of the minimum OSH compliance requirements may be influenced by various factors such as workers' safety practices, external forces, workplace internal factors and regulatory reinforcement actions. The findings of this study on this aspect were as follows;

a) Workers' factors

Among advantages of implementing OSH within the organization is to protect and promote workers' health through emphasizing on safety practices at the workplace. Workers safety is a determinant to increased quality of goods/service and productivity. This will in turn positively brand the workplaces and strengthen relationship with the government and community at large, by reducing occupational accidents, diseases and fatalities (WHO, 2002).

This study found that workers from both compliant and non-compliant workplaces had limited awareness about safety and health practice as reported by the informants who foresee safety issues in their workplaces. Limited awareness on safety issues resulted to them not finding importance in adhering to safety and health rules while at work. It was observed that workers would follow safety and health protective measures only when their supervisors are around and they do the contrary when are free. This is similar to the findings in a study on the relationship between employees' perception and implementation of OSH. In this study working experience and working environment were demonstrated as internal and external factors influencing the use of PPEs among workers (Wahyuni, 2018). Despite the good number of those responding positively to PPE use as part of OSH implementation and management emphasis on OSH implementation, some employees were still noted to have low use of PPEs as part of OSH implementation. This result was affiliated with the employees' lack of awareness on self-protection, poor thinking about selfprotection, and lethargy in the application of OSH at workplace level thus leading to negative notions towards implementation of OSH standards at individual level (Wahyuni, 2018).

Putting priority in meeting production/service delivery deadlines was also mentioned where workers find it more valuable in meeting production targets thus forsaking their safety and health protective measures. One respondent mentioned that workers in his workplace were keen to meeting their set key performance indicators and forget about safety and health protection as they work. This is similar to study done by Jason Gray and Z. Sadiqi in 2015 which revealed that in order to meet project deadlines employees worked under pressure such that they end up forsaking their safety and health as they concentrate on meeting the targets.

b) Internal Factors

Workplace internal factors may affect implementation of OSH requirements; internal arrangements have to incorporate OSH functionalities and work hand in hand to

achieve the primary objectives of fostering workplace safety. OSHA general administrative rules (2015) stipulate that workplace is at minimum, required to have its own safety and health policy statement stipulating workplace specific safety and health standard practices.

Workplace economic status was mentioned as an internal arrangement that has direct implication to OSH implementation. Most of the informants both compliant and noncompliant explained that it is expensive to implement the OSH compliance requirement. To fulfil all OSH requirements requires the workplace to have economic stability; some went further and explained when their workplaces are in financial crisis they end up not implementing the OSH requirements. These findings are synonymous to the ones in an analysis done by ESENER where cost was identified as another factor influential to implementation of OSH goals and legislative compliance. The analysis observed that among the studied countries, those which experienced severe economic crisis had more challenges in meeting the OSH management goals as compared to those with minimal economic crisis effects (Walters, Wadsworth and Quinlan, 2012).

Workplace management commitment to workplace safety and health was put forward as an important factor in OSH implementation. An informer reported that her workplace at one point did not get OSH compliance certificate because despite the fact that the management was aware that fitness to work medical check-up is for all workers; they opted to sample from employees to undergo fitness to work medical check-up. This is in support to a study done in Brazil where management was also considered as a barrier in the implementation of OSH for the poor resource allocation for OSH related issues such as lack of technical and financial resources, difficulty in obtaining authorizations, reduced company consistence and flexibility, management lacking knowledge about OSH and little or inadequate OSH policy at their companies (Garnica and Barriga, 2018).

This study also identified that workplace nature of operations and size has influence on implementation of OSH requirements. From the field quotes, one of the compliant informants reported that the more hazardous the operations are the higher the need for health and safety protection. The findings tally with the ESENER analysis findings which revealed similar results that industry nature (size, processes and past economic history) has significant association with OSH management. The analysis indicators showed that OSH management is highly considered in industries such as mining, construction, health and social work in contrary to public administration and real estate firms (Walters, Wadsworth and Quinlan, 2012).

c) External factors

External factors are those which are not within workplace capacity to control. A workplace is rather required to abide to them depending on the demand. Literature explains the need to comply with local regulations and international standards, customer needs and market demands, workplace reputation as external factors influencing OSH implementation.

The need for the workplace services or products to meet the international standards e.g. ISO, NASA and GAO also compelled the workplaces to initially have local OSH compliance as explained by some informers in this study. It was revealed that in order to use particular international brand/trademark OSH compliance was among the criteria considered. The above findings are in support to a study by Luji in 2015 which was of the view that the success in multinational successful enterprises has been linked with integration of health, safety and environment aspects in their overall management systems. To maintain competitiveness on well-regulated markets and globalization demands; implementation of holistic integration of health, safety and environmental issues at enterprise level must be considered (WHO, 2002).

Customer and marketing demands was mentioned by informants in this study to be among the factors influencing implementation of OSH. It was conditioned that for a workplace to be contracted in projects, OSH compliance certificate was among the criteria for being awarded tender approval or project grants. Similar findings were demonstrated in a study on OSH in Marketing and procurement that came up with the conclusion that the general market system demands the goods and equipment to have certification scheme and labels which base on the applied OSH standards in order to meet the identified safety and needs pertaining to the specific goods (European Agency for Safety and Health at Work, 2000). Similar observation was noted in the case of contractors and management in service sector; thus promoting the application of OSH standards in the certification and labelling to ensure products quality and purchasers' satisfaction (European Agency for Safety and Health at Work, 2000).

The findings of this study show that procurement procedures have influence in implementation of OSH at workplace. It was put forward by an informant that they

would not hire subcontractors if they do not comply with OSH. Similar findings were found in a study in the construction business which is viewed as the most hazardous nature of work. The client companies when considering of outsourcing labour from their specified contractors; among other requirements they are demanded to have their manpower trained on the application of OSH standards so as to reduce the excessive injuries and harm while executing their duties an aspect that has been proven successful in its application. The case was applied in the procurement of goods and products where the client puts it clear of OSH needs early in the tender stage of procurement (European Agency for Safety and Health at Work, 2000).

5.3 Regulatory/ reinforcement actions

Findings in this study show that OSHA reinforcement to non-compliant workplaces is weak accounting for the big gap between compliant and non-compliant workplace status. One of the informants was of the view that many workplaces do not comply with OSH because they know there is weak enforcement. The above findings on regulatory reinforcement actions are contrary to a study done in Australia which stipulated that implementation of OSH regulatory practice should be evidence-based and aligned to legal mandates; this is crucial to ensure the health and safety of workers and others are highly protected from work related disease, injuries and deaths. Different ways of administering these OSH regulations may result to various outcomes related to the different approaches. This can be seen in the case of Australia where the Workplace Health and Safety Queensland (WHSQ) applying multiple regulatory approaches which have proved improvement in creating sustainable means of managing workplace risks to accidents, diseases and deaths. The regulatory approaches applied by the body include risk-based management of workers' health and safety and any breaches against the regulations calls for the immediate regulatory body response, this is achieved through inspections and notice provision for noncompliance (Safe Work Australia, 2008).

Another finding from informants in this study was the fact there is poor monitoring system of the implementation of the OSH compliance requirements from the regulatory authority. Contrary to the findings above, a study on measuring operational performance of OSH Management Systems showed that there is insufficient evidence for the systems effectiveness in terms of prevention and reduction of accidents at work and occupational diseases. OSH Management systems must adopt suitable tools and methods of implementation to demonstrate their effectiveness (Podgórski, 2015).

Different regulatory/reinforcement actions have been administered to different noncompliance scenarios concerning implementation of OSH requirements. Literature explains of the punitive, mutual agreement between the regulator and the regulated, and laissez faire as regulation/reinforcement styles. This is supported by Socio-legal scholars who posit that compliance is a term used in understanding regulatory effectiveness which can be defined in two ways; one is "enforcement strategies which may be accommodative or punitive used by agencies to secure regulatory compliance" (Amodu, 2008). Each type has its implications on the implementation of OSH requirements. Literature also stipulates that there is no single regulatory/reinforcement action that suits perfectly for all workplaces to improve OSH compliance (Amodu, 2008). Findings in this study show that, of the interviewed compliant informants, all explained to abide with OSH regulations by more than 70 percent and some rated themselves at 100% in OSH implementation. This finding is in support of the study whereby compliance is said to be a sufficiently impressionable term with a series of activities and aspects of regulation such as the act of enforcement of the law, the process of securing the fundamental aims and objectives of regulations and the arbitration of regulatory outcomes. In this context; the regulatory side consider legal compliance in aspects such as compliance behaviour interpretation by defining unclear responses at policy and field levels, recognizing violations and remedying the related problems; motivation and identification of drivers to compliance whereby these features may be used to assess enhancers to compliance and law enforcement (Amodu, 2008).

OSHA administers regulation reinforcement through provision of ILO OSH adopted guidelines and standards to be implemented at enterprise and national level. Among OSHA regulatory responsibility is to register a workplace and do safety inspections with regard to workplace hazard profile. OSHA also provides a number OSH and related trainings to various audiences to foster adaptability of OSH aspects in different level. Through mutual agreement with her clients; OSHA would give the necessary OSH advice and guidance to a workplace, provide grace period for improvement of a risky situation. When all these fails, results reveal that OSHA may apply reinforcement actions such as improvement notices, penalties, sanctions and where necessary would issue prohibition notice to cease operations until when the risky situation is rectified. Sometimes legal actions such as filing of cases to the High court are applied depending on the type and degree of the offence committed by a workplace (OSHA, 2003). However, from regulatory or reinforcement actions point of view, the findings in this study show there is need for OSHA to improve reinforcement of her regulations in order to increase workplaces' implementation of compliance requirements as stipulated in Act No.5 of 2003. It was reported that other workplaces non-compliance is because OSHA has not been so strict in making sure all workplaces comply with the legal mandates.

In this study, informants also recommended for OSHA to increase coverage and awareness of the services being offered within the country. OSHA is also urged to collaborate with other stakeholders to foster ownership in the OSH concept at all levels. Some other issues called for change were reduction in charges for OSHA services, training modalities change by upgrading its course contents rather than similar courses being offered yearly to sometimes the same candidates. Also, time lag within compliance procedure from inspection to compliance certificate issuance was reported. The above findings in this study have similar findings from a study in management of legal compliance in health and safety. The study based on assessing how compliance with legislation, regulation and standards influences health and safety management in different companies. The study discussed successful strategies as well as main difficulties that companies face in implementation of OSH. Effectiveness of the regulatory system, knowledge and understanding of the legislature, economic position, human and material resources have been mentioned to influence OSH compliance process (Salguero-Caparrós *et al.*, 2020).

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Workplace internal factors such as employers and employees awareness on OSH regulation and requirements, financial stability, nature of operations, management commitment to safety and health have positive influence in the implementation of OSH requirements. The need to meet local and international marketing standards, project/contract eligibility, customers' demands, good community and government reputation and procurement specifications are external forces behind compliance to OSH standards. Reinforcement actions both accommodative and punitive have rendered some workplaces find it relevant to comply with OSH standards.

Workplace financial instability, poor management engagement and commitment to workplace safety and health issues, limited OSH awareness to both employers and employees are barriers identified in workplace level. Need to meet project/production targets, working under pressure and negligence resulted from limited awareness on importance of OSH are barriers to implementation of OSH requirements emanating from workers. Weakness in enforcement of OSH Act 5 of 2003 is another barrier thus very low OSH compliance status in the country. Other barriers include financial implications due to overlapping of legal mandates from multiple government agencies, low OSH services coverage and bureaucratic compliance process.

Workplace non-compliance with OSH standards is breaching of the law against statutory mandates calling for enforcement. OSHA applies both accommodative such as OSH education and improvement notice as well as punitive measures such as penalties, compounding, prohibitions and legal suits to enforce OSH compliance. Despite administration of all these enforcement actions; there still exist high rates of non-compliance with OSH standards among both registered and non-registered workplaces.

6.2.1 Recommendations for workplaces

- i Employers and employees at workplaces need to understand the essence of OSH compliance, embrace the concept and its importance, and then adjust their systems to ensure compliance with OSH requirements.
- ii There should be regular trainings to workplace management and workers on importance and relevance of OSH issues at workplace level
- iii Workplace and workers safety and health should come first before workplace profit and production demands.
- iv Employers should partner with OSHA in safety and health promotion.
- v Workplace owners should develop systems that monitor implementation and effectiveness of the OSH implementation at their workplace level.

6.2.2 Recommendations for OSHA

- i OSHA should apply both prescriptive and proactive principles. The regulatory authority should make sure the stakeholders at all levels are aware about the legislation, regulation and standards.
- ii The compliance process; registration, inspection and application of compliance certificates should be thoroughly understood by employers and issuing done amicably with minimum bureaucracy.
- iii OSHA should develop means to recognise and give merits/privilege to workplaces that have consistently complied with OSH standards to foster compliance
- iv OSHA should develop proper strategies to address issues leading to non-compliance among inspected workplaces. All workplaces must be registered with OSHA and comply with OSH compliance regulations to promote workplace safety and health.
- v OSHA should develop systems that monitor implementation and effectiveness of the OSH implementation internally and from workplace level.

6.2.3 Recommendations for further studies

The researcher recommends a study to be conducted on assessment of implementation of the minimum OSH compliance requirements among central government institutes and agencies.

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APPENDICES

Appendix I: Compliant Workplace In-Depth Interview Guide

WORKPLACE NAME:

QUESTION	PROBES		
1. What do you know about minimum OSH compliance requirements?	 How did you come to know about the OSH regulations Explain what you know of the OSH compliance requirements 		
2. What are your views on being compliant with OSH requirements?	 Ask about the legal requirement What are your thoughts on adhering to this legal requirement? 		
3. How is OSH compliance relevant to your workplace	• How appropriate is it for your workplace to comply with OSH requirements		
4. How is the OSH compliance requirements implemented in your workplace?	• How do you go about ensuring OSH compliance in your workplace?		
5. Give your opinions on the implementation of OSH compliance requirements	• How is it easy or difficult for your workplace to implement the OSH compliance requirements		
6. Explain about factors that facilitate your workplace to comply with OSH requirements	• What exactly are the forces making your workplace finding relevancy in complying with OSH requirements?		
7. Suggest if there is any need for review of the OSH compliance requirements for improvement to suit your type of workplace	• What should be improved by the reinforcing authority so as other workplaces can find relevancy in complying with OSH requirements		

Data is complete and			Date
accurate	Name	Signature	(dd/mm/yyyy)
Enumerator			/2021
Supervisor			/2021

Appendix II: Muongozo wa Mahojiano

MAHALI PA KAZI PALIPOTII NA KUTEKELEZA VIGEZO VYA ITHIBATI YA USALAMA NA AFYA MAHALI PA KAZI

SWA	LI	UCHUNGUZI
1.	Unafahamu nini kuhusu vigezo vya ithibati ya usalama na afya mahali pa kazi?	 Ulifahamu vipi sheria ya usalama na afya mahali pa kazi? Elezea vigezo vya ithibati ya usalama na afya mahali pa kazi unavyovifahamu
2.	Nini mtazamo wako kuhusu dhana ya ukidhi wa vigezo vya ithibati ya usalama na afya mahali pa kazi?	 Elezea matakwa ya sheria ua usalama na afya mahali pa kazi Unafikiriaje kuhusu utekelezaji wa matakwa ya sheria ya afya na usalama na afya mahali pa kazi?
3.	Kuna umuhimu gani wa kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi?	 Elezea manufaa ya kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi
4.	Vigezo vya ithibati ya usalama na afya vinatekelezwaje katika eneo lako la kazi?	 Elezea namna unavyotekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi
5.	Nini maoni yako kuhusu namna ya utekelezwaji wa vigezo vya ithibati ya usalama na afya mahali pa kazi	 Ni rahisi au vigumu kiasi gani kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi?
6.	Nini haswa kinasababisha eneo lako la kazi kutii na kutekeleza	• Elezea mambo yanayopelekea eneo lako la kazi kutambua

vigezo vya ithibati ya usalama	umuhimu wa kutii na kutekeleza
na afya mahali pa kazi	vigezo vya ithibati ya usalam na afya mahali pa kazi
7. Una maoni gani kuhusu	• Nini kiboreshwe ili maeneo
uboreshwaji wa vigezo vya	mengine ya kazi yanayofanana na
ithibati ya usalama na afya	eneo lako la kazi yaweze kutii na
mahali pa kazi kwa kuzingatia	kutekeleza vigezo vya ithibati ya
aina ya eneo lako la kazi	usalama na afya mahali pa kazi

WORKPLACE NAME:

QUESTION	PROBES
1. What do you know about minimum OSH compliance requirements?	 How did you come to know about the OSH regulations Explain what you know of the OSH compliance requirements
2. What are your views on being compliant with OSH requirements?	 Ask about the legal requirement What are your thoughts on adhering to this legal requirement?
3. How is OSH compliance relevant to your workplace?	 How appropriate is it for your workplace to comply with OSH requirements?
4. How do you implement the OSH requirements in your workplace?	 How do you go about ensuring OSH compliance in your workplace?
5. Give your opinions on the implementation of OSH compliance requirements	• How is it easy or difficult for your workplace to implement the OSH compliance requirements
6. Is there any of the minimum compliance requirements that your workplace managed to comply with?	 What factors made it possible to comply with those requirements? Which factors out of the ones you mentioned do you think can be used to comply with the remaining requirements?
7. Describe the barriers hindering your workplace from complying with OSH requirements	Explain the challenges you meet while implementing OSH requirements making it difficult for your workplace to comply with them
8. Explain about the reinforcement measures administered to your workplace for non-compliance with OSH requirements	 Tell if your workplace has been reinforced for non-compliance What type of reinforcement was administered How frequent was it done (time since the inspection and time in between the reinforcement) Explain if the enforcement

	anyhow made your workplace realise the relevancy in complying with OSH requirements?
9. Suggest if there is any need for review of the OSH compliance requirements for improvement	• What should be improved by the authority so as your workplace
to suit your type of workplace	can find relevancy to complying with OSH requirements

Data is complete and			Date
accurate	Name	Signature	(dd/mm/yyyy)
Enumerator			/2021
Supervisor			/2021

Appendix IV: Muongozo wa mahojiano

MAHALI PA KAZI PASIPOTII NA KUTEKELEZA VIGEZO VYA ITHIBATI YA USALAMA NA AFYA MAHALI PA KAZI

SWALI	UCHUNGUZI			
1. Unafahamu nini kuhusu vigezo vya ithibati ya usalama na afya mahali pa kazi?	 Ulifahamu vipi sheria ya usalama na afya mahali pa kazi? Elezea vigezo vya ithibati ya usalama na afya mahali pa kazi unavyovifahamu 			
2. Nini mtazamo wako kuhusu dhana ya ukidhi wa vigezo vya ithibati ya usalama na afya mahali pa kazi?	 Elezea matakwa ya sheria ya usalama na afya mahali pa kazi Unafikiriaje kuhusu utekelezaji wa matakwa ya sheria ya afya na usalama na afya mahali pa kazi? 			
3. Kuna umuhimu gani wa kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi?	 Elezea manufaa ya kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi 			
4. Vigezo vya ithibati ya usalama na afya vinatekelezwaje katika eneo lako la kazi?	Elezea namna unavyotekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi			
5. Nini maoni yako kuhusu namna ya utekelezwaji wa vigezo vya ithibati ya usalama na afya mahali pa kazi	 Ni rahisi au vigumu kiasi gani kutekeleza vigezo vya ithibati ya usalama na afya katika eneo lako la kazi? 			
6. Ni vigezo gani vya ithibati ya	• Visababishi vipi vilifanikisha			

JINA LA SEHEMU YA KAZI.....

usalama na afya mahali pa kazi vilivyotekelezwa katika eneo lako la kazi	utekelezwaji wa vigezo hivyo vya ithibati ya usalama na afya mahali pa kazi? • Visababishi vipi katika ulivyotaja hapo awali unafikiri vinawezesha kutimiza vigezo vya ithibati ya usalama na afya mahali pa kazi ambavyo havijatekelezwa?
7. Elezea kuhusu vikwazo vinavyokwamisha utekelezwaji wa vigezo vya ithibati ya usalama na afya mahali pa kazi katika eneo lako la kazi	 Changamoto zipi zinazoleta ugumu katika utekelezaji wa vigezo vya ithibati ya usalama na afya mahali pa kazi katika eneo lako la kazi
8. Eleza hatua za uimarisho zilizochukuliwa dhidi ya eneo lako la kazi kwa kutotekeleza vigezo vya ithibati ya usalama na afya mahali pa kazi	 Eleza endapo eneo lako la kazi limewahi kuchukuliwa hatua za uimarisho kwa kutotekeleza vigezo vya ithibati ya usalama na afya mahali pa kazi Hatua zipi za uimarisho zilizochukuliwa kwa eneo lako la kazi kwa kutotekeleza vigezo vya ithibati ya usalama na afya mahali pa kazi Ni mara ngapi eneo lako la kazi limechukuliwa hatua za uimarisho (tangu kufanyika kwa kaguzi za usalama na afya kati ya miaka ya
9. Una maoni gani kuhusu	2018 na 2020)Nini kiboreshwe ili maeneo

uboreshwaji wa vigezo vya	mengine ya kazi yanayofanana na
ithibati ya usalama na afya	eneo lako la kazi yaweze kutii na
mahali pa kazi kwa kuzingatia	kutekeleza vigezo vya ithibati ya
aina ya eneo lako la kazi	usalama na afya mahali pa kazi
•	5 1

Data is complete and			Date
accurate	Name	Signature	(dd/mm/yyyy)
Enumerator			//2021
Supervisor			/2021

Appendix V: Compliance Checklist (for observation)

WORKPLACE NAME.....

OSH REQUIREMENT	IMPLEMENTATION STATUS	VERIFICATION
		VERIFICATION
GENERAL INSPECTION		
GENERAL INSI LE HON		
HYGIENE INSPECTION		
ERGONOMIC INSPECTION		
MEDICAL SURVEILLANCE		
ELECTRICAL INSPECTION		
PLANT INSPECTION (if applicable)		
OSH POLICY		
RISK ASSESSMENT		
SHE REPS AND COMMITTEE		
SHE KEPS AND COMMITTEE		
FIRST AID AND TRAINED AIDERS		
FINDI AID AND TRAINED AIDERS		
ACTION PLAN		
PPE PROVISION AND USE (if		
applicable)		

Data is complete and			Date
accurate	Name	Signature	(dd/mm/yyyy)
Enumerator			/2021
Supervisor			/2021

Appendix VII: Informed Consent Form

Muhimbili University of Health and Allied Sciences- Directorate of Research and Publications

Consent to participate in the study titled: Factors influencing implementation of Occupational Safety and Health Compliance requirements among inspected workplaces. A case of workplaces that were inspected between 2018 and 2020 in Kinondoni Municipal

Participant Number -----

Introduction

Dear Participant,

I would like to thank you for your time and your readiness to be part of this study.

My name is Amina Shilla, medical inspector for OSHA Coast Zone whose offices are located at Kinondoni-Kambangwa Street. I am a second year postgraduate student in the school of public health and social sciences at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing a Master's degree in Project Management Monitoring and Evaluation in Health. I am the principal investigator in this study. This consent form may contain words that you are not conversant with. Do not hesitate to stop me and ask for explanation in areas not clear to you as we go through the information.

Purpose of the study

To evaluate the implementation process of Occupational Safety and Health compliance requirements in Kinondoni Municipality and identify its facilitators and barriers.

Participation requirement

Upon your agreement for participation in this study, the information you will give will be used for research purpose only. You will not be implicated and your responses will not be connected with your personal identity.

Confidentiality

The information collected shall be entered into computer with only a designated identification number; without your personal particulars.

Risk

No harm is expected to happen to you during the course of this interview.

Right to withdrawal

It is upon your voluntary will to participate in this study; refusal to participate or withdraw from this study is accepted, respected and will not have any punitive outcomes to you as a participant.

Benefits

The findings from this study will provide valuable information on better ways of implementation OR constructive information on improving the implementation of Occupational Safety and Health Compliance requirements in Tanzania. Your participation is very crucial in making the improvements in country's OSH compliance a reality and informing the decision making process.

Approval

This study has successfully sought approval from relevant and informed authorities.

Who to contact

In case of any queries regarding this study, please feel free to contact me Amina Shilla the Principal investigator, MUHAS, P.O BOX 65001, Dar-es-salaam, Tanzania.

Mobile phone number 07173737542. E-mail: <u>mashedrik@gmail.com</u>. Or you may contact Dr. Gloria Sakwari, Supervisor to this study, MUHAS, P.O Box 65000, Dar es salaam, Tanzania.

Mobile phone: 0767591202, E-mail: gsakwari@gmail.com

If you have any questions concerning your right as a participant, you may contact **Dr.Bruno Sungunya**, Chairperson of Research and Publication of MUHAS, contacts P. o. Box 65001, Dar es Salaam, Tanzania. Tel: +255-022-2152489, Fax +255-022-2152489, Email drp.muhas.ac.tz.

N.B: A copy of this consent form will be given to you to keep.

Consent: I have read and understood the consent form and my question have been answered and I agree to participate in this study.

Signature of Participant	Date
Phone number	
Signature of Investigator	Date

Appendix VIII: Fomu ya Ridhaa

Chuo Kikuu cha Afya na Sayansi cha Muhimbili- Kurugenzi ya Utafiti na Machapisho

Fomu ya kukubali kushiriki katika utafiti uliopewa jina la: Tathmini ya visababishi vinavyoathiri utekelezwaji wa vigezo vya usalama na afya mahali pa kazi: Kesi ya sehemu za kazi zilizokaguliwa kati ya mwaka 2018 na 2020 ndani ya Manispaa ya Kinondoni jijini Dar es salaam, Tanzania

Namba ya utambulisho wa mshiriki -----

Utangulizi

Ndugu Mshiriki,

Salamu! Natanguliza shukurani zangu za dhati kwa muda na kukubali kwako kuwa sehemu ya utafiti huu leo.

Mimi ninatambulika kwa jina la Amina Shilla, nafanya kazi kama Mkaguzi wa Afya katika Wakala wa Usalama na Afya mahali pa kazi. Pia ni mwanafunzi wa mwaka wa pili katika shule ya afya ya umma na sayansi ya kijamii katika Chuo Kikuu cha Afya na Sayansi cha Muhimbili (MUHAS) nikisoma masomo ya shahada ya uzamili katika Usimamizi wa Mradi na Tathmini ya maswala ya Afya. Mimi ni mtafiti mkuu katika utafiti huu. Maelezo katika fomu hii ya idhini yanaweza kuwa hayaeleweki kwako. Tafadhali naomba usisite kuniuliza wakati wowote kuhusu chochote usichokielewa na nitachukua muda kukuelewesha.

Kusudi la utafiti

Kutathmini visababishi vinavyoathiri utekelezwaji wa vigezo vya usalama na afya mahali pa kazi katika Manispaa ya Kinondoni na kutambua viwezeshaji na vizuizi vyake.

Ushiriki.

Endapo unakubali kushiriki katika utafiti huu, maelezo utayoyatoa yatatumika kwa madhumuni ya utafiti tu na hayatahusishwa na taarifa zako binafsi moja kwa moja. Usiri Taarifa zote zitazokusanywa zitaingizwa kwenye kompyuta na nambari ya utambulisho iliyoandaliwa tu, Hatutatumia jina lako.

Hatari

Tunatarajia hakutakuwa na madhara yatakayotokea kwako wakati wa utafiti huu.

Haki ya kujiondoa

Kushiriki katika utafiti huu ni kwa hiari yako mwenyewe na una haki ya kukataa kushiriki au kujiondoa ambapo hakutahusisha adhabu au upotezwaji wa faida yoyote ambayo umestahili.

Faida

Matokeo ya utafiti huu yatatoa habari muhimu juu ya namna bora za utekelezaji wa vigezo vya usalama na afya mahali pa kazi na kuinua hali ya utekelezaji wa vigezo hivyo nchini Tanzania. Ushiriki wako ni wa muhimu katika kufanikisha dhana hii ya usalama na afya mahali pa kazi.

Ruhusa

Utafiti huu unafanyika kwa idhini ya mamlaka sahihi zinazohusika na kutoa dhamana ya utafti.

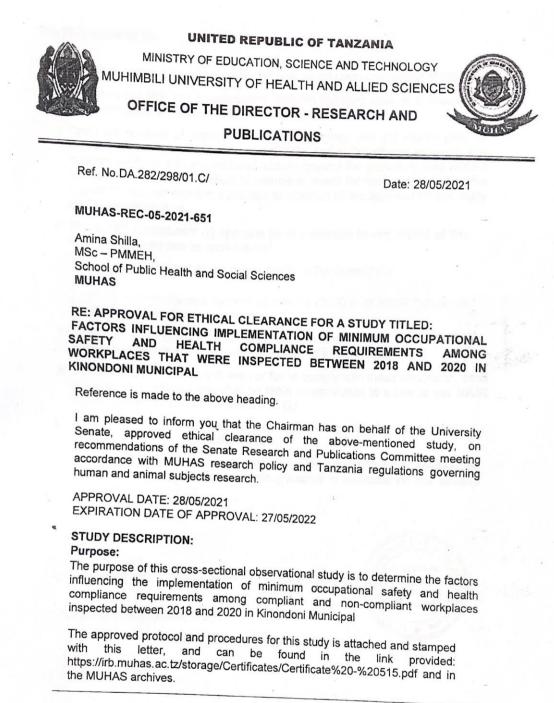
Mawasiliano

Ikiwa una swali lolote kuhusu utafiti huu, tafadhali kuwa huru kuwasiliana nami Amina Shilla Mtafiti Mkuu, MUHAS, P.O BOX 65001, Dar-es-salaam, Tanzania. Simu ya mkononi 0717377542. Barua pepe: mashedrik@gmail.com. Au unaweza kuwasiliana na Dk. Gloria Sakwari, Msimamizi wa utafiti huu, MUHAS, PO Box 65000, Dar es salaam, Tanzania. Simu ya mkononi: 0767591202, Barua pepe: gsakwari@gmail.com

Ikiwa una maswali yoyote kuhusu haki yako kama mshiriki, unaweza kuwasiliana na Dr.Bruno Sungunya, Mwenyekiti wa Utafiti na Uchapishaji wa MUHAS, mawasiliano P. o. Box 65001, Dar es Salaam, Tanzania. Simu: + 255-022-2152489, Faksi + 255-022-2152489, Barua pepe drp.muhas.ac.tz.

N.B: Nakala ya Fomu hii utapatiwa kwa ajili ya kumbukumbu

Neno la ridhaa: Mimi.....nimesoma na kuelewa vizuri fomu hii ya ridhaa na nitajibu maswali kwa ufasaha na uelewa wangu binafsi, ninakubali kushiriki katika utafiti huu nikiwa nimeelewa vizuri na mwenye akili timamu. Sahihi ya Mshiriki.....Tarehe...... Nambari ya Simu ya mkononi..... Sahihi ya Mtafiti.....Tarehe..... **Appendix IX: Ethical Clearance**



The PI is required to:

- 1. Submit bi-annual progress reports and final report upon completion of the study.
- Report to the IRB any unanticipated problem involving risks to subjects or others including adverse events where applicable.
- 3. Apply for renewal of approval of ethical clearance one (1) month prior its expiration if the study is not completed at the end of this ethical approval. You may not continue with any research activity beyond the expiration date without the approval of the IRB. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.
- 4. Obtain IRB amendment (s) approval for any changes to any aspect of this study before they can be implemented.
- 5. Data security is ultimately the responsibility of the investigator.
- Apply for and obtain data transfer agreement (DTA) from NIMR if data will be transferred to a foreign country.
- 7. Apply for and obtain material transfer agreement (MTA) from NIMR, if research materials (samples) will be shipped to a foreign country,
- 8. Any researcher, who contravenes or fail to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine as per NIMR Act No. 23 of 1979, PART III section 10 (2)
- 9. The PI is required to ensure that the findings of the study are disseminated to relevant stake holders.
- PI is required to be versed with necessary laws and regulatory policies that govern research in Tanzania. Some guidance is available on our website https://drp.muhas.ac.tz/.

Dr. Bruno Sunguya Chairman, MUHAS Research and Ethics Committee

Cc: Director of Postgraduate Studies



9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1038; Direct Line:+255-22-2152489;Telefax:+255-22-2152489;E-mail:drp@muhas.ac.tz;Web:<u>https://www.muhas.ac.tz</u> **Appendix X: Introduction Letter**

UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

OFFICE OF THE DIRECTOR – POSTGRADUATE

STUDIES



Ref. No. HD/MUH/T.743/2019

7th June, 2021

CHIEF EXECUTIVE OFFICER, OCCUPATIONAL HEALTH AND SAFETY AUTHORITY, P.O BOX 519, **DSM-TANZANIA.**

Re: INTRODUCTION LETTER

The bearer of this letter is Amina Shilla (HD/MUH/T.743/2019), a student at Muhimbili University of Health and Allied Sciences (MUHAS) pursuing MSc. Project Management Monitoring and Evaluation In Health.

As part of her studies she intends to do a study titled: "FACTORS INFLUENCING IMPLEMENTATION OF MINIMUM OCCUPATIONAL SAFETY AND HEALTH COMPLIANCE REQUIREMENTS AMONG WORKPLACES THAT WERE INSPECTED BETWEEN 2018 AND 2020 IN KINONDONI MUNICIPAL".

The research has been approved by the Chairman of University Senate.

Kindly provide her with the necessary assistance to facilitate the conduct of her research.

We thank you for your cooperation.

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130.

<u>Ms. Kictoria Mwanilwa</u> For: DIRECTOR, POSTGRADUATE STUDIES

cc: Dean, School of Public Health and Social Sciences, MUHAS cc: Amina Shiffa

9 United Nations Road; Upanga West; P.O. Box 65001, Dar Es Salaam: Tel. G/Line: +255-22-2150302/6; Ext. 1015; Direct Line:+255-22-2151378;Telefax:+255-22-2150465;E-mail:dpgs@muhas.ac.tz;Web:<u>https://www.muhas.ac.tz</u> Appendix XI: Permission Letter



JAMHURI YA MUUNGANO WA TANZANIA OFISI YA WAZIRI MKUU KAZI, VIJANA, AJIRA NA WENYE ULEMAVU



MAMLAKA YA USALAMA NA AFYA MAHALI PA KAZI

Unapojibu tadhalitaja:-Kumb.NaOSHA/PF/264/7

08 Juni, 2021

KWA YEYOTE ANAYEHUSIKA.

YAH: KUMTAMBULISHA MTUMISHI AMINA SHILLA NANGU

Husika na somo tajwa hapo juu.

2. Mtajwa hapo juu ni mwajiriwa wa kudumu wa Wakala wa Usalama na Afya Mahali pa Kazi (OSHA) iliyo chini ya Ofisi ya Waziri Mkuu, Kazi, Vijana, Ajira na Wenye Ulemavu, mwenye Kitambulisho namba LE & YD 094 akifanya kazi kwa nafasi ya Mkaguzi wa Afya,

3. Aidha mtumishi huyu ni mwanafunzi wa Chuo cha Sayansi za Tiba **MUHAS**, hivyo naiomba ofisi yako iweze kumruhusu mtumishi huyu aweze kupewa ushirikiano wa kupata taarifa (data) za kiutafiti kutoka kwenye eneo lako la kazi (work place).

Natanguliza shukrani kwa ushirikiano wako

COCUPATIONAL SAFETY AND HEALTH AUTHORIT Paul Kny: MTENDA

Kinondoni Manyanya | Mahakama Road, P.O.BOx 519, Dar es salaam | Tel +255(0) 222 2760548, Fax +255 (0) 22 2760552 | Email: info@osha.go.tz | Website: www.osha.go.tz