

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Organizational productivity is generally seen as a measure of the amount of output generated per unit of input. In many countries, public sector productivity has been assumed to be zero in the national accounts (Yankson, 2012). An organization made up of employees often rely on the productiveness of the individual employees which determine the success and ultimate survival of the organization (Schaufeli, Ouweneel, & Le Blanc, 2013). Additionally, the workplace environment's quality has an impact on employee motivation and organizational performance. Employee engagement with the organization, particularly with their immediate environment, has a significant impact on their error rate, level of innovation, and interaction with other employees, as well as absenteeism and, ultimately, the number of years they stay on the job (Yankson , 2012). Improving organization productivity and occupational health and safety (OSH) have been an important field of interest of industry especially in developing countries (Ramazan, Arzu, Meral, & Ismail , 2016). Pagell et al. (2013) claimed that, in addition to cost, quality, flexibility, delivery, and innovation, safety should be a top operational concern. Additionally, safety should not be a priority for a few large corporations, but rather be a requirement of governments and the majority of citizens as a fundamental human right. As a result, workplace safety is a critical national and international concern, and OHS cannot be relegated solely to safety departments; it must become a shared duty for the entire organization (Ramazan, Arzu, Meral, & Ismail , 2016).

Health and safety practices is an act of protecting employees and other people associated with an organisation against hazards arising from employment, contract or links with the company. Occupational health and safety management is concerned with protecting employees and other

people affected by an organization's activities, products and services against hazards. Occupational health and safety management also entails the control of hazards in the work place to achieve an acceptable level of exposure to risk (Aluko, Adebayo, Adebisi, Ewegbemi, & Popoola, 2016). The responsibility of every organization is to ensure occupational health and safety procedures are strictly followed. However, some organizations especially those in the private sectors and in developing countries like Nigeria still aim at maintaining or increasing productivity and profitability at the expense of their employee's occupational health and safety (Olive, 2019).

Occupational health and safety is an important issue because of high rates of morbidity and mortality of exposed workers associated with lack of proper OHS procedure. An estimated 100,000 people die from preventable occupational related illnesses, while about 400,000 new cases of occupational diseases are diagnosed every year (Bell, et al., 2013). According to the International Labor Organization (2012), 6,300 people die each day as a result of occupational accidents or work-related diseases - more than 2.3 million deaths per year. Additionally, 317 million accidents occur on the job each year, with many of these accidents resulting in extended absences from work. This type of situation has a detrimental effect on an organization's productivity, and the economic cost of bad occupational health and safety management procedures is estimated to be 4% of global GDP each year (Iheanacho & Ebitu, 2016).

Since the beginning of human activity, the issue of health and safety has persisted. The realization that work is hazardous to one's life, safety, and health was emphasized during Europe's industrial revolution in the eighteenth and nineteenth centuries. (Greepherson, 2013)

The scope of occupational safety and health (OSH) has increasingly expanded beyond diseases and injuries linked with work to include the nature of labor, the broader work environment, and worker well-being. OSH is subdivided into a number of specializations based on specific problems

and applications in physiology, psychology, sociology, ergonomics, medicine, hygiene, occupational safety, toxicology, and epidemiology, to name a few. (Elgstrand & Petersson, 2010)

It is common in developing countries like Nigeria to see employers and employees neglecting the prominence and significance of occupational health and safety and this ultimately affects the employees in the work place. This also results in the employees working under extreme and unpleasant working conditions which ultimately have effects on the employees' productivity and at large the productivity of the organisation (Olive, 2019).

Lehtinen (2011) argued that health and safe working conditions improve productivity and will thus, help developing countries become competitive in the globalized world economy and that is why many organisations are making efforts to ensure that health and safety is managed at the work place effectively. In Nigeria, labor costs are a significant factor in product creation and service delivery. Because the majority of businesses strive to increase production with limited resources such as capital, labor, and equipment, workplace health and safety raises the economic cost question. Effective health and safety policies can improve the performance of employees and the organisation, by reducing costs associated with accidents, disabilities, absenteeism, or illness (Yankson , 2012).

As health and safety regulations are critical in reducing workplace accidents and diseases, they rely on employer and employee cooperation to establish a "self-generating effort" between those who produce the hazards and those who work with them (Robbins, 2014). Therefore, it is critical for businesses to take every employee complaint seriously and to ensure that employees feel safe and healthy. As previously said, a healthy and safe work environment should contribute to cost savings and organizational effectiveness. Therefore, this study is conducted to investigate “the

influence of Occupational Health and Safety on Organizational productivity in Graceco Nigeria Limited- Lagos”

1.2 Statement of Problem

Every business is legally obligated to ensure the safety of its employees and other individuals who are impacted by the organization's operations, such as customers and suppliers. Inadequate occupational health and safety measures result in disease, accidents, and major company costs. Human capital is one of the most adaptable resources on which an organization may rely for output. As a result, an organization's total efficacy and efficiency will be enhanced through effective and efficient human resource management. While many organizations recognize human capital as a valuable resource, many fails to recognize that as part of their human resource management processes, management must guarantee that employees work in a safe and healthy environment that promotes their optimal utilization.

Failure to implement health and safety practices correctly in many organizations has resulted in frequent accidents, creating an unhealthy work environment for employees. It should be highlighted that accidents are costly for both the employee and the employer. As a result, management and employees should make every effort to prevent occupational accidents.

Manufacturing is one of the most physically challenging environments employees do work. Workers face numerous risks and other difficulties that jeopardize their safety, including excessive noise, operating dangerous/complex machines, and unsafe working environments. The majority of employees and management disregard workplace safety precautions. They do not take into account the cost, effect, and benefit of safety practices on themselves or the organization as a whole. This culture exists as a result of workers' ignorance and disregard for the organization's safety

procedures and rules; as a result, workers do not adhere to the organization's preventative measures.

Failure to adhere to safety and health procedures has a negative impact on the organisation as employees are not motivated to do their best on the job that trigger performance. Thus, resources that would have been used to develop staff, given as incentives or alternatively expanding the business operations would be used in paying for medical bill, and hiring of temporary workers, paying for compensation and related court issues which also has its impact on the overall productivity of the organisation.

Although management and employees are making efforts to ensure safety in the workplace, accidents at the workplace keep on increasing which indicate that work environment is still unsafe. It is in this vein that the study has chosen to investigate the influence of Occupational Health and Safety on Organizational productivity in Graceco Nigeria Limited.

1.3 Objectives of the study

The general objective of the study is to examine the influence of occupational health and safety on industrial productivity in Graceco Nigeria Limited Lagos. The specific objectives drawn from this general objective are:

1. To examine the relationship between Safety equipment and employee's job performance.
2. To verify the link between working environment and employee's job performance.
3. To investigate the association between workers' health and efficiency.
4. To examine the link between workplace culture of safety and the profit making of the organization.

1.4 Research Questions

The research proposed to answer these questions:

1. What is the relationship between safety equipment and employees' output?
2. What is the link between working environment and employees job performance?
3. What is the association between workers' health and workers efficiency?
4. How does workplace culture of safety affect profit making of the organization?

1.5 Hypotheses Statement.

The hypotheses for the study are as follows:

H₀₁: There is no significant relationship between safety equipment and employees' output.

H₀₂: There is no significant relationship between working environment and employees job performance.

H₀₃: There is no significant relationship between workers' health and efficiency.

H₀₄: There is no significant relationship between workplace culture of safety and the profit made by the organization.

1.6 Significance of the study

This study would be of great significance to the following groups; management of Graceco Nigeria Limited Lagos, employees, stakeholders/government and researchers.

The study would be useful for management as it enables them understand the importance of health and safety to their productivity. This study would serve as the bases for increasing the awareness of health safety as well as identifying the weaknesses of the various strategies that employers adopt to enhance health and safety standards. The research hope to proffer recommendations that may serve as solution to underlying problems associated with occupational health and safety of the organisation.

Employees would benefit from this study as the findings will enlighten them about the possible harm and danger associated with neglecting occupational health and safety measures. Also, employees will learn the standard procedure of the organisation as far as workplace safety is involved.

Data from this study would enable government to evaluate the health and safety practice of organisations. The recommendation from this study would allow them develop strategies that would improve occupational health and safety standard procedures.

This study will serve as reference material for researchers and other scholars, who are embarking on similar research. Finally, it is hoped that this study would stimulate other interested researchers to embark on further research.

1.7 Scope of the study

The scope of the research could be defined for the subject, the sample, the field of study and the timeframe. This research focuses therefore on the influence of Occupational Health and Safety on Organizational productivity. The study will cover one organization which is the Graceco Nigeria Limited Lagos. The scope of variables for the study includes occupational health and safety(OHS) and organisational productivity.

1.8 Limitations of the study

This research is limited as a result of some constraints experienced. The major part of this is as a result of the secrecy of organizations in Nigeria. Organizations in Nigeria do not let out information to people easily especially researchers. This is because other people can make reference to their research work and use the information against the organization.

Other limitation composed on this study, is that of shortage of time and financial constraints. These problems of time and finance account for the limitation of the sample size.

1.9 Definition of concepts

Health and Safety Policy: A health and safety policy for an employer is a written document that outlines the company's commitment to protecting employees and the broader public in terms of health and safety. It is a management commitment to the health and well-being of its employees (Iheanacho & Ebitu, 2016).

Occupational Accident: Occupational accident is an unexpected and unplanned occurrence, including acts of violence, arising out of or in connection with work which results in one more worker's incurring a personal, disease of death (Jovica, 2014).

Employee: Anybody who works for an employer's pay or salaries (Olive, 2019).

Hazards: The presence of a danger or risk that could result in injury or loss (Jovica, 2014).

Health: Health is a condition of complete and total well-being characterized by absence of physical ailments or discomfort in the body, mind, and soul (Leyla, 2019).

Productivity: Productivity is generally seen as a measure of the amount of output generated per unit of input (Yankson , 2012)

Organization: A group of individuals who form a corporation in order to accomplish a specific goal or objective (Greepherson, 2013).

Safety: This is the state of protection; it enhances one's freedom from risk and hazards or one's ability to keep oneself or others safe, particularly from the threat of accident or sickness (Yankson , 2012).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter seeks to review related literature of the study through literatures on occupational health and safety and organisational productivity, various literature on workplace safety, job performance, theoretical framework to empirical review.

2.1 Conceptual review

According to Saunders (2013), conceptual clarification is anchored on a set of broad ideas and theories that help a researcher to properly identify the problem they are trying to solve. However, Bordens and Abbot (2011) ascertained that most academic researches use a conceptual framework at the outset because it helps the researcher to clarify the study question and aim. This chapter seeks to review related literature of the study through literatures on occupational health and safety and organisational productivity, various literature on workplace safety, job performance, theoretical framework to empirical review.

2.1.1 Occupational Health and Safety

The World Health Organization (2010) defines safety as a "state of complete physical, mental, and social well-being, rather than simply the absence of disease or disability." Thus, health and safety refer to preventing and protecting individuals from injury and occupational disease in any form caused by hazards and risks that could harm, injure, create a dangerous working environment, or damage equipment or facilities installed at the workplace.

The International Labour Organization (2016) defines occupational health and safety as a broad discipline encompassing a variety of specialized fields that aims to promote and maintain the highest possible level of physical, mental, and social well-being for workers in all occupations, to

prevent adverse health effects caused by working conditions, and to protect workers. Additionally, occupational health and safety policies need the maintenance of workers in a work environment that is adapted to their bodily and mental demands, as well as the adaptation of work to humans.

A healthy workplace, as defined by the World Health Organization (2010), is one in which workers and managers collaborate to protect and promote workers' health, safety, and well-being, as well as the long-term viability of the workplace, by taking the following into account, based on identified needs:

1. health and safety concerns in the physical work environment;
2. health, safety and well-being concerns in the psychosocial work environment including organisation of work and workplace culture;
3. personal health resources in the workplace; and
4. ways of participating in the community to improve the health of workers, their families and other members of the community.

Health and safety hazards and risk must be managed and controlled to achieve high level safety performance. Management entails leadership, authority and co-ordination of resources, together with planning and organisation, communication, selection, training of subordinates, accountability and responsibility. To achieve occupational safety and health objectives all parties involved at the workplace such as management, personnel or workers and union officials and people concerned have to be visibly committed to the health and safety programmes.

Occupational Health and Safety Management Systems (OHSMS) have been defined by Gallagher (2011) “as a combination of the planning and review, the management organizational arrangements, the consultative arrangements, and the specific program elements that work together

in an integrated way to improve health and safety performance”. Efficient use of communication and information networks in companies contributes to both the reduction of accidents and the improvement of workers' perceptions of management's commitment to OHS. (Gyekye et al., 2012).

Safety management systems are integrated mechanisms for reducing hazards to worker health and safety in enterprises while also ensuring compliance with applicable requirements. A successful safety management system should be fully integrated into the organization and with binding authority; a cohesive system of policies, strategies, and procedures provides continuity and harmonization (Fernández-Muniz et al., 2010). Policies and procedures relating to health and safety are an integral aspect of an effective health and safety management framework. General health and safety rules indicate management's commitment to providing a healthy and safe work environment for employees (Christian et al., 2010).

Risk management is a method that has become more popular in businesses and the public sector as a means of enhancing safety and reliability and mitigating losses. It includes defining, assessing, and controlling the risks (Cox & Tait, 2010). Similarly, occupational health safety risk management is also described as a three-phase process. First, the hazards in the workplace are defined. Second, the hazards underlying the risk are assessed. Finally, appropriate controls are put in place for accordingly defined risks (Lingard & Holmes, 2001). Understanding and managing all risks that would likely affect the organization will render better performance and competitive advantage.

According to a review of occupational accidents and health problems related with work, individuals who have worked in the domains of electricity, gas, steam, water, and sewage systems, as well as those who have worked in the construction sector, rank first (TUIK, 2015). Albert and Hallowell (2013) suggested in their study that use of safety-related procedures, following

instructions, cutting of power lines, and stopping operation of equipment in an attempt to prevent injuries were a cost-inefficient strategy yet very effective as regards preventing injuries. The findings of the study underscored that the benefit of applying injury prevention strategies were low compared to other sectors (e.g. construction sector). Consequently, investment in safety interventions may not offset economic returns yet creates value as non-monetary benefits (e.g. decreased worker turnovers) and decreases social costs (e.g. social injustice) associated with injuries.

De Koster et al. (2011) proved that a safety-first approach helped reduce accidents. Direct costs in this context include initial intervention, ambulance and hospital expenses, payments for temporary or permanent incapacity for work or death, pecuniary and non-pecuniary damages payable to the worker or worker's relatives, and damages payable to insurance, while indirect costs include reputational damage, long-term efficiency, and legal expenses. Generally, businesses should invest in strategies that reduce workplace accidents in order to enhance their safety performance. This idea is supported by the fact that such companies that focus on safety in their daily operations and working methods as Scania, Tata Steel, Boston Scientific, and Nissan experience lesser number of accidents and decrease relevant costs.

The operation of the safety climate is dependent on employee perceptions, and the safety climate as formed by the so-called shared perspective of employees is related with policies, procedures, and practices that reflect the organization's value and importance of safety (Griffin & Neal, 2010). Griffin and Neal (2010) defined safety climate perception as the extent to which employees believe in the organization's value of their safety and well-being. Consideration refers to the extent to which a leader demonstrates concern and regard for his or her followers, looks out for their welfare, and offers gratitude and support.

2.1.2 Safety Equipment

Generally, safety equipment is the protection that is used by workers to avoid injuries, casualties, life threatening situations. Different types of safety equipment are used by workers depending upon the nature of risk involved in the work. Productivity is generally seen as a measure of the amount of output generated per unit of input. In many countries, public sector productivity has been assumed to be zero in the national accounts. Holzer and Seok-Hwan, (2014) argue that although the concept of productivity has been utilised for many years, it is often simplified, misinterpreted and misapplied. They argue that the concept of performance may constitute a more appealing conceptual approach toward improvement. Both principles, however, are essential tenets of public administration and the focal point of a continuous effort that endures because they address a fundamental connection: a productive society is contingent upon a high-performing government. Indeed, the concept of productivity has become synonymous with the concept of performance (Jackson, 2010)

According to Holzer and Seok-Hwan (2014), productivity and performance are determined by a variety of factors, including top management support, committed personnel at all levels, a performance measurement system, employee training, reward structures, community involvement, and feedback on budget management decisions. Thus, it is critical to develop capacities for productivity enhancement. Productivity at the organizational and process levels has primarily been studied in the manufacturing industry; it is predicated on the idea that an organization's core process functions similarly to an industrial production process (Gummesson, 2012).

McCunney (2011) intimated that productivity is also often linked to discussions concerning general efficiency. Productivity is understood in a wider sense and combined to rationalization of work and improvement of wellbeing in the work community. McCunney (2011), views

productivity as a conceptual phenomenon and widening the concept weakens its characteristics as a tool for research and development.

Muchemedzi and Charamba (2016) define occupational health and safety as a science that examines the relationship between health and work or the work environment. According to Oxenburgh et al. (2014), the health and safety of all employees is inextricably related to the productivity of the organization in all workplaces. In the majority of circumstances, occupational health safety is measured primarily through negative outcomes such as workplace injury and illness. However, these metrics have limitations; for example, a low injury rate does not always imply that effective safety systems and controls are in place (Health and Safety Executives, 2016).

2.1.3 Working Environment

One of the major problems of manufacture companies is focusing on improving worker productivity as a measure of job performance. Some shared features of such manufacturing companies include high workloads, adverse environment, ill-designed machinery, and unsafe working conditions etc. High workloads and such workplace conditions as excessive hot/cold, chemical smell, noise, bad lighting, vibration, and dust have direct and indirect influence in job performance of workers. Such conditions decrease the worker concentration towards duties, lead to lower worker performance such as low productivity, poor quality, and physical and emotional stress, and results in high costs (Kahya, 2010).

Individuals working in a healthy work environment believe that their demands related with job are not excessive and that they do not have to sacrifice their health and family lives or other meaningful non-work roles in order to perform well on their jobs (Kossek, Kalliath, & Kalliath, 2012). They have positive psychological feelings with their jobs and perceive positive energy, and skills on the

job. It is believed that they are valued at work and their jobs are a good fit with their abilities and interests (Kossek et al., 2012).

Organizational commitment may potentially affect the performance of the entire organization. Therefore, commitment is a quality that is strongly desired by organizations and that encourages the workers. Even though the studies do not suggest coherent findings as regards whether performance is a result of organizational commitment, it would not be wrong to assert that commitment is a determinant of high performance based on the fact that having positive work attitudes would render positive work outputs (Camilleri, 2012).

Past studies defined three dimensions of organizational commitment: affective commitment, normative commitment, and continuance commitment. Studies suggested that all three dimensions were negatively associated with worker turnover and had significant positive relation with other attitudes towards work at varying levels (Meyer, Stanley, Herscovitch, & Laryssa, 2012). Therefore, widespread adoption of OHS practices in enterprises will positively influence the organizational commitment of the workers. First aid training in the scope of OHS is quite necessary in order to control the excessive self-confidence, i.e. the unrealistic “nothing happens to me” idea, and raise awareness as regards emergent situations.

First aid training ensures that participants are protected against injuries and occupational diseases. Participants show better efforts for decreasing the risks at workplace subsequent to the first aid training. It can be said that the first aid training improves the motivation of participants in order to prevent occupational hazards and diseases. However, it should be noted that the degree of change towards positive behaviors due to the foregoing increased motivation is also dependent upon other organizational factors. A good rewarding mechanism is also required in order to establish occupational health and safety in the working environment (Lingard & Holmes, 2010).

2.1.4 Association of Workers' Health and Workers' productivity

Every worker has the right to work in a healthy and secure environment. It is the prime duty of the employers to give their labor force with an environment that is safe, healthy and friendly. Workers' health and safety should be the prime concern of all the employers. An employee of an industry or organisation is liable to work in an environment where his safety and health are properly taken care of. The workplace is where many people spend the majority of their time.

When conditions are favorable, labor contributes to physical and economic well-being. However, many employees are exposed to health hazards on the job that contribute to injuries, respiratory diseases, cancer, musculoskeletal disorders, reproductive disorders, cardiovascular diseases, mental and neurological illnesses, vision damage, and hearing loss, as well as communicable diseases (Weeks et al, 2011).

According to World Health Organisation, the current global labour force stands at about 2600 million and is growing continuously. Approximately 75% of these working people are in developing countries. The officially registered working population constitutes 60–70% of the world's adult male and 30–60% of the world's adult female population. Each year, another 40 million people join the labour force, most of them in developing countries. Workplace environmental hazards are therefore a threat to a large proportion of the world population (World Health Organisation, 2009).

By establishing surroundings that support work quantity, quality, and style, while decreasing turnover and absenteeism, workplace design and operations can contribute to an organization's success (Mohr, 2012). Numerous organizations have experimented with different designs and procedures for office buildings over the years, with the goal of increasing efficiency and attracting

new staff. Numerous authors have stated that the physical arrangement of the workspace, in conjunction with efficient management methods, has a significant impact in increasing employee productivity and organizational performance (Vancevich, 2015).

Cole (2012) categorizes the major elements affecting workers' productivity and performance into two categories: Management-driven factors include the development of organizational plans, such as the assignment of responsibilities at all levels of the organization, the definition of job descriptions and the degree to which employees have access to management and administrative support necessary to complete their tasks, working patterns, shift work, break times, absence or holiday cover, and health and safety policies.

Additional factors affecting performance and productivity include the work environment, office or factory design, machinery and workshop tools, workspace availability, light intensity, weather, temperature, ventilation, humidity, noise, vibration, as well as hygiene and welfare facilities. When a workplace is organized to maximize employee engagement, collaboration becomes a vital component of every workday. Office layouts that place work areas where they are needed on the production floor can increase employee comfort while boosting efficiency.

Organizational design is a vital component of any business's success and a factor affecting employee efficiency. However, the majority of businesses use a remote or mobile workforce, have different employee demographics, have special corporate and branding objectives, have an international staff, and deal with worldwide clients. According to Neal (2010), an employee's workplace accounts for 24% of their job satisfaction, which can have a 5% effect on individual performance and health and an 11% effect on team performance. As a business's most precious asset, substantial consideration should be paid to the physical environment of the office, which is more likely to boost employee health and productivity. By contrast, poor workplace design is

associated with decreased company performance and a higher degree of stress experienced by employees, affecting their physical, psychological, and social well-being and, as a result, their work performance.

Clark (2015) observed that the costs of unhealthy and unsafe workplaces have been well documented and are calculated in terms of absenteeism. According to the World Health Organisation Report, (2012), one person in four suffers from a mental health problem at some point in their life. A 2006 report commissioned by five leading mental health charities states that at least one million adults in the UK are out of work with mental health problems Work-related stress is the root cause of a significant degree of mental ill health. Stress can manifest itself in absenteeism, reduced productivity, and increased staff turnover. Excessive stress can lead to fatigue, impaired judgment and decision-making and the onset of both mental and physical health problems. The impact of health on performance was demonstrated in a study of employees at the US banking giant Wachovia, where it was discovered that employees who participated in an energy renewal program outperformed a control group by 15% to 20% in terms of meeting bottom-line sales and business growth targets (Phillips, 2009).

2.1.5 Workplace culture of safety and profit maximization of the organization

Health and Safety is one of the industrial hygiene disciplines that affect employees and other associated persons on the job. Although working conditions have improved significantly in recent years, industrial accidents continue to occur. Preventing work-related injuries continues to be a significant issue for all companies. Each organization shares certain internal features that are collectively referred to as its culture. These features have frequently become unnoticed to individuals on the inside but might be shocking to outsiders from other cultures. A company's

health and safety culture are inextricably tied to its employees' attitudes toward safety, as they share the company's risk, accidents, and incidents.

Effective safety management, according to Glendon and McKenna (2015), is both functional (included management control, monitoring, executive, and communication subsystems) and humanistic (involving leadership, political and safety culture subsystems paramount to safety culture). Management's role and the involvement of all employees as critical key players in health and safety culture are critical in cultivating positive beliefs, practices, conventions, and attitudes throughout the organization. Creating a safety culture across such a wide range of differences is no easy undertaking. However, it has been established that organizations with strong health and safety cultures have employees that exhibit positive attitudes toward safety and health practices. Businesses must collect safety-related data, monitor safety performance, and educate employees on how to work more safely.

Glendon and McKenna (2015) also identified four critical indicators of safety culture which include, the effective communication which leads to commonly understood goals and means to achieve them at all levels, good organisational learning, whereby organisations are able to impact on relatively how much time and attention is essentially paid to health and safety as well as external factors such as financial health of the organisation, the prevailing economic climate and impact of regulation and how well these are managed.

2.1.6 Safety Standards and Health Problems Faced by Employees

Health and Safety is encompassed among other disciplines of industrial sanitation that affect employees and other related personnel in the organization. Although working conditions have improved significantly in recent years, occupational accidents continue to occur, particularly in

manufacturing. Preventing work-related accidents continues to be a significant issue for all companies. Each organization shares certain internal features that are collectively referred to as its culture. These features have frequently become unnoticed to individuals on the inside but might be shocking to outsiders from other cultures.

Health and safety culture within a company is closely linked to the workforce's attitudes in respect to safety as they share the company's risk, accidents and incidents. According to Glendon and McKenna (2015), effective safety management both involve management control, monitoring, executive and communication sub-systems and also involves leadership, political and safety culture sub-systems paramount to safety culture. The role of management and the involvement of all employees as important key players in health and safety culture are important in order to cultivate the positive beliefs, practices, norms and attitudes among all in the company. Building a safety culture on so many diversities is not an easy task. But it had been proven that companies with good health and safety cultures have employees with positive patterns of attitude towards safety and health practices.

Companies need to gather safety related information, measure safety performance and bring people together to learn how to work more safely. Reason (2010), identified a number of characteristics that go to make up a safety culture. These include, an informed culture, reporting culture, flexible culture, just culture and learning culture. An informed culture he said, refers to those who manage and operate the systems knowledge about the human, technical, organisational and environmental factors that determine the safety of the system as a whole, whilst a reporting culture is the willingness in which people report errors and near misses. A just culture is an organisation where an atmosphere of trust is present and people are encouraged or even rewarded for providing

essential safety-related information- but where there is also a clear line between acceptable and unacceptable behaviour.

On the other hand, a flexible culture takes different forms but is characterised as shifting from the conventional hierarchical mode to a flatter professional structure. Glendon and McKenna, (2010) also identified four critical indicators of safety culture which include, the effective communication which leads to commonly understood goals and means to achieve them at all levels, good organisational learning, whereby organisations are able to impact on relatively how much time and attention is essentially paid to health and safety as well as external factors such as financial health of the organisation, the prevailing economic climate and impact of regulation and how well these are managed.

2.1.7 Organisational Role and Attitude to Health and Safety

Safety management refers to an organization's responsibility for safety promotion, which is usually manifested in employees' attitudes, beliefs, perceptions, and values towards safety. Stranks (2010) asserts that management places a premium on health and safety. The management's opinions and attitude to accident prevention are constantly reflected in the supervisory force of the organization.

Thus, if the employer is not truly committed to preventing accidents, it is improbable that anybody else will be, as this fundamental reality holds true at all levels of management and oversight. Beach (2010) asserts that an accident control program is the result of top management's efforts and must be demonstrated in order to garner employee cooperation and participation. This needs management to build information and control systems that enable the monitoring of health and safety performance and the implementation of appropriate remedial actions.

According to Pantry (2015), management should maintain protocol compliance by holding supervisors accountable for health and safety performance in their zones and providing them with whatever assistance, coaching, or training necessary to perform their jobs effectively. The membership of this committee should be chosen from across the organization in order to evaluate procedures and conditions and make recommendations to improve health and safety performance.

2.2 Theoretical Review

2.2.1 Theory of Behaviour-Base Safety

Behaviour-based safety (BBS) is a method for reducing workplace accidents and fatalities. It is predicated on the notion that workplace safety is a function of three research variables: personality, environment, and behavior. Only when these three components are in place is it possible to have a "accident-free" workplace. According to BBS, it is feasible to identify elements that promote safe and dangerous behavior by observing and studying interactions between people's conduct and their work environment. Additionally, BBS asserts that by modifying the environment to promote safe behavior and applying established behavioral safety protocols, a firm can significantly minimize lost-time and minor injury incidents.

Advocacy for behavior-based safety has also sparked debate, with some arguing that a behavioral focus places an excessive amount of responsibility on workers and that BBS is too limited in scope and should instead focus on a more holistic or cultural approach. In any case, behavioral safety has fostered constructive debate, and the resulting disagreements have provided an opportunity to gain a better understanding of the psychology of injury prevention (Cooper 2007; Geller 2004). To be successful, the BBS program must involve all employees, from the top managers to the junior staffs, because the necessary changes cannot be implemented without the buy-in and support of all parties involved in the decision-making process.

Central elements of BBS program include (i) common goals for the employees and the managers, (ii) behavioural observation and feedback processes, (iii) formal review of observation data, (iv) improvement goals, and (v) reinforcement for improvement and goal attainment. Other aspects that can contribute to a BBS program success included (i) multilevel teams for assessment, observation and review phases; (ii) placing the focus on workplace observation; and (iii) recognizing that BBS is not a quick fix, but rather a commitment to a safer environment and injury reduction.

2.2.2 Maslow's Hierarchy of Needs

Abraham Maslow was of the view that man is inwardly good challenged that individuals constantly possess an inner need that grows constantly and has an inner drive that comes with much potentials. This is basically term as the need hierarchy system which was promulgated by Maslow (1954), this is a very commonly use means in classifying the needs of human motives. This basically comprise five distinct categories of motives that have been arranged with the lower- level of the needs on the bottom which must or needs to be satisfied first before attempting to satisfy the higher level of needs come into play (Wallace et al, 1987). The five distinct levels of the needs have been put forward by Hammer and Organ (1978) are been shown in the hierarchical order below:

- 1) The Physiological needs which include food for the individual or having food security to survive, acquiring shelter and sex
- 2) Safety needs which also include protecting the individuals from any physical harm or danger, threat, and deprivation. Behaviour which arouses uncertainty with respect to continued employment. Safety needs can be referred to as job security, savings account, insurance policies, financial security, and health and well-being.

3) Social needs: This entails exchange of offering love to people and also receiving same love and affection in return.

4) Self-Esteem; this basically talk of achieving the personal need of the people, getting full recognition and prestige from the public.

5) Self-actualization needs: This also talks about the quest to achieve the potential for oneself for successive development and the willingness to achieve the maximum potential in life.

Maslow's theory is relevant to this study as it demonstrates the importance of safety in every organisation and the society at large. In order for organisation to increase productivity and performance, safety must be the priority.

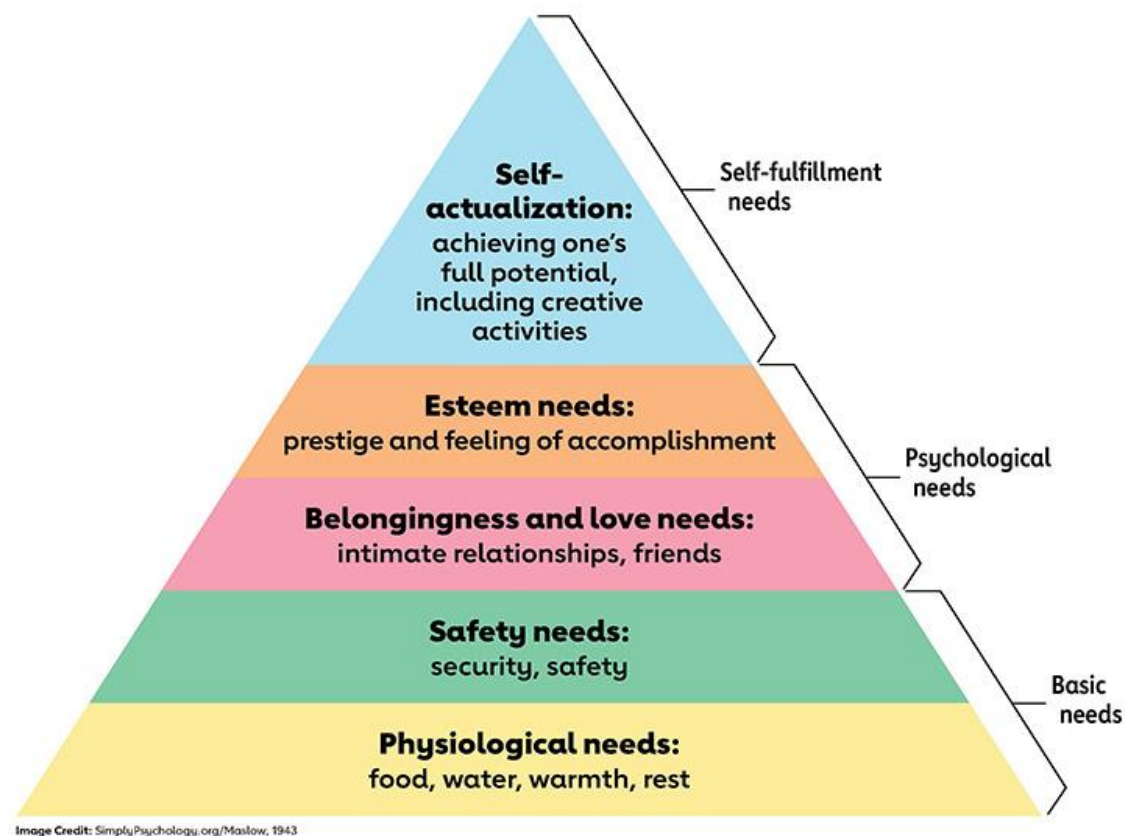


Figure 2.1 Maslow Hierarchy of Needs

2.2.3 Theoretical Framework

This study is motivated by the Theory of Behaviour-Based Safety. The theory's relevance to this study cannot be overstated; the theory emphasizes the need of reducing workplace accidents and fatalities. It is predicated on the notion that workplace safety is a combination of elements such as personality, environment, and behavior. Only when these three elements are present can a workplace be considered safe. Considering the three primary reasons why organizations must manage health and safety risk, it is both a moral and legal obligation for employees to develop hazard-free work environments. The personality of an individual is critical regardless of his or her state. The environment has a significant impact on an employee's personality because it helps mold their behavior.

Behaviour-base safety is significant to this study because it explains the critical nature of safety inside an organization. The workplace must be free of hazards in order to support the performance of the various tasks assigned to employees. Employees who are active in decisions affecting their well-being become more productive. They are internally satisfied since they have not been excluded. They also develop an awareness and sensitivity to their working environment.

2.3 Empirical review

There is evidence that providing a healthy and safe work environment can enhance labor productivity and, consequently, business profits. Additionally, it is obvious that certain requirements must be met in order for health and safety interventions to be successful and result in an improvement in productivity. These needs include a high level of cooperation between management and staff, as well as a safe working environment.

A number of researches have been conducted in the sub-sectors of the manufacturing industry, construction industry, service industry, petroleum and plastics, and electronics. One of such studies

is by Makori (2010) on the influence of occupational health and safety of manufacturing firms in Kenya.

The researcher used a convenient sample by selecting all the manufacturing firms in Western Kenya. Validity and reliability of the research instruments were done by using the retest method using one of the manufacturing firms. Data collected from all the manufacturing firms were collected and analyzed using descriptive statistics and inferential statistical tools like Pearson correlation, simple regression and one-way ANOVA. The study findings showed a moderate positive relationship between occupational health and safety programmes and organisational performance of manufacturing firms. This was an indication that health and safety programs were correlated in the studied firms, thus, influencing organisational performance of these firms in terms of sales, profitability, production, order delivery, reputation, target achievement, product quality and production costs.

According to the World Health Organization's Regional Committee for Africa (2014), occupational hazards to human health and life are growing more prevalent in the African Region. According to a Regional Director for Africa study, workers in an East African country's gold mining industry reported abnormally high levels of total mercury in urine samples taken from miners exposed to mercury vapor during the burning of gold-mercury amalgams.

In the same country, accident rates in the mining, building, and construction industries ranged between 10 and 18 per 1000 workers. Director for Africa said in the same report that in another East African country, women working in manufacturing industries saw a rate of 7.6 clinical health complaints per worker per year. A study conducted in West Africa discovered abnormally high amounts of lead in the blood and urine of smelters, vehicle technicians, and fuel marketers.

Between 1990 and 1998, one southern African country reported 2,200 agricultural and forestry accidents and 16 fatalities.

In low-income nations, the cost of road injuries is estimated to be 1% of gross national product. Cumulative weariness from lack of sleep, night driving, and shift work has also led to road traffic accidents and fatalities. Despite these findings, just 5% to 10% of workers in developing nations and 20% to 50% of workers in affluent countries have access to occupational health treatments. In 2001, despite numerous WHA decisions, a survey undertaken by the WHO Regional Office in Africa revealed a dearth of comprehensive occupational health services for employees in the Region. 63 percent of countries surveyed conducted risk management; 41% provided information and education; 26% conducted pre-employment medical examinations; 33% provided clinical services for vaccinations, special examinations, and treatment; and 7% conducted research, conducted examinations for compensation, developed human resources, and provided education and counseling on HIV/AIDs.

Occupational health and safety policies and legislation do demonstrate a commitment to worker health. According to the regional survey, 48% of countries have occupational health legislation and 37% have labor and health legislation, but both lack the human resources to supervise application. The high prevalence of endemic disease, circumstances associated with the use of cigarettes and other dangerous drugs, and malnutrition, as well as the lack of routine medical examinations, expose workers to uncontrolled biological dangers. According to the 2002 World Health Report, risk at work accounts for more than 40% of hepatitis B and C cases and more than 3% of HIV infections in the African Region. Certain industries in several southern African nations claim adverse effects of HIV/AIDS on the job.

2.4 Research Gap

The study focused on investigating the influence of occupational health and safety on industrial productivity in Graceco Nigeria Limited Lagos. From previous research, Lehtinen (2011), Pagell et al. (2013), Yackson (2012) and other scholars conducted study on the link between workplace conditions and employee productivity. However, little empirical findings have been found on the influence of occupational health and safety on productivity of employees, particularly in Manufacturing Industry. Hence, this study therefore investigated the influence of occupational health and safety on industrial productivity using, Graceco Nigeria Limited, a manufacturing company in Lagos as a case study. The findings from this study form a unique and bridge the identified gap in literature.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the procedures employed for the collection and analysis of the data relevant to the investigation. These include the area of study, sample size and sampling technique, source of data, methods of data collection, and method of data analysis.

3.1 Research Design

The study adopted a descriptive survey research design. According to Nwoegu (2016), descriptive survey design is concerned with collecting data from a sample of a population order to describe conditions or the relationship that exist, opinions that are held, processes that are going on, effects that are evident or trends that are developing.

3.2 Study Organization

This research paper is organized into five chapters. Chapter one presents the background to the study, statement of problem, Research questions, objectives (both general and specific). It also outlines the hypothesis statement, significance, Scope as well as the limitations of the study and definition of concepts. The second chapter reviews relevant literature on the concepts and core issues of the study while chapter three explains how the study was conducted. Methodological concept considered here include the research design, study organization, population of study, sample size, sampling techniques, method of data collection, Instrument of data collection, data analysis method and validity and reliability of instrument. Chapter four discusses and analyzes the results of the study while chapter five summarizes, offers recommendations and conclusion for the study.

3.3 Population of the study

This comprises of low, middle and top management staff. The population of this study of comprises of up to 250 staff from Graceco Nigeria Limited Lagos. This is evident from the report about SMEs in Nigeria. The most frequent upper limit designating an SME is 250 employees. There are also 50 staffs of Graceco Nigeria limited Lagos registered on LinkedIn.

3.4 Sample size

A sample is a small representative subset of a population. The researcher used Slovin's formula to determine the Sample size. Slovin's formula is useful because it helps determine the sample size when little information is known about the population.

$$n = N / (1 + N e^2)$$

Where n = Number of samples, N = Total population = 250, and e = (Error tolerance level)

At 95% confidence level (alpha level = 0.05)

$$n = N / (1 + N e^2)$$

$$250 / (1 + 250 * 0.05^2)$$

$$n = 153.84$$

$$\text{appro} = \mathbf{154}$$

Approximately, 154 sample respondents was selected for this study.

3.5 Sampling Techniques

A sample is a subset the population but element of which has common characteristics. Also, it refers to any portion of a population selected for the study and on whom information needed for the study obtained, However, out of the target population, simple random sampling technique will be used to selecting samples for the study. One hundred and fifty-four respondents will be

randomly sampled in order to prove or disprove the hypotheses; the people will provide the required responses.

3.6 Method of Data Collection

The administering of the questionnaires was carried out by the researcher and a research assistant.

The researcher will make sure that the selected research assistant is familiar with the interpretation of the instrument with the language of the immediate environment of the respondents.

Researcher will send a letter to human resource department of the organization in subject base on the study, after permission is granted date fixed, the researcher will then administer the questionnaire and collect the completed questionnaire from the respondents.

3.7 Instrument of Data collection

The instrument to be used for data collection was questionnaire. It was constructed by the researcher to collect data from the workers on the influence of occupational health and safety on organizational productivity. However, the items in the questionnaire would also be drawn to suit the need of present study, the questionnaire consist of two **sections**. Section A and B, section “A” consists of items on demographic status of the respondents. Here information on age, gender, qualification, position in the organisation and work experience while section B contains items which will be structured to elicit information on the “the influence of occupational health and safety on industrial productivity in Graceco Nigeria Limited Lagos” which will be categorized based on specific objectives and research questions.

Also, the questionnaire was structured in a five (5) point Likert Scale rating as follows:

Strongly Agreed (S.A) _____ 5 point

Agree (A) _____ 4 point

Undecided _____ 3 point

Strongly Disagreed (S.D) _____ 2 point

Disagreed _____ 1 point

3.8 Methods of Data Analysis

The bio-data of the respondents' and the research questions was analyzed using the frequencies and percentages on demographic variables of the respondents. Meanwhile, percentages will be computed for the calculated 'Strongly Agreed' 'Agreed' 'Undecided' 'disagreed' and 'Strongly disagreed' statements.

Also, the hypotheses are tested using inferential statistical tools. Null hypotheses (H_0) was tested using spearman correlation at 0.05 level of significance. This is because, spearman correlation coefficient is a test suitable for testing relationships between variables with Likert scale data. The researcher employed IBM SPSS 26.0 version software for the data calculation and data storage.

3.9 Validity of instrument

In order to ensure the validity of the instruments, content validity was used, where the items in the questionnaire was checked considering the research purpose. An expert judgment was sought from the supervisors who assisted in the validation of the instruments. The validity helps in identifying items in the questionnaires that need restating and removing those that are not important in the study.

3.10 Ethical Principles

Ethical approval was obtained from the appropriate organisation and departmental authorities. The academic value of the research and its economic significance was explained and communicated to all necessary parties, then the assurance of confidentiality of all information given by the respondents will be stressed during administration of the questionnaires if need be.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter is dedicated primarily to the analysis and presentation of data obtained from the field using various statistical techniques discussed earlier in the methodology. All data collected were presented, analyzed and discussed. 154 copies of questionnaire were carefully administered to respondents while 150 copies were correctly filled and returned at the stipulated time. This means response and retrieval rate is 97.4%. Thus, 150 copies of questionnaire received from respondents were presented and analyzed using Software Package for Social Science (SPSS).

4.1 Preliminary Survey Details

Table 4.1: Response Rate to Questionnaire Administered

S/No	Questionnaires	Frequency	Percentage
1.	Number of questionnaires administered	154	100
2.	Questionnaires retrieved and used for the final analysis	150	97.4
3	Number of questionnaires not retrieved and discarded due to errors.	4	2.6

Source: Field Survey 2021

Table 4.1 above provides the response rate to questionnaires administered. A total of 154 copies of questionnaire were administered to the staff of Graceco Nigeria limited according to our sample size determination. The total number of questionnaires retrieved after administration was 150, the

number of questionnaires not retrieved and discard due to errors were 4. This means 97.4% response rate was achieved.

4.2: Demographic Information of the Respondents

This section presents the analysis of demographics of the sample respondents based on their Gender, Age, Marital status, Educational qualification, how long they have worked for the organisation (Years of experience) and current position in the organisation (Current position).

Table 4.2.1: Demographic information of respondents

Variables	Frequency	Percentage (%)
Gender		
Male	91	39.3
Female	59	60.7
Age		
29 years and below	66	44.0
30-39 years	44	29.3
40-49 years	23	15.3
50-59 years	17	11.3
60 years and Above	0	0.0
Marital Status		
Single	76	50.7
Married	74	49.3
Divorced	0	0.0
Widowed	0	0.0

Educational qualification		
Certificate	53	35.3
Diploma	43	28.7
Bachelors' degree	29	19.3
Master's degree	25	16.7
Doctorate degree	0	0.0
Others	0	0.0
Work experience		
Below 5 years	33	22.0
6 – 10 years	33	22.0
11 – 15 years	46	30.7
16 –20 years	22	14.7
21 years and above	16	10.7
Current Position		
Senior management	17	11.3
Middle management	46	30.7
Supervisory	41	27.3
General Staff	43	28.7
Others	3	2.0
TOTAL	150	100.0

Source: Field Survey 2021

Table 4.2.1 presented the demographic information of the respondents. The results of this analysis are summarized thus:

It can be seen that 59 respondents representing 39.3% are female while 91 respondents representing 60.7% are male. Majority of the employees that participated in this survey were male. The age of the respondents was also analyzed, result showed that 66(44.0%) respondents were below 29 years, 44(29.3%) were between 30-39 years, 23(15.3%) were between the ages 40-49 years, 17(11.3%) were between the ages 50-59 years while none of the respondents were between the ages 60 years and above. This implies that majority of the employees Graceco Nigeria Ltd were 29 years and below i.e large proportions of the employees were young adults.

Also, the marital status of the respondents, as shown in table above indicated that, 76(50.7%) respondents were single while 74(49.3%) respondents were married. From the result. It can be seen that majority of the employees of the organisation were single and none of the respondents of this study were divorced/widowed.

Information was also collected on the educational qualification of respondents, 53(35.3%) of the respondents have certificate, 43(28.7%) have Diploma, 29 respondents representing 19.3% have Bachelor's degree, 25 respondents representing 16.7% have Master's degree, none of respondents have doctorate degree. Results indicated that a majority of the employees' Secondary school leaving certificate or Diploma.

In addition, the table shows the work experience of the employees in Graceco Nigeria Ltd. Based on the result, 33 respondents representing 22.0% have spent 5 years or below in the organization, 33 respondents representing 22.0% have up to 6-10 years working in this organization, 46(30.7%) respondents have between 11-15 years of experience also, 22 respondents representing 14.7 %

have 16-20 years' experience working in the organization while 16 respondents representing 10.7% have spent 21 years and above' in the company.

Lastly, the distribution of the respondents based on their current position in the organisation are also shown in the table above, 17(11.3%) respondents are senior managers, 46 representing 30.7% of the respondents are middle managers, 41(27.3%) are supervisors, 43(28.7%) were general staffs while 3(2.0%) occupy other positions in the organisation. Majority of the respondents were either middle managers and general staffs. hence, their response will be valuable for this research.

4.3. Relationship between safety equipment or the workplace and employees' output

This section presents the answer provided by the respondents to research question one that seeks to evaluate whether there is a relationship between safety equipment and employees' output.

Table 4.3.1. Is there any relationship between safety equipment or the workplace and employees' output?

	Safety equipment	SA (%)	A (%)	PA (%)	PD (%)	D (%)	SD (%)
1	Access to personal protective equipment when working in the factory	39 (26.0)	39 (26.0)	39 (26.0)	10 (6.7)	13 (8.7)	10 (6.7)
2	Employees always make use of protective equipment	36 (24.0)	38 (25.3)	33 (22.0)	17 (11.3)	13 (8.7)	13 (8.7)
3	Provision for adequate and new safety equipment in the workplace	28 (18.7)	40 (26.7)	28 (18.7)	24 (16.0)	19 (12.7)	11 (7.3)
4	Low accessibility of safety equipment	34 (22.7)	34 (22.7)	45 (30.0)	20 (13.3)	11 (7.3)	6 (4.0)
5	Low utilization of safety equipment	10 (6.7)	32 (21.3)	27 (18.0)	53 (35.3)	19 (12.7)	9 (6.0)
	Employees' output	VH (%)	H (%)	MH (%)	ML (%)	L (%)	VL (%)
6	Target achievement	38 (25.3)	51 (34.0)	26 (17.3)	14 (9.3)	21 (14.0)	0 (0.0)
7	Ability to meet up to deadline	26 (17.3)	44 (29.3)	32 (21.3)	27 (18.0)	12 (8.0)	9 (6.0)
8	Ability to multitask	27 (18.0)	27 (18.0)	24 (16.0)	20 (13.3)	31 (20.7)	21 (14.0)
9	Flexibility	42 (28.0)	36 (24.0)	27 (18.0)	25 (16.7)	11 (7.3)	9 (6.0)

10	Abstinence	0	17	26	19	47	41
		(0.0)	(11.3)	(17.3)	(12.7)	(31.3)	(27.3)

Source: Field Survey 2021

Table 4.3.1 above revealed that majority of the respondents (employees) (26.0%) strongly agreed, similarly, 26.0% respondents agreed and some partially agreed that there is access to personal protective equipment when working in the company factory. The table shows that majority of the respondents (25.3%) agreed that employees always make use of protective equipment, followed by another group of respondents (24.0%) who strongly agreed. Also, 26.7% of the respondents agreed that adequate and new safety equipment are provided in the workplace, 30.0% of the respondents which forms the majority only partially agreed that there is low accessibility of safe equipment in the workplace while majority of the respondents partially disagreed to low utilization of safety equipment in the workplace.

Furthermore, the table showed respondents’ opinion on employees’ output in relation to safety equipment use in workplace. It can be seen from the table that majority of the respondents (34.0%) attested that target achievement is high in the workplace. Also, majority of respondents believed employees ability to meet up with deadline is high, in addition, employees’ flexibility to task is very high according to majority of the respondents (28.0%). Meanwhile, majority of the respondents (20.7%) is of the opinion that Graceco employees’ ability to multitask is low while employees’ abstinence at workplace is also generally low (31.3%) .

Table 4.3.2: Link between working environment and employees job performance

	Working environment	SA (%)	A (%)	PA (%)	PD (%)	D (%)	SD (%)
1	Relaxed and productive atmosphere	46 (30.7)	39 (26.0)	41 (27.3)	8 (5.3)	11 (7.3)	5 (3.3)
2	Ergonomically designed workplace/factory	22 (14.7)	26 (17.3)	26 (17.3)	20 (13.3)	24 (16.0)	32 (21.3)
3	Conducive atmosphere with adequate Air conditioning system	23 (15.3)	31 (20.7)	17 (11.3)	35 (23.3)	27 (18.0)	17 (11.3)
4	Proper lighting and noise conditions	10 (6.7)	11 (7.3)	24 (16.0)	45 (30.0)	32 (21.3)	28 (18.7)
5	Concern for health and wellbeing of staff	38 (25.3)	36 (24.0)	43 (28.7)	17 (11.3)	11 (7.3)	5 (3.3)
	Job performance	VH (%)	H (%)	MH (%)	ML (%)	L (%)	VL (%)
6	Good feedbacks from managements	24 (16.0)	65 (43.3)	18 (12.0)	29 (19.3)	14 (9.3)	0 (0.0)
7	Quality Results	23 (15.3)	54 (36.0)	39 (26.0)	23 (15.3)	11 (7.3)	0 (0.0)
8	On-time delivery	22 (14.7)	21 (14.0)	30 (20.0)	38 (25.3)	17 (11.3)	22 (14.7)
9	Positive feedbacks from customers	19 (12.7)	52 (34.7)	42 (28.0)	15 (10.0)	16 (10.7)	6 (4.0)

10	Error rate	0	20	24	36	47	23
		(0.0)	(13.3)	(16.0)	(24.0)	(31.3)	(15.3)

Source: Field Survey 2021

Table 4.3.2 above showed that majority of the respondents, i.e forming up to 30.7% of the total population strongly agreed that the work environment is relaxing and has a productive atmosphere. In the case of whether the workplace is ergonomically designed, 17.3% of the respondents which forms the majority agreed and another 17.3% partially agreed. The table also shows that majority of the respondents (23.3%) partially disagreed that there is conducive atmosphere with adequate air conditioning system in Graceco workplace/factory, followed by another group of respondents (24.0%) who agreed that conducive atmosphere with adequate air conditioning system is present. Also, majority of the respondents representing 30.0% of the respondents partially disagreed that proper lighting and noise conditions are provided in the workplace, 28.7% respondents which represents the majority strongly agreed that there is concern for health and wellbeing of staff in the workplace.

In addition, the table showed respondents' opinion on job performance in association to working environment. It can be seen from the table that majority of the respondents (43.3%) affirmed that good feedbacks from management is high in the organization. Also, majority of respondents affirmed that quality results (36.0%) is highly produced by employees, in addition, according to the respondents, on-time delivery is moderately low (25.3%) among employees. Also, majority of the respondents attested that there is high positive feedbacks from customers (34.7%). Meanwhile, majority of the respondents confirmed that employees' error rate is low (31.3%).

Table 4.3.3: Association between workers' health and workers' efficiency

	Workers' health	SA (%)	A (%)	PA (%)	PD (%)	D (%)	SD (%)
1	Employees are physically fit	42 (28.0)	44 (29.3)	43 (28.7)	11 (7.3)	7 (4.7)	3 (2.0)
2	High employee morale	34 (22.7)	25 (16.7)	43 (28.7)	23 (15.3)	16 (10.7)	9 (6.0)
3	Low risk of sustaining injury	27 (18.0)	28 (18.7)	29 (19.3)	22 (14.7)	25 (16.7)	19 (12.7)
4	Low risk of exposure to chemicals	32 (21.3)	35 (23.3)	35 (23.3)	25 (16.7)	13 (8.7)	10 (6.7)
5	Employees are mentally healthy	29 (19.3)	32 (21.3)	53 (35.3)	13 (8.7)	15 (10.0)	8 (5.3)
	Workers Efficiency	VH (%)	H (%)	MH (%)	ML (%)	L (%)	VL (%)
6	Problem solving skills	50 (33.3)	38 (25.3)	30 (20.0)	20 (13.3)	12 (8.0)	0 (0.0)
7	Value creation	56 (37.3)	49 (32.7)	29 (19.3)	16 (10.7)	0 (0.0)	0 (0.0)
8	Flexibility	39 (26.0)	36 (24.0)	30 (20.0)	28 (18.7)	13 (8.7)	4 (2.7)
9	Responsiveness	23 (15.3)	40 (26.7)	60 (40.0)	15 (10.0)	12 (8.0)	0 (0.0)

10	Communication	26	51	37	22	14	0
		(17.3)	(34.0)	(24.7)	(14.7)	(9.3)	(0.0)

Source: Field Survey 2021

Table 4.3.3 above showed that majority of the respondents (29.3%) strongly agreed that the employees of Graceco Nigeria Ltd are physically fit, most respondents only partially agreed that employees have high moral. The table also shows that majority of the respondents (19.3%) partially agreed that there is low risk of sustaining injury in the workplace. Also, majority of the respondents representing 23.3% and 23.3% of the respondents partially agreed and agreed respectively that there is low risk of exposure to chemicals in the workplace. It was confirmed that employees are mentally healthy, since, 21.3% of respondents agreed while 35.3% partially agreed. In addition, the table showed respondents’ opinion on workers’ efficiency in relationship with workers health. It can be seen from the table that majority of the respondents (33.3%) affirmed that problem-solving skills of employees is very high. Also, majority of respondents affirmed that value creation (37.3%), flexibility (26.0%) and responsiveness (36.0%) is very high, very high and high respectively. in addition, according to the respondents, on-time delivery is moderately low (25.3%) among employees.

Table 4.3.4: Association between workplace culture of safety and profit making of the organization

	Workplace culture of safety	SA (%)	A (%)	PA (%)	PD (%)	D (%)	SD (%)
1	Management prioritizes employee safety at all times	28 (18.7)	46 (30.7)	37 (24.7)	15 (10.0)	11 (7.3)	13 (8.7)
2	Employees are fully engaged in decisions that concern their safety at workplace	22 (14.7)	25 (16.7)	22 (14.7)	33 (22.0)	30 (20.0)	18 (12.0)
3	Safety-related policies and procedures are followed by employees and managers	28 (18.7)	43 (28.7)	50 (33.3)	19 (12.7)	10 (6.7)	0 (0.0)
4	Trainings on company's safety policies, procedures and practice	50 (33.3)	36 (24.0)	42 (28.0)	13 (8.7)	9 (6.0)	0 (0.0)
5	Employees understand safety measures and procedures	45 (30.0)	46 (30.7)	23 (15.3)	23 (15.3)	13 (8.7)	0 (0.0)
	Organization Profit	VH (%)	H (%)	MH (%)	ML (%)	L (%)	VL (%)
6	Quantity of goods sold	64 (42.7)	35 (23.3)	30 (20.0)	21 (14.0)	0 (0.0)	0 (0.0)
7	Profit margin	54 (36.0)	42 (28.0)	34 (22.7)	11 (7.3)	9 (6.0)	0 (0.0)
8	Increase in salary and wages	14 (9.3)	15 (10.0)	23 (15.3)	44 (29.3)	21 (14.0)	33 (22.0)
9	Incentives for employees	29 (19.3)	29 (19.3)	32 (21.3)	24 (16.0)	19 (12.7)	17 (11.3)

10	Injury/Illness cost	0	11	30	35	35	39
		(0.0)	(7.3)	(20.0)	(23.3)	(23.3)	(26.0)

Source: Field Survey 2021

Table 4.3.4 above presented the result of the frequency distribution of workplace culture and profit making of the organization. The table showed that majority of the respondents (30.7%) agreed that the management of Graceco Nigeria Ltd prioritize employee safety at all times, most respondents also partially disagree that employees are fully engaged in decisions that concern their safety at workplace. Furthermore, the result showed that most of the respondents (33.3%) partially agreed that safety-related policies and procedures are followed by employees and managers, followed by 28.7% respondents who also agreed to the use of safety-related policies and procedures. The table also shows that majority of the respondents (19.3%) strongly agreed that company organize trainings on safety policies, procedures and practice, 28.0% partially agreed. Finally, 30.7% which represent majority of the respondents agreed and attested that employees understand safety measures and procedures of the organization while 30.0% strongly agreed that employees understand safety measures and procedures.

Additionally, the table included employee responses on the organization's profitability in relation to its safety culture. As the table indicates, the vast majority of respondents (42.7 %) stated that the quantity of goods sold is very high. Additionally, the organization's profit margin is quite high (36.0%). However, respondents indicated that the organization's salary and wage increases are moderately low, while employee incentives are moderately high (21.3 %). Additionally, the organization's injury/illness cost is extremely low (26.0 %) as a result of the organization's safety culture.

4.4 Hypotheses Testing

4.4.1: Hypothesis One:

H₀: There is no significant relationship between safety equipment and employees' output.

H₁: There is significant relationship between safety equipment and employees' output

Table 4.4.1: Correlations

			Safety equipment	Employees' output
Spearman's rho	Safety equipment	Correlation coefficient	1.000	0.552*
		Sig (2-tailed)		.000
	Employees' output	Correlation coefficient	0.552*	1.000
		Sig (2-tailed)	.000	
		N	150	150

Source: Field Survey 2021

The result above indicated that there is a moderate positive correlation between safety equipment and employees' output with correlation coefficient "r" being 0.552. Therefore, the relationship or association between use of safety equipment in workplace and employees' output is relatively moderate. Also, the significant value (sig 2- tailed) "0.00" is lower than the p-value (p-value = 0.05). This implies that the moderate relationship observed between the two variables is

significant. Hence, null hypothesis is rejected, while alternative hypothesis is accepted. That is, there is a significant relationship between safety equipment and employees' output

4.4.2 Hypothesis Two

H₀: There is no significant relationship between working environment and employees job performance

H₁: There is significant relationship between working environment and employees job performance.

Table 4.4.2: Correlations

			Working environment	Job performance
Spearman's rho	Working environment	Correlation coefficient	1.000	0.615**
		Sig (2-tailed)		.000
	Job performance	Correlation coefficient	0.615**	1.000
		Sig (2-tailed)	.000	
		N	150	150

Source: Field Survey 2021

The result above indicated that there is a strong positive correlation between working environment and Job performance, with correlation coefficient "r" being 0.615. Therefore, the relationship between work environment of Graceco Nigeria Ltd and its employees' Job performance is strong

which indicated that maintaining and relaxing and conducive work environment will increase employees' job performance. Also, the significant value (sig 2- tailed) "0.00" is lower than the p-value (p-value = 0.05). This implies that the strong correlation between work environment and Job performance is significant. Hence, null hypothesis is rejected, while alternative hypothesis is accepted. Thus, there is a significant relationship between working environment and Job performance.

4.4.3: Hypothesis three:

H₀: There is no significant relationship between workers' health and efficiency

H₁: There is significant relationship between workers' health and efficiency

Table 4.4.3: Correlations

			Workers' health	Workers' efficiency
Spearman's rho	Workers' health	Correlation coefficient	1.000	0.751*
		Sig (2-tailed)		.000
	Workers' efficiency	Correlation coefficient	0.751**	1.000
		Sig (2-tailed)	.000	
		N	150	150

Source: Field Survey 2021

The result above indicated that there is a strong positive correlation between workers' health and workers' efficiency with correlation coefficient "r" being 0.751. From result, It can be seen that

management place optimum priority on employees health and this have direct positive impact on the workers' efficiency. Also, the significant value (sig 2- tailed) 0.00 is lower than the p-value (p-value = 0.05). This implies that the strong positive relationship observed between workers' health and workers' efficiency is significant. Hence, alternative hypothesis is accepted while null hypothesis is rejected. Therefore, an improvement in workers' health will lead to a significant increase in workers' efficiency.

4.4.5: Hypothesis four:

H₀: There is no significant relationship between workplace culture of safety and the profit made by the organization

H₁: There is significant relationship between workplace culture of safety and the profit made by the organization

Table 4.4.5: Correlations

			Workplace culture of safety	Organization Profit
Spearman's rho	Workplace culture of safety	Correlation coefficient	1.000	0.732
		Sig (2-tailed)		.000
	Organization Profit	Correlation coefficient	0.732	1.000
		Sig (2-tailed)	.000	
		N	150	150

Source: Field Survey 2021

The result above indicated that there is a strong positive correlation between workplace culture of safety and profitability of the organization with correlation coefficient “r” being 0.732. Therefore, the relationship between the Graceco workplace culture of safety and the organisation profitability is relatively strong. This is evident according to respondents. Also, the significant value (sig 2-tailed) 0.00 is lower than the p-value (p-value = 0.05). This implies that the strong relationship observed between workplace culture of safety and profitability is relatively significant. Hence, alternative hypothesis is accepted while null hypothesis is rejected, meaning that there is significant link between workplace culture of safety and profitability of organization.

4.5 Summary of the findings

In this section, the findings from the survey analysis of the Topic “The Influence of occupational health and safety on Industrial productivity in Graceco Nigeria Limited, Lagos State, Nigeria” would be discussed.

The general objective of the study is to examine the influence of occupational health and safety on industrial productivity in Graceco Nigeria Limited Lagos. The general objective is further subdivided into four specific objectives. The research makes use of a survey design in order to get information from selected respondents through structured questionnaire. The resulting data collected were then analyzed using descriptive statistics and inferential analysis which arrive at the findings. The findings from the study are presented as follows.

The research assessed the relationship between safety equipment and employees’ output. The findings showed that there is a significant moderate and positive relationship between safety equipment and employees’ output. This means that the use of safety equipment determines employees’ output. The findings agreed with Oxenburgh et al., (2014), who intimated that the health and safety of all employees is closely linked to the employees’ output in all workplaces

Researcher also investigated the relationship between work environment and job performance. Findings showed that there is a significant strong positive correlation between work environment and job performance. The kind of work environment determines the performance of employee. A conducive work environment will significantly increase the performance of employees and vice versa. Here, a high job performance is observed among employees due to good working environment. This corroborate the findings of Kahya (2010) who stated that unsafe working conditions, High workloads and workplace conditions such as excessive hot/cold, chemical smell, noise, bad lighting, vibration, and dust have direct and indirect influence on job performance of workers.

In the same vein, the research analyzed the relationship between workers' health and workers' efficiency. A strong positive correlation was observed with correlation coefficient "r" being 0.751. Also, the significant value was 0.000 which indicated that the relationship was significant. On that note, the null hypothesis was rejected. Workers health is directly proportional to their efficiency which means improved workers health or quality health care service for workers will directly increase their efficiency at work. According to Weeks et al. (2011), the work environment exposes many employees to health hazards that contribute to injuries, respiratory diseases, cancer, musculoskeletal disorders, reproductive disorders, cardiovascular diseases, mental and neurological illnesses, eye damage and hearing loss, as well as to communicable diseases, however, this study negates the findings of Weeks et al. (2010) as workers in Graceco Nigeria Ltd have low risk of sustaining injury and low exposure to chemicals and hence have increased efficiency.

Finally, the researcher analyzed the relationship between workplace culture of safety and the profitability of the organization. A strong positive significant relationship was observed between

the workplace culture of safety and the organization profitability. On this basis, null hypothesis was rejected, while alternative hypothesis was accepted. According to previous study, keeping a safety-first culture in the workplace will boost the profit of an organization by lowering the cost of illness and injury to employees.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter consists of the summary of the findings, conclusions as well as recommendations for the study. The general objective of the study is to examine the influence of occupational health and safety on industrial productivity in Graceco Nigeria Limited Lagos.

5.1 Summary of the Findings

This research is focused on the influence of occupational health and safety on industrial productivity, in Graceco Nigeria Limited Lagos. Specifically, the research examined the link between safety equipment and employees' output. assessed the relationship between work environment and job performance, it examines the association between workers' health and workers' efficiency and lastly, it examined the link between workplace culture of safety and the profitability of the organization.

In the analysis of respondent's demographics, it was found that majority of employees that participated in the survey were male, most of the employees were below 29 years, majority were single, many had only obtained school leaving certificate and the work experiences of majority of the employees are between 11-15 years.

According to the result of the poll among the respondents, there appears to be a significant relationship between safety equipment and employees' output. The relationship is moderate, positive and significant. The use of safe equipment among workforce will therefore influence employees' output. For instance, when safety equipment is used, it reduces the risk of sustaining injury thereby increasing the output of employees.

When it comes to the relationship between work environment and job performance, the findings reveal a strong positive and statistically significant relationship between the two variables,

according to the findings. When researchers looked into the relationship between employees' health and workers' efficiency, the findings revealed that improving workers' health will immediately boost workers' efficiency, proving that workers' health is key to their performance. In addition, there is a high correlation between workplace safety culture and the profitability of an organization, according to research. The fact that occupational health and safety is a top priority in many organizations is due to the fact that it contributes to higher levels of industrial productivity.

5.2 Conclusion

The study concludes that there is a relationship between safety equipment and employee output based on the findings. Additionally, the work environment has a substantial impact on employee performance. Similarly, there is a connection between worker health and worker productivity. Lack of concern for the health of workers will result in poor performance by employees, which will have a direct impact on the organization; consequently, it is critical for organizations to prioritize employee health and safety. To conclude, this study established that occupational health and safety have a sizable impact on industrial productivity at Graceco Nigeria Limited in Lagos.

5.3 Recommendations

Based on the results, the following recommendations have been made.

1. Organizations should supply safety equipment that meets industry standards, as advised by an approved HSE company.
2. To protect personnel at all times, continuous health, safety, and environmental (HSE) training and procedures must be maintained.
3. Management must place a high value on employee health and safety on the job.
4. No member of the organization (both employees and managers) should be allowed to disregard safety procedures and practices.

5.4 Contribution to Knowledge

This research adds to the growing body of knowledge regarding the critical role of health and safety in an employee's productivity. This study will lay the groundwork for expanding public knowledge of health and safety issues, as well as highlighting the shortcomings of the various tactics used by companies to improve health and safety standards. Additionally, the findings from this study will enable the government to evaluate organizations' health and safety practices, which will aid in the design of health and safety policies. This study would also stimulate other scholars to embark on further research.

5.5 Suggestion for Further Studies

Based on the results, the following suggestions are made for further studies

1. Impact of occupational health and safety on worker productivity in service Industry.
2. Factors affecting occupational health and safety.
3. occupational health and safety issues and worker productivity in selected construction companies.

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APPENDIX I
THE INFLUENCE OF OCCUPATIONAL HEALTH AND SAFETY ON
ORGANIZATIONAL PRODUCTIVITY
(A STUDY OF GRACECO NIGERIA LIMITED- LAGOS)

Dear Respondent,

I'm Okolo Solomon-- a 400-level student of Mountain Top University. I'm writing a project on the above-named topic in partial fulfilment of the requirements for the award of Bachelor of Science degree in Industrial Relations and Personnel Management. I will appreciate it if the questionnaire is completed to the best of your knowledge with utmost sincerity so as to achieve credible results. The information provided will only be used for academic purpose and will be treated with utmost confidentiality.

Please answer the questions by ticking the one you consider most appropriate among the alternatives. Thanks.

Kindly answer the following questions by ticking (✓) the option that best describes your agreement or filling the spaces provided.

SECTION A: DEMOGRAPHIC DATA

- 1) Gender; a. Male () b. Female ()
- 2) Age Range; a. 29 years and below () b. 30 - 39 () c. 40 - 49 () d. 50 - 59 () e. Above 60 ()
- 3) Marital Status; a. Single () b. Married () c. Divorced () d. Widowed ()
- 4) Educational level; a. Certificate () b. Diploma () c. Bachelors' degree () d. Master's degree () e. Doctorate degree () f. Others (Please specify)
- 5) How long have you worked for this organization? a. Below 5 years () b. 6 - 10 years () c. 11 - 15 years () d. 16 - 20 years () e. 21 years and above ()

- 6) What is your current position in the organization? a. Senior management () b. Middle management () c. Supervisory () d. General Staff () e. Others (Please specify)

Section B

Using the scale below, please answer the statement below by ticking the options that best satisfies your response to the following statements

Strongly Agree [SA]= 6; Agree [A]=5; Partially Agree [PA]=4; Partially Disagree [SD]=3; Disagree [D]= 2; Strongly Disagree [SD]=1

		SA	A	PA	PD	D	SD
	Safety equipment						
1.	Access to personal protective equipment when working in the factory						
2.	Employees always make use of protective equipment						
3.	Provision for adequate and new safety equipment in the workplace						
4.	Low accessibility of safety equipment						
5.	Low utilization of safety equipment						
	Working environment	SA	A	PA	PD	D	SD
6.	Relaxed and productive atmosphere						
7.	Ergonomically designed workplace/factory						
8.	Conducive atmosphere with adequate Air conditioning system						
9.	Proper lighting and noise conditions						
10.	Concern for health and wellbeing of staff						
	Workers' health	SA	A	PA	PD	D	SD
11.	Employees are physically fit						
12.	High employee morale						
13.	Low risk of sustaining injury						
14.	Low risk of exposure to chemicals						
15.	Employees are mentally healthy						
	Workplace culture of safety						
16.	Management prioritizes employee safety at all times						
17.	Employees are fully engaged in decisions that concern their safety at workplace						
18.	Safety-related policies and procedures are followed by employees and managers						

19	Trainings on company's safety policies, procedures and practice						
20	Employees understand safety measures and procedures						
Please rate the following statements on Industrial productivity by ticking in the appropriate box to indicate the degree at which the variables are high or low Very High(VH) – 6, High(H) – 5, Moderately High(MH) – 4, Moderately Low(ML) – 3, Low(L) – 2, Very Low(L) - 1							
Employees' output		VH	H	MH	ML	L	VL
21.	Target achievement						
22.	Ability to meet up to deadline						
23.	Ability to multitask						
24.	Flexibility						
25.	Abstinence						
Job performance		VH	H	MH	ML	L	VL
26.	Good feedbacks from managements						
27.	Quality Results						
28.	On-time delivery						
29.	Positive feedbacks from customers						
30.	Error rate						
Workers Efficiency		VH	H	MH	ML	L	VL
31.	Problem solving skills						
32.	Value creation						
33.	Flexibility						
34.	Responsiveness						
35.	Communication						
Organization Profit							
36	Quantity of goods sold						
37	Profit margin						
38	Increase in salary and wages						
39	Incentives for employees						
40	Injury/Illness cost						