

UNIVERSITY OF CAPE COAST

**WORK ENVIRONMENT AND EMPLOYEE PERFORMANCE:
EVIDENCE OF UNIVERSITY OF HEALTH AND ALLIED
SCIENCES, VOLTA REGION, GHANA**

ERNEST WORLANYO HODOWU

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VOLTA REGION, GHANA

BY

ERNEST WORLANYO HODOWU

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Business Administration degree in Human Resource Management.

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of this work has been presented for another degree in this university or elsewhere.

Candidate's Signature..... Date.....

Name: Ernest Worlanyo Hodowu

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines and supervision of dissertation laid down by University of Cape Coast.

Supervisor's Signature: Date.....

Name: Mrs. Edna Okorley

ABSTRACT

Employee welfare at the work place has become an important topic for discussion in human resource development literature. There is a teaming effort by both public and private organisations to improve the quality of their work environment. However, literature and a cursory observation of general work environment shows a state of poor work environment which cause constant employee agitations. Consequently, this study sought to investigate the effectiveness of work environment practices and the extent to which they influence job performance of employees. The first objective examined the effectiveness of work environment practices. The second objective examined the extent work environment practices affect performance of employees at University of Health and Allied Sciences. The study employed a quantitative survey design and a semi-structured questionnaire as a primary data collection instrument. A simple random sampling technique was used to sample 210 junior and senior staff for the study. The study result showed a significant relationship between work environment and performance of employees at the university. The study recommends that staff must ensure a moderated level of noise, avoid tribal and ethical comments in order to ensure cordial work environment. Supervisors, management and leadership of the university must ensure that employee roles are clearly defined, provide them job descriptions and provide feedback on their performance.

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DEDICATION

To my father, Mr. Edward Kwaku Hodowu.

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LIST OF ACRONYMS

ANOVA	One-Way Analysis of Variance
AVE	Average Variance Explained
CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
PDA	Preliminary Data Analysis
SPSS	Statistical Package for Social Sciences
UHAS	University of Health and Allied Sciences
WEP	Work Environment Practices

CHAPTER ONE

INTRODUCTION

This current chapter of the study presents the general background of the issue under investigation. The chapter further presents the problem the researcher sought to investigate the purpose of the study, research objectives, research questions, hypotheses of the study and delimitations. The last subsection of the study presents how the entire work is structured.

Background to the Study

In the last decades, the global work environment has become very competitive due to the scarcity of quality human resource (Samson & Swanson, 2015). Even though customers are topmost assets of an organisation, human resource is also regarded as the valuable, fundamental and most priced assets of the organisation. While human resources remain fundamental agents to an organisation, factors that drive them have equal relevance to their performance.

Some studies have noted that money alone cannot motivate employees; businesses across the globe have invested substantial sums of their financial resources to improve other motivation factors such as the work environment (Mathews & Khann, 2015). This is because employees spend major part of their life hours working for their organisations, which put their lives at risk (Weerarathna & Geeganage, 2014). Due to the long hours that employees spend in the organisations, it is not always the case that they will achieve best performance. This is because, many factors such as the quality of office,

working tools, ventilation among others influence the level and quality of performance (Samson & Swanson, 2015).

The concept “work environment” has been defined in various contexts but a general description according to Awan and Tahir (2015) is the location where people work together to achieve the objectives of an organisation. Work environment may also refer to a positive and negative state of mind of an employee, immediate surroundings, behavioural procedures, policies, rules, culture, resources, work relationships and location (Abd Hamid & Hassan, 2015; Heath, 2006). All these systems, processes, structures and tools interact with employees which directly and indirectly affect their performance in a positive or negative manner (Awan & Tahir, 2015).

These physical and social factors include supervisory support and job aid, while physical factors include level of noise, office layout and design, furniture, lighting and ventilation (Naharuddin & Sadegi, 2013; Arsalani Fallahi-Khoshknab, Ghaffari, Josephson & Lagerstrom, 2011; Samson & Swanson, 2015). These factors within the work environment bring the meaning of the surrounding to influence the work (Abd Hamid & Hassan 2015).

Again, proper work environment reduces absenteeism among the workforce, increase employees’ performance and productivity at the workplace (Boles, Pelletier & Lynch, 2004). Favorable work environment factors such as good leadership and good ventilation also guarantee the wellbeing of employees which help them to involve more in their roles with all energy, hence, improve their performance (Taiwo, 2010). While issues of workplace quality and performance have received attention on the global

stage, it is not surprising there are similar growing interests in African countries (Bushiri, 2014).

According to Marpady and Singhe (2009) employee performance is the extent to which an employee's work output and outcomes meet the expected result. Scholars have found that employees work hard when they are well motivated, provided with the relevant tools and support from management. Several measures such as: work quality, efficiency, output and innovation have been used to measure performance of employees (Marpady & Singhe, 2009).

The new challenge for organisations is to create a work environment that attracts, keeps, and motivates the workforce to maximize their work quality, efficiency and innovation at the workplace (Marpady & Singhe, 2009). Managers must understand how to create a work environment where people enjoy what they do, feel like they have a purpose, have pride in what they do, and can reach their potential in their organisation (Sehgal, 2012). Employees who are able to reach their potential at the work place work hard to improve work quality, reduce errors and improve efficiency. Issues of employee work environment have received magnanimous attention among various stakeholders such as labour unions and pressure groups in Ghana (Sehgal, 2012).

Civil society groups and international organisations demand implementation of disability friendly work environment, proper and cordial work relations among others. A cursory view of Human Resource practices at UHAS shows that, work environment issues in the Ghanaian business environment is however not different from the workplace practices at UHAS.

A careful look at the Human Resource (HR) policies shows that managements have implemented several policies including disability friendly work environment, quality surrounding, modern office layout and designs and proper ventilation. However, there appears to be lack of consistency and regular maintenance of work environment, causing several challenges during working period (Sehgal, 2012).

This study is worth pursuing because the finding provides a clear perspective on quality work environment at UHAS and also in other similar public sector organisations. Specifically, the study examines diverse workplace factors and how they influence work quality, innovation, efficiency and effectiveness of organisation's critical assets. The researcher contributes to this growing debate by providing more empirical findings on the contemporary factors that promote effective work environment.

Statement of the Problem

In recent years, employee's comfortability at workplace represents an important factor to boost the performance of employees (Leblebici, 2012). However, in practice, work environment of many industries is unsafe and unhealthy due to poorly designed workstations, unsuitable furniture, lack of ventilation, inappropriate lighting, excessive noise, insufficient safety measures and lack of personal protective equipment (Chandrasekar, 2011). Even though several studies (Afenyo, 2012; Abd Hamid & Hassan, 2015) have been done to investigate the effect of unsafe work environment on employee performance these studies are yet to identify how each of the work environment practices influences performance of employees.

Some authors (Taiwo, 2010; Samson & Swanson, 2015; Awan & Tahir, 2015) even argue that the performance of employees is not about the existence of good environment but how effective they are. In view of this Tetteh, Asiedu, Odei, Bright-Afful and Akwaboah (2012) advocated for further studies to examine the effectiveness of work environment practices in enhancing employee performance.

Over the years, employee performance has fallen because the work environment has become unfavourable, leading to employee's engagement and disengagement (Leblebici, 2012). Studies have attributed the downturn of employees to several factors such as motivation (Khan, Aslam & Lodhi, 2011); leadership style (Ojo, 2010) and resources (Kavanaugh & Ninemeier, 2011). Very few studies have examined how work environment influences performance of employees (Dar, 2010; Gutnick, 2007; Haggins, 2011). Few studies in examining the effect of work-environment on employee performance have yielded inconclusive results regarding whether physical factors or psychosocial factors have a significant influence on performance of employees (Janakiraman, Parish & Berry, 2011).

According to Boyce, Veitch, Newsham, Myer and Hunter (2013), there is the need for further investigations to examine these important work environment practices and how each of these practices influence employee performance. The increasing concern for quality work environment has further been compounded due to changes in several factors such as social environment, information technology and the flexible ways of organizing work processes (Bushiri, 2014; Hasun & Makhbul, 2005; Sehgal, 2012). With the advent of technology, organisations are faced with a new trend of

challenges to find alternative ways to create a quality workplace using quality plants and machinery, ergonomics designs and technological equipment such as efficient lightning and computers (Lebleici, 2012) to promote employee satisfaction (Wells, 2000).

Leblebici (2012) further noted that, organisations have been exposed to technological and ergonomics advancement which have affected their work environment in relation to poor safety, health conditions and discomfort issues such as improper lightening, poor ventilation and excessive noise. Many organisations employees mostly encounter physical workplace factors that affect their level of engagement and commitment to the organisation (Leblebici, 2012). It is necessary for human resource studies to identify the contemporary workplace issues and their relationship with performance of employees, hence this study.

In this regard, this study investigates contemporary work environment practices that affect employee performance in a higher educational sector. Samson and Swanson (2015) revealed that non-teaching staff in the educational sector in the African countries have also expressed concerns about their work environment because the work environment promotes their wellbeing and performance. From a cursory view, the researcher is yet to identify a study on work environment practices and employee performance at the University of Health and Allied Sciences. Over the years, management of the UHAS has attempted to develop effective workplace practices to boost performance of employees.

However, there appears to be negative sentiments among a section of employees regarding the effort of management to provide effective sanitary

conditions and physical structures. These sentiments have cumulated into a syndrome where some employees leave their work to other office facilities to access physical facilities that are non-existent at their facilities. This study is therefore an attempt to examine how the work environment practices of the university has impacted on the performance of employees.

Purpose of the Study

This study aims at understanding and obtaining insights of work environment practices at UHAS and how they influence performance of employees.

Research Objectives

Specifically, the study sought to:

1. assess the extent of effectiveness of work environment practices at UHAS.
2. investigate the influence of physical work environment factors and performance of employees at UHAS.
3. examine the influence of psycho-social work environment factors on performance of employees at UHAS.

Research Question

The study was guided by a research question.

1. How effective are work environmental practices at UHAS?

Research Hypothesis:

The study tested the following research hypothesis.

H₁: There is a positive significant relationship between physical work environment factors and employee performance

H2: There is a positive significant relationship between psycho-social work environmental factors and employee performance.

Significance of the Study

The research findings are important for management of the university to improve the performance of employees towards enhancing the overall performance of the university. By this, the study provides specific work environment practices to help policy decisions of the University on how to improve performance of their employees. Knowledge from the findings serves as important information for human resource executives, agencies and practitioners to understand the various work environment practices and which of the practices is most important to improve performance of employees and the organisation at large.

Secondly, the findings from this study would serve as reference material for individuals, councillors and psychologists of universities towards improving work on employees. The finding is also relevant for pressure groups and civil organisations in their attempts to demand improved work conditions from employers. Findings also serve as a reference material for future studies in this area.

Delimitation

This study sought to investigate the effect of work environment practices on employee performance. Basically, the study seeks to find out whether work environment factors: physical and psycho-social factors influence performance of employees. Even though the researcher aims to generalize the findings to all employees, collection of data is concentrated on

only employees of UHAS. The researcher did not consider all employees in the university as well as employees in other universities.

Limitations

Despite the contributions of this study to knowledge, the study has some limitations. The researcher could not administer questionnaires to all employees of the university. However, this limitation mentioned did not affect the results of the study because the sample of employees is a representative of the entire employees with the same characteristics. Quantitative research methodology which was used in this study requires a large sample size. However, due to lack of resources and exigencies of time, the researcher could not use a large sample size.

In addition, the researcher could not control the environment where the respondents provided answers to the questions in the survey. This was because some respondents completed the questionnaires during working hours and this could affect their responses as they would be in a hurry to complete the questionnaires and focus on their official duties.

Organisation of the Study

The study was organised into five chapters. Chapter one, which was the introduction gave the background of the study, statement of the problem, research objectives, research questions and hypothesis. The chapter further discussed the significance of the study, delimitations, limitations and organisation of the study. Chapter two reviewed related literature from the empirical and theoretical perspectives on concept of work environment, work environment practices (physical and psycho-social) and the relationship between work environment and employee performance. The chapter

concluded with some empirical findings and a conceptual framework. Chapter three provided an in-depth explanation of the methodology of the study. Chapter four presented the results and discussion of the findings while chapter five focused on the summary, conclusions and recommendations for policy making and regulations and future research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter of the study presents review of literature. The chapter reviews literature on the concepts of work environmental, work environment practices and employee performance. This chapter also reviews Herzberg motivation theory as the theory which underpins the research. Empirical review on the relationship between work environmental practices and employee performance is presented after theoretical review. The study concludes the chapter with a conceptual framework and the hypotheses.

Theoretical Review

The theoretical foundations of this study represent the Herzberg Hygiene/ Motivation Theory. Frederick Herzberg (1968) proposed a well-known Two-Factor Theory also known as the Motivator-hygiene. The Herzberg Two Factor theory assumes that all employees in an organisation have the same set of needs and therefore allowing the organisation to predict the factors that must be present at the job (Yusoff, Kian & Idris, 2013). Motivation-hygiene theory explains that people work in their own self-enlightened interest, and they become happy when they are able to accomplish their task. The theory implies that there are two set of factors known as hygiene factors and motivation factors or satisfiers, which affect employee's working attitudes and level of performance named Motivation-Hygiene Factors (Robbinson, 2009).

The hygiene factors are often referred to as dissatisfiers and the motivators classified as satisfiers (Bradley, 2003). The central argument of the

Herzberg's theory is that, when employees meet the lower-level needs (extrinsic, hygiene factors) they will not be motivated to exert more effort but will only prevent them from dissatisfaction (Yusoff *et al.*, 2013). Yusoff *et al.* added that in order to motivate employees, higher level needs (Intrinsic or motivation factors) must be provided and catered for in the organisation. The primary difference between motivator factors and hygiene factors is that, where the motivator factors result in positive satisfaction, the hygiene factors on the other hand prevent any dissatisfaction from the employee.

Herzberg argues that, eliminating the cause of dissatisfaction (through Hygiene factors) would not result in satisfaction for employees instead result in a neutral state. Herzberg's Motivation-hygiene theory explains that motivators (satisfiers) are elements in the work place that include: recognition, work responsibility and advancement, challenging work which gives positive satisfaction. The motivation factors are intrinsic to the job content and the factors are responsible for adding more meaning to the job. On the other hand, the hygiene factors referred to as 'dissatisfiers' include; supervision, interpersonal relations and working conditions.

Locke and Lathan (1990) added that, hygiene factors include; pay and salaries, company policies and administrative policies, physical working conditions, status, interpersonal relations and job security. The contribution of the Herzberg's theory to this study is that, there are various factors that affect employee performance. Motivation represents one of the key factors affecting employee's performance and therefore management must provide both physical and non-physical factors to motivate employee hence improve performance. Organisations must supply both intrinsic and motivation factors

to spur employee performance (Robbinson, 2009). When employees are satisfied with both intrinsic and motivation factors and also working environment is improved, it reduces complaints and absenteeism while increasing productivity (Roelofsen, 2002).

The theory further contributes to an insight into the study of employees by espousing the ‘dissatisfiers’ and “satisfiers’ effect on work environment on employee individual performance (Samson & Swanson, 2015). Herzberg’s theory has some criticisms. One important criticism of this theory is that, the theory omitted other behavioural criteria such as performance, absenteeism and labour turnover (Afenyo, 2012). Oldham and Hackman (1976) also noted that, the theory does not allow for individual differences such as particular personality traits, which would impact on individual’s unique responses to motivating or hygiene factors. In view of this, the study sought to test the effect of respondent’s characteristics on the relationship between work environment practices and employee performance. The researcher therefore adopts the Herzberg theory to underpin this study.

Concept of Work Environment

In a general parlance, the work environment has received high attention among scholars resulting in multiplicity of definitions of the concept of “work environment”. Over the years, scholars have expressed several views to describe the concept of work environment. According to Bushiri (2014), work environment is the sum of the interrelationships that exists within employees and the environment in which they work. Similar to the definition of Bushiri (2014), Haynes (2008) also defined work environment to comprise of the immediate surroundings that fulfil the intrinsic, extrinsic and social

needs as well as the reason for an employee to continue staying with the organisation. In the works of Rezaul (2014), he conceptualised employees work environment as the surroundings of a place of occupation which include inside, outside, at a desk and in a cubicle. There appears to be a consensus in the definitions above to the effect that work environment comprises of two elements; employees and the surrounding of the work place.

Quite apart from the two main elements established so far, Opperman (2002) also noted three main strands in work environment which includes: technical environment, human environment and organisational environment. Opperman explained that, technical environment comprises the tools, equipment, technological infrastructure and other physical elements. Human environment refers to peers, team and work group relationships, leadership and management interactional issues.

Bowler and Brass (2006) added that, good relations among co-workers provide a sense of identity, support and friendship to other individuals. Issues of trust at the workplace also influence the work behaviours of employees for higher performance (Dar, 2010). Opperman further added that, trust in the work environment system; procedures, practices and philosophies provide support for employee performance. It is interesting to note from the definitions above that, there is no consensus on the specific description of work environment practice. However, important element such as interaction between work and the environment remain vital in the description of work environment.

The inconsistent description of work environment affords the researcher to adopt the definition of Ollukkaran and Gunaselan (2012), who

defined work environment as the processes, systems, structures, tools or conditions in the work that impact positively or negatively on employee performance. They added that work environment may also include policies, rules, culture, resources, work-relationships, work location, and internal and external environment factors that influence employee performance. To understand the critical importance of work environment in the organisation is to recognize that the human factor and the organisation are synonymous (McGuire & McLaren, 2009). Thus, the issue of organisational work environment and its influence on employee's productivity, performance is paramount (Heath, 2006). The next session identifies and reviews literature on the factors that constitute work environment.

Work Environmental Factors

Emerging studies are inconsistent on the specific factors that define work environment (Bushiri, 2014; Boyce *et al.*, 2013). For instance, literature identified some common work environment factors affecting employee performance. These factors include lighting (Boyce, *et al.*, 2013), noise, communication and psychology support (Abd Hamid & Hassan, 2015). Work environmental factors either from inside or outside the organisation that can have a positive or negative effect on employee's performance (Roelofsen, 2002). According to Abdulla *et al.* (2010), workplace factors also involve employees' authority, autonomy, relationship with supervisors and co-workers, skill and other working conditions. Similarly, Sekar *et al.* (2011) added that other workplace factors such as work relationships, workplace and working tools are all integral part of employees' performance.

Generally, studies by Mehboob and Bhutto (2012) found a comprehensive concept of work environment factors to include physical, psychosocial and social aspects of working condition. Arsalani et al. (2011) classified the domain of work environment into two main parts: physical and psychosocial factors. These factors have been found to influence employee performance (Boyce, et al., 2013; Kohun, 2002; Leblebici, 2012). The study therefore discusses the physical and psychosocial factors as the two main construct for the study.

Physical Work Environment Factors

According to Samson and Swanson (2015), physical work environment describes office layout and design. Muttiah, Santosh and HRD (2011) explained physical work environment centres around two major dimensions including personal motivation and the infrastructure status in the working environment. In a contemporary business working environment, the physical environment has expanded to include building design, workplace layout, furniture and equipment design, set-up, space, temperature, ventilation, lighting, noise, vibration and air quality (Sarode & Shirsath 2014; Stup, 2003) spatial layout and functionality of the surroundings (Kohun, 2002). A cursory look at literature reveals that, office layout and design, ventilation intensity and lighting and noise intensity remain common among the physical workplace factors.

Office layout and design

Office space/design is one of the leading physical aspects that influence employee's performance (Chandrasekar, 2011). Office layout can be described as the spatial arrangement of furniture and equipment (Keeling &

Kallaus, 1996) such as desks, chairs, filing system, shelves, drawers and have a specific role to play in the proper functioning of the office and performance of staff. Challenger (2000) added the symbols in the office to connote meanings and images about organisations and how employees are to be engaged in the organisation. Dorman (2008) added that, even informal seating arrangements, such as chairs placed at right angles facilitate social interaction, whereas formal seating arrangements such as chairs placed back-to-back discourage social interaction.

Other ergonomic facilities such as; adjustable office furniture, desks and chairs allow employees to work comfortably throughout the day (Burke & Ng 2000). This is particularly important for those employees who tend to work for long hours on the same station and comfort is paramount for optimum performance (Gutnick, 2007). According to Al-Anzi (2009) good office design layout encourages employees to work by making sure employees have all that they need to work. Becker (2002) added that, other minor workplace features such as size of individual workplace furniture surfaces also affect employee performance and they go beyond just office design alone.

Work environment that has appropriate work space and design, correct, updated and well-working equipment to work will have a much more positive attitude about work than those who are dealing with frustrating and broken equipment and furniture (McGuire & McLaren, 2009). However, in the absence of relevant ergonomics, office furniture can lead to physical and psychosocial health complications for the employees, which will adversely affect performance. In effect, if all factors surrounding the employee are

ergonomically good, the employee will be comfortable, encouraged and motivated to work and improve performance.

Ventilation intensity and lighting

Another important physical workplace factor is the lighting and ventilation systems in the organisation. In every entity, the ventilation systems in the office have to meet some requirements in order to enhance work performance. According to Sehgal (2012), recent discovery has shown that light has an impact beyond merely helping employees with their visual directions. Doman (2009) noted that an office indoor air must be pure, temperature, humidity and air velocity must be at the appropriate level in order to create good atmospheric working environment. According to Lan and Lian (2010) employees in offices feel slightly uncomfortable and less motivated in both the coolest and warmest temperatures and they also experience their workload as more difficult affecting their productivity.

A blend of both the artificial indoor and natural outdoor lighting will give a sense of energy and affect the mood of employees. One best example of benefit of lighting in productivity is the Hawthorne effect (Lan & Lian, 2010). The Hawthorne effect was an experiment to study the effect of physical condition on productivity and performance. The Hawthorne set the individual in a social context establishing that, the performance of employees is influenced by their surroundings, people around and individual own innate abilities (Lan & Lian, 2010). For instance, studies have found that, temperature has an influence on office employees and their performance in the office (Hasun & Makhbul, 2005; Sehgal, 2012). Consequently, Moloney

(2012) found that 3-18 percent of employees increase their productivity between 0.2 and 3 percent in offices with natural day-lighting system.

This also explains that, when employees are allowed to accomplish their work with less or dim light it leads to eye strain and thus causing headaches and irritability. Due to this discomfort, productivity is very much affected causing overall decrease in employee's performance (Gutnick, 2007).

Noise intensity

Noise at the workplace is one of the most frequently forgotten work environmental pollutants whose effect can be far-reaching (Sehgal, 2012). In a general perspective, workplace noise represents an unpleasant sound or sound phenomenon, which in certain intensity causes an uncomfortable feeling and also affects mental and physical condition hence reduce performance (Sundstrom, Town, Rice, Osborn & Brill, 1994). Not only noise emanating from within the environment but also, noise can also be a physical agent from the environment; from natural or anthropogenic origin and may be present only in the workplace or outside the work environment (Samson & Swanson, 2015). However, Sundstrom et al. (1994) asserted that, noise in the workplace, predominantly from others talking, is cited as being distracting by over 75% of workplace users.

There are various sources of noise pollution including: vehicular traffic, occupational settings, working sites or even the noise of simultaneous conversations (Sehgal, 2012) and even in African setting where people can unleash loudspeakers to disturb the neighbourhood in the name of religion or just for fun. Sundstrom *et al.* (1994), however, argued that while a particular workplace may consider a sound to noise the other may not give the same

volume of the sound. In effect, Sehgal (2012) observed that, physical work environmental factors such as noise can cause stress, headache, and fatigue which prevents employees from discharging their required duties in the workplace. Even though studies are very limited on the effect of work-environment practice and performance of education staff, Samson and Swanson (2014) noted that, workplace noise is a pervasive problem in working environments with an obvious risk of hearing damage, poor concentration, performance, behaviour and general well-being.

Psychosocial Factors

The second construct in this study is the psychosocial factors of work environment which is considered to be one of the most important issues in contemporary and future businesses and society. Psychosocial factors generally refer to the interactions between the environment and organisational and working conditions, work functions and content of the work, effort, workers' individual personal and family characteristics (Vischer, 2008). Samson and Swanson (2015) found workplace psychosocial factors to include social support; role ambiguity and working conditions. Following the finding of Warr (2002), the study reviews literature on: supervisor support, role congruity, and leadership styles as psychosocial workplace factors.

Supervisor support

The first indicator in psychosocial factor in work environment is supervisor support. Supervisor's support in every working environment is helpful in developing a working environment that leads to increase employee productivity (Awan & Tahir, 2015). Supervisor support is defined as the degree of support and help that supervisors give to their employees to perform

their work duties (Janakiraman, et al., 2011). According to Abdullah et al (2010), it is important for work environmental factors to include authority, autonomy and importantly relationship with supervisors. In every organisation a supervisor must be a first level manager and a leader who is experienced, a role model and can solve leader employee and firm level problems (Nijman, 2004).

According to Bauer and Green (1996) in order for employees to give out their maximum work performance, both leadership and employees must play their roles through relationships to enhance work performance. Employees play their roles by applying their abilities, skills and knowledge, while the supervisors support, provide direction of standards and expectations, feedback, incentives and task support. More importantly, when leadership support fails in the organisations, there is the high tendency that, employees will find it very difficult to manage their workload, duties and responsibilities. Literature is however consistent that productivity of employees will increase by keeping working conditions and working environment up to certain threshold level and subsequently will decrease if work load increases from above certain threshold level (Ali, Ali & Adan, 2013).

As part of the task support roles provided by supervisors, supervisors must also train employees, coach, mentor new and old staff (Rabey, 2007). In effect, when supervisors and employees decide to show full commitment to the cause of the work and the organisation, it will eventually lead to positive result and performance from the employees. Haggins (2011) concludes that any social support which is part of work environment represents the key to increasing organisational commitment and also improve job performance.

Role congruity

The second indicator in psychosocial factor of work environment is role congruity. In every organisation, new and existing employees begin to form personal expectations regarding the roles and the reward that they will receive. Mostly, organisations' expectations from employees are mostly perceptions and unknown to the employees unless such employees are engaged. From the organisation's perspective, role expectations are typically written down in formal documents, such as job design, job descriptions and role specifications. The job description represents a written form of statement that explains the scope, duties and responsibilities associated with the job that the employee is expected to perform.

A job description helps to ensure effective performance and provides a clear guide to all that are involved in the position, its requirements and expected outcomes (Kavanaugh & Ninemeier, 2011). Due to the social, economic and political changes, Job descriptions are susceptible to constant changes and shifts. Arnold (2007), identified such environmental changes as organisational restructuring, growth, cutbacks and reassignments that have a direct impact on job descriptions (roles) and employee performance. Organisations must help identify possible overlaps or gaps between jobs due to the changes in the environment. Organisations that fail to identify the effect of environment changes on the roles of employees will create poor workplace health which will eventually affect the performance of the employees.

Leadership style

Thirdly, the study discusses the leadership style as the third psychosocial workplace factors. Generally, the style of managing and leading

an organisation differs across nations, industries, sectors and personalities. Leadership represents an interaction between leaders and employees where the leaders' control and direct the employees in an attempt to influence and direct their actions towards a specific end and/to achieve high performance (Northouse, Katapodi, Song, Zhang, & Mood, 2010). According to Kavanaugh and Ninemeier (2011), three factors are critical to determining the type of leadership style that a leader will adopt. These factors may include leaders' characteristics, subordinates' characteristics and the organisation's environment. A more specific description such as the personal background of leaders such as personality, knowledge, values and experiences affect the leadership style that a person will adopt.

There are differences in leadership styles and the type of leadership style determines the level of interaction between the leader and the employee at the workplace. Taylerson (2012), asserted that, when the organisation is beamed with the right positive atmosphere and leadership, the workplace becomes enjoyable with less stress, which in turn provides good attitude and performance from the employees. Consistent with earlier assertions, employees on the other hand also have different personalities, backgrounds, expectations and experiences that will determine the type of leadership style that will help them perform better. For instance, employees who are more knowledgeable and experienced will best fit for a democratic leadership style, while staff with diverse experiences and expectations will best fit for an autocratic style of leadership.

In some organisations, other factors such as organisational climate, organisational values, composition of work group and type of work can also

influence the type of leadership style that the leader must adopt to gain high employee performance (Chen & Silverthorne, 2005). In effect, leaders in any organisation must balance their preferences that best fit their staff or subordinates and can also spur the highest level of performance from the employees. The next session of this study discusses the relationship between work environment and employee performance.

Work Environment and Employee Performance

Awan and Tahir (2015) investigated the impact of working environment on employee's productivity at banks and insurance companies in Pakistan. The basic objective of this study was to measure the impact of working environment on productivity of employees of selected banks and insurance companies in Pakistan. The researcher used closed ended questionnaires and used different statistical methods to analyse the research data. The study found that work environmental factors such as; supervisory support, relation with co-workers, training and development, attractive and fast incentives and recognition plans, adequate work load have positive impact on employee's level of productivity in the organisations. An empirical study by Samson and Swanson (2015) investigated the effect of work environment on the performance of Bank employees in Nakuru Town in Kenya.

The study sought to establish the extent to which physical workplace factors, psychosocial factors and the work life balance factors affect performance. The study employed 736 non-managerial banking staff using stratified random sampling with probabilities proportional to the size. The study found that physical workplace factor aspects did not have a significant

effect on employee performance while the psychosocial and work life balance factors significantly affect employee performance.

An empirical study by Abd Hamid and Hassan (2015) examined the relationship between work environments and civil servants' job performance. This survey-based correlation study using a simple random sampling technique where 150 respondents were selected from 10 government offices. Questionnaires were personally distributed with 100 percent rate of return. The data gathered was analysed using Statistical Package for Social Science (SPSS) through descriptive statistic and Pearson Product Moment Correlation test. The findings found that two major elements in the workplace; work environment and job performance have a weak association. The finding of this study is very critical since it can help the employers in improving the worker satisfaction especially through adjusting the work environments in which as a result will increase the level of their job performance.

A study by Ajala (2012) investigated the influence of work environment on workers welfare, performance and productivity. The study analysed the influence of work environment on workers welfare and productivity in government parastatals in Ondo State, Nigeria. The random sampling technique was used to select 350 respondents. The results of the study showed that workplace lighting programme, noise features and good communication network at workplace have effect on worker's welfare, health, morale, efficiency, and productivity.

The study was consistent with the study by Matthews and Khann (2015) who concluded that adequate lighting system, noise, furniture, as well as temperature can impact employees both physically and psychosocially.

Hameed and Amjeed (2009) also found similar conclusions that, accomplishing daily work tasks with dim lighting system causes eyestrain, headaches and irritability. Tetteh *et al.* (2012) investigated, work environment and employee's performance of Produce Buying Company in Kumasi. Descriptive sample survey was used to carry out the study. Simple random sampling technique was used to select the respondents for the study. The study revealed that, work environment affects employees at Produce Buying Company.

The study was consistent with Chandraseker (2011) who confirmed that unsafe and unhealthy work environment in terms of poor ventilation, inappropriate lighting, excessive noise etc. affect workers' productivity and health. Hameed and Amjad (2009) surveyed 31 bank branches and also found that, comfortable and ergonomic office design motivated the employees and increased their performance levels to highest levels.

An empirical study by Ali, Ali and Adan (2013) in Mogadishu, Somalia investigated the relationship between working condition: Working hours and Workload on employee's productivity and whether there is a relationship between working condition and employee's productivity in Mogadishu manufacturing industry. Using purposive sampling, the researcher selected 150 workers of the company as respondents. Data was analysed using SPSS. The study found that, there is a positive relationship between working condition and employees' productivity, working hours, and workload lead to high level of employee performance and productivity. This is consistent with the study by Taiwo (2010) who found that, 70.49 percent of study

respondents, agreeing that, conducive and better working environment are the factors that can lead to high employee performance.

Conceptual Framework

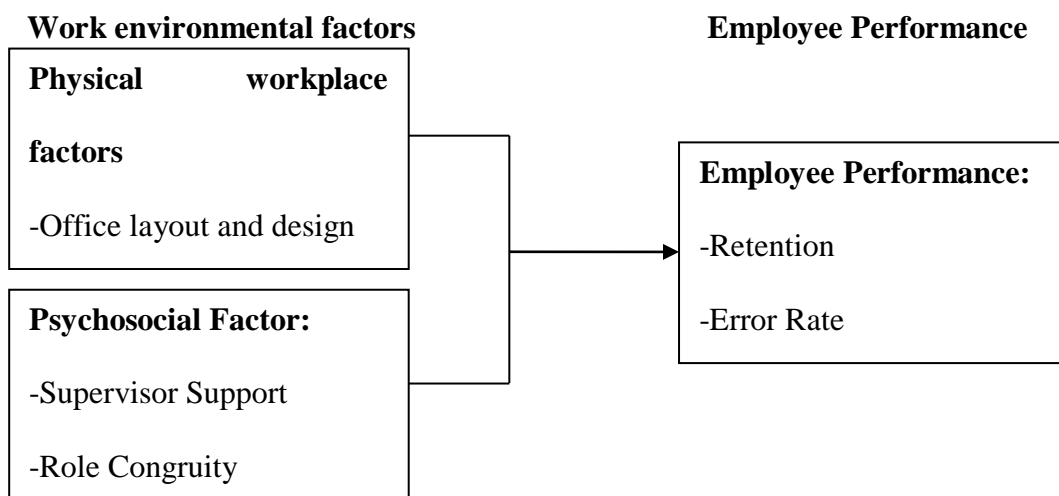
The variable for workplace environment practices are adopted from the work of Arsalani *et al.* (2011) who classified the domain of work environment into two main parts: physical and psychosocial factors. The authors classified work-environment practices into physical factors and psycho-social factors have been adopted as the independent variables. Physical factors include office layout and design, lighting and ventilation, and noise (Arsalani *et al.*, 2011) while psycho-social factors have been conceptualized as supervisors support, role congruity and quality of leadership (Arsalani *et al.*, 2011). Similar study by Samson and Swanson (2015), also found that in every organisation, physical work environment contextualizes the office layout and design while psychosocial factors include working condition, role congruity and social support from supervisors.

Several factors of work environment may lead to the level of job performance and one of them is job satisfaction (Arman, Mastura, Shardy & Samsiah, 2008). Happy employees are those who are satisfied with their jobs, and they are likely to be better performers in the organisations (Fisher, 2003). When employees are satisfied and committed to the organisation with physical work environment, it will improve their performance and ultimately productivity levels (Challenger, 2000). The researcher therefore conceptualizes that when employees are served with improved work environment (office layout and design, lighting and ventilation, supervisors

support, role congruity and quality of leadership), they become satisfied and motivated. Consequently, employees are able to perform well on their job.

Employees are able to increase their output, reduce mistakes and errors, and improve efficiency and effectiveness at the workplace. The Figure 1 shows the conceptual framework for the study.

Figure 1: Conceptual Framework on the Relationship between Work Environment, and Employee Performance.



Conceptualisation of study variables

From empirical and theoretical perspective, the study measures six factors as independent variables: office layout and design, lighting and ventilations, noise, supervisor’s support, role congruity and leadership style. This study therefore measures employee performance as dependent variable; employee retention, error rates and innovativeness. In effect, the study seeks to investigate the impact of work environment on performance of employees at the UHAS.

Chapter Summary

Chapter two of the study discussed the theoretical foundation and the concepts regarding the relationship between Work environments factors and Employee performance. Essentially, Herzberg motivation-hygiene/two factor theory provides the background for the understanding of the concept of work environment and performance. Interestingly, both physical and psychosocial factors such as supervisor support, leadership styles, role congruity, office design and layout, ventilation and lightning are essential workplace factors that provide motivation for employees. Consequently, employees who are motivated experience improvement in their performance level. The next chapter of the study discusses the methods to achieving the empirical basis for this theoretical and empirical perspective pertaining to University of Health and Allied Sciences.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter of the research details the research methodology adopted in this study. It contains the research design, population, sample size and sampling technique, sampling procedure and explains the method and procedures for data collection, analysis and interpretation of the research findings. The chapter also discusses why these elements in the research methodology were used.

Research Approach

The research approach used was quantitative approach. This choice is increasingly advocated within business and management research (Curran & Blackburn, 2001). The rationale for a quantitative approach is influenced by the choice of survey design, research paradigm and the theoretical perspective of the researcher. Quantitative approach is also flexible, cost effective and also allows for replication of the research procedure thus enhancing validity of findings. This research approach is considered appropriate because it enables the researcher to generate data through the standardized collection procedures based on highly structured research instrument(s) and well-defined study concepts and related variables.

Research Design

A research design shows the structure of the research problem and the plan used to investigate and the problem in order to achieve result (Cooper & Schindler, 2014). Malhotra and Birks (2007) and Creswell (2011) identified some research as experiments, surveys, ethnography, grounded theory and

case study. This study therefore used a survey research design to investigate the effect of work environment practice and employee performance. A survey design was adopted because it allows the collection of large data from a sizeable population in a highly economical way (Saunders, Lewis, Thornhill, 2009). Again, the survey design allowed the researcher to generate a quantitative description of the study population (Malhotra & Birks, 2007). The survey design is mostly used in business research and generally associated with deductive research approach (Saunders, Lewis & Thornhill, 2003).

According to Saunders *et al.* (2009), a study method usually classifies research purpose into three, namely: exploratory, descriptive and explanatory (Saunders *et al.*, 2009). Descriptive research, as the name suggests “portrays an accurate profile of persons, events or situations” (Robson, 2002; p.59). According to Saunders *et al.* (2009), explanatory studies are studies that prove the existence of causal relationships between variables. Additionally, exploratory research also refers to a research design that is characterized by a flexible and evolving approach to understand events that are inherently difficult to measure (Malhotra & Birks, 2007).

In effect, the study employed descriptive survey design to examine the structural relationship between work environment practices and performance of employees. The suitability of using the descriptive survey design in this study is to help the researcher identify and explain statistically, the relationship that exists among physical workplace factors, psychosocial factors and employee performance. Lastly, to provide a quantitative description of trends, attitudes, or opinions of a population under study.

Study Area

The study context is the University of Health and Allied Sciences. The University is one of the new universities in Ghana established by an Act of Parliament (ACT 828, 2011) as a public university in Ghana. The main aim of the university is to provide an avenue to train different health professional to attend to the health needs on Ghanaian. The University has three (3) institutions and eight (8) schools. It has the main campus including the central administration in Ho. A second campus is located in Hohoe. After its establishment in 2011, the University is undergoing infrastructural development. The University has employed several academic and non-academic categories of staff to discharge her duties as a public University. Junior and senior staff in the University is estimated to be five hundred and fifty (550).

The researcher chose UHAS because a cursory observation of the work environment indicates some conditions which affect employee's performance. Despite the regulatory framework and measures to improve work environment at the University, there appears to be challenges with the implementation of work environment practices at the university. This study is very relevant in this context because it enlightens management and other policy makers on the effect of work environment on employee performance. This study is important in this context because it helps assess the challenges mitigating against the implementation of work environment practices at UHAS.

Population

According to Leedy and Ormrod (2001) population can be seen as the target group about which the researcher is interested in gaining information

and drawing conclusions. Also, according to Baumgartner, Strong and Hensley (2002) population is the focus of a researcher's effort. The study focuses on employees (Junior and Senior Staff) at the University of Health and Allied Sciences. This is a public institution which operates in the Volta Region of Ghana. This study seeks to identify work-environmental practices at UHAS and the relationship between work environmental practices and employee performance. The study further outlines measures that enhance informed decisions to improve work environmental conditions.

The target population of this study constitutes the junior and senior staff of the University of Health and Allied Sciences. The total number of junior and senior staff in the University is five hundred and fifty (550). In this study junior and senior staff used for this study is non-teaching staff.

Sampling Procedure

In this study random sampling technique was used in collecting data. Creswell (2011) defined random sampling as a subset of individuals that are randomly selected from a population. A sample of 225 employees was sampled for the study. This sample size was informed by Krejcie and Morgan (1970) sampling size determination table which shows that a population of 550 required 225 as the sample size. Again, Hair, Ringle & Sarstedt (2010) who postulated that a sample size of more than 100 is adequate for a survey study. Random sampling technique was adopted in getting the respondents to answer the questionnaires. Kothari (2004) says that sampling technique is used because it guarantees desired representation of the relevant sub groups.

Data Collection Instrument

For the purposes of this study, a semi-structured questionnaire was used to collect primary data from the respondents. Semi-structured questionnaire was considered appropriate because in a survey research a large sample/data is required to yield the desired level of data precision, accuracy and reliability (Saunders, Lewis & Thornhill, 2003). Again, the semi-structured questionnaire will allow respondents to provide further relevant information which is not explicitly required using a self-administered questionnaire for a survey which is less expensive compared to other data collection instruments such as focus group discussions. In this study, the method was used in order to assess employee's working environment and the availability of resources for their job performance within the organisation. The questionnaire was divided into four (4) distinct sections numbered (A) – (D).

Section A of the questionnaire sought to ask respondents to provide demographic data: Sex, Age, Frequency of service and Length of Service. 'B' investigated the Perceived effectiveness of Work environment practices. 'C', evaluated respondent's knowledge on workplace factors (Physical and Psychosocial factors on work performance. Section D identified the challenges to implementing WEP at UHAS. Section E examines the measures to identify measure to promote WEP at UHAS. Modified Likert's interval rating scale with options ranging from strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1) were used as the response patterns on the construct items.

Data Collection Procedures

In order to address the research questions, the semi-structured questionnaire (see Appendix A) were administered to respondents. Ample time was given each respondent to complete the instrument. Data collection spanned over eight working weeks. Data collected from the respondents formed the primary source constitutes the major source of data for the study.

Data Processing and Analysis

The research hypothesis is a sensitive and complex one and establishing viable results would demand varied but effective analytical tools. After data collection, the raw data must be analysed through a systematic process of selecting, categorizing, comparing, synthesizing and interpreting data to provide explanation and make meaning. Completed semi-questionnaires are edited coded and entered into Statistical Package for Social Science (SPSS) version 22 for analysis. Frequencies and descriptive will be used to assess the respondent's characteristics and effectiveness of WEP at UHAS. On objective two, the researcher uses regression to test the effect of WEP on Employee performance. On objective three the study uses frequencies and descriptive to analyse the challenges to implementing WEP as well as measures to improve WEP at UHAS.

Validity and Reliability

Every research study must be valid and reliable especially, when designing a study, analysing results and judging the quality of the study. To ensure validity of questionnaire instrument the questionnaire will be submitted to the project supervisor for vetting, correction and approval before distribution. The researcher reviewed other relevant literature based on

research questions, findings and researcher's judgments. To ensure study reliability, a reliability test using Cronbach's coefficient alpha was used to determine the internal consistency and reliability of the multiple item scales used in the study.

The study employs alpha coefficient of 0.70 as the cut-off point to determine the internal consistency and reliability of the multiple item scales. The researcher emphasizes validity and reliability to minimize logical errors and biases in the study especially when drawing conclusions from the data findings.

Ethical Consideration

Ample time was given to respondents who participated in this survey to respond to the questions. This was to avoid errors and inaccuracies and misrepresentation of the study findings. Again, the researcher assured all respondents of the confidentiality of their responses as the information they provide was solely used for academic purposes. The purpose was to make the respondents feel more comfortable and confident to provide all the valuable information required.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

In the previous chapters of this study, the researcher reviewed literature relating to the research topic “Work environment practices and employee performance”. After careful review of literature and theoretical supports, study hypotheses and methodology were developed to test the relationship between our study variables. A semi-structured questionnaire (see Appendix A) was used to collect data from 225 junior and senior staff of the University of Health and Allied sciences (UHAS). This current chapter therefore reports and discusses the findings from the analysis of the data. This chapter presents data reporting, discussions and analysis in five main phases including: Descriptive analysis, Exploratory Factor analysis (EFA), Confirmatory Factor Analysis (CFA), and discussion of findings.

Statistical Package for Social Science (SPSS) was used for the descriptive analysis and hypotheses testing. Before performing the actual analysis of the main data, preliminary data analysis was done. During the preliminary data analysis (PDA), datasets and variables were cleaned and cleansed (Ainin, Parveen, Moghavvemi, Jaafar & Mohd Shuib 2015) to eliminate unengaged responses, outliers and replace missing data. During PDA, two hundred and ten (210) responses representing 93.33 percent were considered valid out of 225 responses received. At this stage, the study presents the findings of the result beginning with the descriptive of the data.

Descriptive Statistics of Field Data

In this study, descriptive statistics was run in two main forms: respondent's statistics and descriptive findings on the measurement model statements.

Demographic Characteristics of Respondents

The study sought to identify some characteristics of the respondents surveyed for the study. Table 1 presents the demographic characteristics of the respondents.

Table 1: demographic characteristics of the respondents

Characteristic	Frequency	Percent
Sex		
Male	154	73.3
Female	56	26.7
Age		
18-24	17	8.1
25-34	62	29.5
35-44	95	45.2
45-64	36	17.2
65 & above	-	0.00
Years of Service (Years)		
1-2	23	11
2-3	59	28.1
3-4	83	39.5
4-5	45	21.4
Level of Education		
Secondary	46	21.9
Diploma	28	13.3
First Degree	101	48.5
Post-graduate	35	16.7

Source: Field Survey, Hodowu (2019)

Table 1 shows the findings on the demographic characteristics of respondents who were involved in the survey. Regarding gender of respondents, the field survey revealed that majority of 154 respondents

representing 73.3 percent were males, whereas 56 representing 29.2 percent of the respondents were females.

Data on the age of respondents were gathered and thus revealed that respondents who fall within age group of 35-44 years constitute the majority of 166 respondents representing 45.2 percent whereas age group of 18-24 years constitute minority representing 8.1 percent. Again, 62 (29.5%) of respondents were found within the age range of 25-34 while 36 (17.1%) were found with ages 45-64. The study did not record participants who are more than 65 years. On education, this question sought to know the level of education of respondents. In terms of level of education, majority of the junior and senior staff at UHHAs representing a total of 48.5 percent have attained university degree. The least representation of 28 respondents constituting 13.8 percent have attained at least secondary and college education.

This result therefore means that the population have enough educational background to respond to study questionnaire. Regarding length of service with UHAS, the survey revealed an even majority of 83 staff at UHAS representing 39.5 percent had been in existence between 3 and 4 years. Fifty-nine (59) staff respondents representing 28.1 percent indicated that they have been in operation between 2 to 3 years. The least of 23 staff of UHAS out of 210 indicated that they have being with the University between 1 to 2 years.

This implies that the data obtained for this study analysis is not largely skewed to any specific direction and it is a good reflection of the entire segments of staff at UHAS. The next section therefore discusses the descriptive statistics of Seven (7) measurement constructs of Work environment practices and Employee performance.

Descriptive Statistics of Measurement Statements

The descriptive statistics reveals average scores of the measurement statements on work environment practices and employee performance (see Appendix B). The findings revealed that the majority of the indicators have modest to high mean value and standard deviation (SD). The highest mean score recorded was 4.12 (There is a balance of leadership and employee values in the office), while the lowest mean value recorded was 2.70 (The lightning systems are adequate for visual direction). The high mean score means that employees at UHAS largely believe that the effective working environment at UHAS is largely created by the balance of value among leaders and their subordinates/employees. This is therefore healthy for the promotion of employee performance as well as the overall performance of the organisation.

On the other hand, the least mean value shows that staff of UHAS do not believe that the lightning system is adequate for promoting work. This however, does not largely promote the performance of employees at UHAS.

Exploratory Factor Analysis

Exploratory factor analysis (EFA) involves assessment of the measurement model through rigorous tests to explore the data for adequacy, reliability and validity. Assessment of the measurement model is one of the first important steps in to ensure that statements (unobserved variables) are the true measure of the construct (Observed variables).

Test for Adequacy

In this study, adequacy tests were done based on four main criteria: Kaiser-Meyer-Olkin Measure of Sampling Adequacy, Bartlett's test of

sphericity, and Goodness-of-fit Test. Table 2 therefore presents the composite results of adequacy tests.

Table 2- Test of Adequacy

KMO Measure of Sampling Adequacy.		.848
Bartlett's Test of Sphericity	Approx. Chi-Square	3347.096
	Df	351
	Sig.	.000
Goodness-of-fit Test:	Chi-Square	263.171
	Df	183
	Sig.	.000

Source: Field Survey, Hodowu (2019)

From Table 2, KMO Measure of sampling adequacy recorded of .848 >.70 which indicates that the factors are suitable for the study (Kaiser, 1970). Bartlett's Test of Sphericity recorded a chi-square of 3347.096 at a significant value of .000 depicting a suitable factor analysis. Goodness-of fit Test recorded a chi-square of 183 at significant value of .00 which is considered perfect for the study (Bartlett 1954).

Test for Validity and Reliability

After achieving a fairly good Variance and Pattern matrix (Factor loadings) with five variables, the next CFA critical step were Reliability and Validity tests. Reliability test involved two main criteria comprising Cronbach alpha (CA) (Cronbach, 1951). Again, validity test was also done based on two main criteria Discriminant validity (correlation and Cross loadings) and

Convergent Validity using Factor Loadings (Rezaei & Ghodsi, 2014; Rezaei, 2015). Table 3 present the result of the Reliability and Validity test.

Table 3 - Test for Reliability and Validity of Measurement Model

Construct	Factor Loadings	Cronbach Alpha
Office Layout and Design		0.871
WEnv_OL1	0.837	
WEnv_OL12	0.909	
WEnv_OL13	0.863	
WEnv_OL14	0.518	
Ventilation and Lightning		0.771
WEnv_VI1	0.838	
WEnv_VI2	0.894	
WEnv_VI3	0.897	
WEnv_VI14	0.756	
Noise Intensity		0.869
WEnv_NI1	0.683	
WEnv_NI2	0.967	
WEnv_NI3	0.709	
Supervisor support		0.756
WEnv_Ss1	0.730	
WEnv_Ss2	0.815	
WEnv_Ss3	0.578	
WEnv_Ss4	0.823	
Role Congruity		0.840
WEnv_RC1	0.796	
WEnv_RC2	0.859	
WEnv_RC3	0.751	

Leadership Style		0.851
WEnv_LS1	0,644	
WEnv_LS2	0.854	
WEnv_LS3	0.839	
WEnv_LS4	0.667	
Employee Performance		0.922
EmpPerf1	0.862	
EmpPerf2	0.828	
EmpPerf3	0.952	
EmpPerf4	0.754	
EmpPerf5	0.668	

Source: Field Survey, Hodowu (2019)

Table 3 revealed that, among the modified measurement model, the reliability measures in the study are above the satisfactory levels (Cronbach's alphas $>.70$) as recommended by scholars (Hair, et al., 2010). The implication of CA is that the internal consistency of our constructs is perfect and reliable for the study. A convergent validity (CA) test was done using factor loadings. From table 6, the factors loaded fairly well above $>.50$ which was considered good based on our sample size of 210 (Hair, et al., 2010). At this stage there was no share high propensity of residual variance with other indicators (Koo, Chung & Kim, 2015).

On Discriminant Validity, the study items were assessed based on the Fornel-Lacker criterion and cross loadings in the pattern matrices. According to Fornel-Larcker criterion, the square root of AVE should be higher than the correlation shared between the various constructs and other constructs (Fornel & Larcker, 1981).

Descriptive Statistics of Constructs

The next section discusses their mean and standard deviation (SD) statistics of five confirmed constructs. The Table 4 below shows the mean score and standard deviation of the five confirmed constructs in this study.

Table 4 - Mean Score and Distribution of Confirmed Constructs

Constructs	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
Employee performance	210	3.6524	.98822	-.633	-.847
Office layout and design	210	3.4095	.69613	-.534	-.096
Noise Intensity	210	4.0270	1.03002	-1.361	1.347
Role congruity	210	3.2048	1.00126	-.391	-.593
Leadership Style	210	4.0571	.92108	-1.050	.331
Supervisor support	210	3.5762	.64946	-.496	.581
Ventilation intensity and Lightning	210	3.4738	.88712	-.377	-.579

Source: Field Survey, Hodowu (2019)

From Table 4 all the seven study constructs recorded average mean and standard deviation scores. Specifically, leadership style of management recorded the highest mean of 4.057 and SD=0.92108 while role congruity recorded the least mean of 3.409 and SD=0.696. The highest mean recorded implies that the driving element in employee performance at UHAS is the leadership style adopted by management. The least mean recorded also means that the level of association between employees' role and duties is not helping employees improve their performance. In a cumulative sense, the average mean recorded is 3.62775 while SD=0.88189 and thus all constructs appear to

be within the average mean and standard deviation scores. Again, the entire construct recorded an average skewness and Kurtosis value between positive and negative two.

Confirmatory Factor Analysis (CFA)

At this stage, the study used SPSS to assess the fitness of the main constructs of the study. CFA analysis was done based on the Model fit indices and regression analysis of the seven main confirmed observed constructs namely: office layout and design; noise intensity; ventilation intensity and lightning (physical factors); role congruity; leadership style; supervisor support (psychosocial factors) and employee performance. The next section therefore presents the standardized regression and covariance of our seven main constructs: Office layout and design; noise intensity; ventilation intensity and lightning (physical factors); role congruity; leadership style; supervisor support (psychosocial factors) and employee performance.

It is important to carry out regression analysis of the final constructs in order to determine the significance of the construct indicators and the correlation among the observed variables.

Analysis of Objectives

Perceived Effectiveness of Workplace Environment Practices at UHAS

The first objective of the study is to investigate the perceived effectiveness workplace environment practices at UHAS. The findings are presented in Table 5 where SD means Strongly Disagree, D mean Disagree, U mean Uncertain, A means Agree.

Table 5 - Perceived Effectiveness of Work Environment Practices

Statement	SD	D	U	A	SA	Total
Office layout and design	3	19	41	138	9	210
Ventilation intensity and Lightning at the work	2	14	57	89	18	210
Noise Intensity at the work environment	7	40	53	119	21	210
Supervisor support	4	38	48	95	25	210
Role congruity of employees	9	32	49	98	22	210
Leadership Style	3	41	49	94	23	210
Average score	5	31	50	106	20	210

Source: Field Survey, Hodowu (2019)

Table 5 shows the perceived effectiveness of WEP at UHAS. The study result shows that 106 out of 210 junior and senior staff of UHAS Agreed that WEP at the University is effective. Again, 20 respondents strongly agreed that WEP at the University is effective. Concerning effectiveness, staff at UHAS perceives control of noise intensity as the most effective WEP at the University. However, 5 and 31 respondents strongly disagreed and disagreed respectively that WEP at the University is effective. Quite profoundly, 50 out of 210 staff at the university are neutral concerning the effectiveness of WEP at the University. Importantly, the implication of these findings is that, majority of 126 perceive WEP at UHAS as effective.

Analysis of Variance and Linear Regression

Once the construct measures have been affirmed as reliable and substantial, the study then proceeded to assess the hypothesis result results.

The analysis here is to investigate the effect of Physical factors and psychosocial factors on performance of employees at UHAS. It is important to recall that the objective of this study is to investigate the effect work environment practices and performance of employees at university of health and Allied Sciences. The result shows the relationship between WEP (Physical Factors and Psychosocial factors) and Employee performance is presented in Table 6, Table 7 and Tale 8.

Table 6-Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1				
1	.569 ^a	.324	.317	.81659

a. Predictors: (Constant), Physical factors, Physchological factors

Source: Field Survey, Hodowu (2019)

The result for the model summary in Table 6 shows that when there is one percent change in independents variable (Physical and Psycho-social factors will lead to a 32.4 percent change in dependent variable which is employee performance. this shows a positive relationship between the study variables as shown by the R figure of 0.569. Adjusted R squared (coefficient of determination) showed an Adjusted R² = 0.324. The findings here therefore show a fairly strong degree of predictability of dependent and independent variables.

Table 7- ANOVA for the Effect of Work Environment Practice on Employee Performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	66.073	2	33.037	49.544	.000 ^b
Residual	138.031	207	.667		
Total	204.104	209			

a. Dependent Variable: Employee performance

b. Predictors: (Constant), Physical factors, Psychosocial factors

Table 7 shows the ANOVA result showing the effect of work environment practices and employee performance. On hypothesis (H1), the study's result expounded that, there is a significant effect of work environment practices and employee performance (H3: $F=49.544, p=0.000 < 0.001$).

Table 8 - Coefficients for the Effect of Work Environment Practice (Psychosocial and Physical Factors) on Employee Performance

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.329	.434		-.759	.449
Psychosocial factors	.804	.112	.474	7.204	.000
Physical Factors	.296	.123	.158	2.403	.017

a. Dependent Variable: Employee performance

Source: Field survey (2019)

Table 8 shows the coefficient of the effect of physical work environment practices (H2) and psychosocial work environmental practices

(H3) on employee performance. The first hypothesis under objective two (2) of this study aim was to investigate the influence of physical work environment effect on employee performance. The study's results elucidated that there is a significant effect of Physical work environmental factors and employee performance (H1: $t=.7204$, $\beta = .474$, $p<0.000$). The second hypothesis under objective two (2) sought to investigate the influence of psychosocial work environment effect on employee performance.

Coefficient table 10 shows a significant effect of Psychosocial work environment practices on employee performance (H2: $t=2.403$, $\beta = .158$, $p=0.017<0.05$). Although not hypothesis, the study sought to identify which of the specific physical and psychosocial work environment practices mostly driving performance of employees at UHAS.

Table 9 - Coefficients Table for Specific Physical and Psychosocial Work environment Factors

Model	Unstandardized		Standardized	T	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	.722	.452		1.596	.112
Office layout and design	.104	.099	.073	1.058	.291
Noise Intensity	.271	.064	.283	4.215	.000
Ventilation intensity and Lightning	.008	.060	.008	.142	.887
Role congruity	.285	.063	.288	4.541	.000
Leadership Style	.241	.069	.224	3.496	.001
Supervisor support	-.122	.105	-.080	-1.159	.248

a. Dependent Variable: Employee performance

Source: Field Survey, Hodowu (2019)

The study result on specific physical and psychosocial work environment practices depict that a significant influence of Noise Intensity, Role Congruity and Leadership style on employee performance which was measured efficiency, output, effectiveness. However, the study did find insignificant effect of office layout and design, ventilation intensity and lightning, supervisor support on performance of employee at UHAS.

Discussion of Findings

After testing the nine hypotheses, the next aim is to discuss the findings of the result. It is recalled that, the fundamental objective of this study was to investigate the influence of work environment practice on employee performance. Owing to the objective of the study our study data was subjected to rigorous analysis to critically examine its adequacy, reliability and Validity. Before this EFA test, data was cleaned where non-engaged responses were eliminated. This rigorousness was ensured to guarantee the reliability and validity of the outcome. Having tested our nine hypotheses, we therefore proceed to discuss the findings. Our hypothesis (H1) prognosticates a significant effect of physical work place environmental factors such as effective office layout and design, proper ventilation and lightning and controlled noise intensity.

Previous studies have found evidence to substantiate the fact that physical work environment practices influence employee performance (Boyce *et al.*, 2013; Samson & Swanson, 2015; Sekar *et al.*, 2011), our study confirms these findings. Profoundly, our study result further shows that noise intensity is the main driver of physical work environment factor affecting employee

performance, thus confirming the work of (Abd Hamid & Hassan, 2015; Sarode & Shirsath, 2014; Stup, 2003).

The result further revealed positive insignificant relationship effect of office layout and design and, ventilation and lightning on employee performance. Insignificant relationship between of office layout and design and, ventilation and lightning on employee performance appears contrary with the findings of (Al-Anzi 2009; Burke & Ng, 2000; Gutnick, 2007; Lan & Lian, 2010; Sehgal, 2012) who found proper office layout and design and, ventilation and lightning on improves employee motivation and performance. Hypotheses (H₂) sought a significant effect of psychosocial work environment practices such as role congruity, leadership style and supervisor support.

Previous studies have found that properly designed and implemented psychosocial work environment practices influence employee performance (Awan & Tahir, 2015; Chen & Silverthorne, 2005), the study result (H₂: $t=2.403$, $\beta = .158$, $p=0.017<0.05$) confirms these findings. The study further showed that employee's role congruity and leadership style are the driving work place practices on employee performance. These findings confirm previous studies (Arnold, 2007; Taylerson, 2012) who found that role congruity and leadership style influences employee performance. However, the study did not find any relationship between supervisor's support, which is contrary to previous studies (Haggins, 2011; Janakiraman *et al.*, 2011) that supervisor's support influence employee performance. Hypothesis (H₃) sought to investigate the overall effect of WEP on employee performance.

The study found a significant effect of work environment practices and employee performance. The overall significance was due to the significance

level between physical and psychosocial work environment. Consequently, the study findings confirm the work of Naharuddin and Sadegi (2013) who found work environment impact greatly on employee motivation and performance. Again, the findings further confirm the work of (Boyce, et al., 2013; Challenger, 2000; Chandrashekar, 2011; Kohun, 2002; Leblebici, 2012) have lucidly confirmed the relationship between physical and psychosocial factors on employee performance. Lamber *et al.* 2001; Mohamed and Uli (2010) have found evidence to support that fact that, good work environment benefits organisations, by encouraging employees to produce positive behaviours while at the same time preventing disloyalty and dissatisfaction.

Again, the findings of this study confirm the work of Mokaya, Musau, Wagoki and Karanja (2013) and Sarode and Shirsath, (2014) who found that conducive work environment that with cheerful and pleasant employee atmosphere, bright and cheerful decorations, proper arrangement of facilities and adequate working space positively impact on job satisfaction and performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECCOMENDATIONS

Introduction

The main purpose of this study is to examine if any, the influence of work environment practices and employee performance at UHAS. The study utilized the Hertzberg two factor theory (Hygiene-Motivator) as theory underpinning the study. Valid responses for this study comprised two hundred and ten (210) junior and senior staff of UHAS. Statistical Package for Social Science (SPSS) was used to test three main hypotheses and the findings discussed in the chapter preceding this current chapter. Based on the discussion in the preceding chapter, the study therefore provides a summary, conclusion, recommendations and future research direction.

Summary

First, the findings of the study provide evidence for the justification that, junior or senior staff at UHAS perceive EP at the University as effective. The result also shows that staff of the University perceive the level of noise at the work environment as the most effective WEP at the University. This finding may be due to the nature of the organisation which is an academic institution and thus require silence for effective academic work. The result also provides justification to substantiate the fact that there is a significant a relationship between work environment and employee performance at UHAS.

The study's result also showed that there is a significant effect of Physical workplace factors and psychosocial work place factors on employee performance. The study found evidence to the effect that there is a significance relationship between role congruity, leadership style and

leadership and employee performance. The result shows that noise intensity and role congruity are the main driving elements of employee performance. The study result shows an insignificant relationship between office layout and design, Ventilations and lightning, supervisor support and employee performance.

Conclusions

Having summarised the findings, the statistical result leads to the following conclusions which are based on the study objectives and questions. Based on the research question one, it therefore concludes that junior and senior staff at UHAS perceive work environment practices at the University as effective. Staff at UHAS perceive the level of controlled level of Noise in the work environment at the most effective practice. Based on the research question and objective two, this study concludes that physical work environment practice has an influence on employee performance. On specific physical work environment practices, the study concludes that Noise Intensity is the major driver of employee performance at UHAS.

The study also concludes that Office Layout and design, Ventilation and lightning system do not significantly contribute to performance of junior and senior staff of UHAS. This study concludes that psychosocial work environment practice has an influence on employee performance. On specific psychosocial work environment practices, the study concludes that employee role congruity and leadership style is the major driver of employee performance at UHAS. However, the study also concludes that supervisors' supports do not significantly contribute to performance of junior and senior

staff of UHAS and there is a significant effect of work environment practices on employee performance at UHAS.

Recommendations

It is recommended that, staff of UHAS must develop a self-mechanism to ensure there is a moderated level of noise control at the work environment. This is because these controlled levels of noise in the work environment give people the maximum concentration to work effectively with less error rates, hence maximum performance. Employees must not emphasise extensively on their individual culture and values in order to create superior-subordinate misunderstanding. This is paramount owing to the fact that, leadership style was found to contribute significantly to employee performance. Supervisors, management and leadership of the university must ensure that, employee roles are clearly spelt out, provide any new job description and provide feedback to employee of their job roles among others.

Contributions of the Study

This study has contributed knowledge to theory and practice of work environment practices and employee performance. This study has therefore thrown light on specific work environment practices driving performance. The study has revealed in detail, that the noise level, leadership style and role congruity are the driving work environment factors influencing performance of employees. From contextual perspective, the study in its uniqueness has contributed by revealing context specific work environment practices effecting employee performance. This will contribute highly by revealing possible strategies to provide improve employee performance

Suggestion for Future Research

This research is limited to University of Health and Allied Science and mostly other institutions of higher education. In view of this, it will be interesting to extend future work environment studies to other education institutions or organisations in the service, agriculture and industry sectors to broaden literature and understanding. Similar study can also be done in other universities and possibly in other regions of the Ghanaian economy.

REFERENCES

- Abdullah Hokoma, R., Khurshid Khan, M., & Hussain, K. (2010). The present status of quality and manufacturing management techniques and philosophies within the Libyan iron and steel industry. *The TQM journal*, 22(2), 209-221.
- Abd Hamid, N., & Hassan, N. (2015). The Relationship between Workplace Environment and Job Performance in Selected Government Offices in Shah Alam, Selangor. *International review of management and business research*, 4(3), 845-851.
- Afenyo, S. K. (2012). *The Effect of Motivation on Retention of Workers in the Private Sector: A Case Study of Zoomlion Company Ghana Ltd* (Doctoral dissertation).
- Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Mohd Shuib, N. L. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*, 115(3), 570-588.
- Ajala, E. M. (2012, June). The influence of workplace environment on workers' welfare, performance and productivity. In *the African Symposium 12*(1) 141-149.
- Ali, A. Y. S., Ali, A. A., & Adan, A. A. (2013). Working conditions and employees' productivity in manufacturing companies in sub-Saharan African context: Case of Somalia. *Educational Research International*, 2(2), 67-78.

- Al-Anzi, N. M. (2009). Workplace environment and its impact on employee performance. *Theses. Malaysia. Project Manajement Departement in Saudi Aramco. Open University of Malaysia.*
- Arsalani, N., Fallahi-Khoshknab, M., Ghaffari, M., Josephson, M., & Lagerstrom, M. (2011). Adaptation of questionnaire measuring working conditions and health problems among Iranian nursing personnel. *Asian nursing research, 5*(3), 177-182.
- Arman, A. R., Mastura, J., Shardy, A. & Samsiah, M. (2008). Work environment factors and job performance: the construction project manager's perspective. Retrieved June 12, 2014, from http://eprints.usm.my/16071/1/Arman_Abdul_Razak.pdf
- Arnold, M. (2007). Understanding and managing employability in changing career contexts. *Journal of European Industrial Training, 32*(4), 258-284.
- Awan, A. G., & Tahir, M. T. (2015). Impact of working environment on employee's productivity: A case study of Banks and Insurance Companies in Pakistan. *European Journal of Business and Management, 7*(1), 329-345.
- Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximations. *Journal of the Royal Statistical Society. Series B (Methodological)*, 296-298.
- Bauer, T. N., & Green, S. G. (1998). Testing the combined effects of newcomer information seeking and manager behavior on socialization. *Journal of Applied Psychology, 83*(1), 72.

- Baumgartner, T. A., Strong, C. H., & Hensley, L. D. (2002). Conducting and reading research in health and human performance, Chapter 1.
- Becker, F. O. (2002). *Workspace creating environments in organisation*. New York: Praeger.
- Brennan, A., Chugh, I., & Kline, T. (2002). Traditional versus open office design: A longitudinal field study. *Environment and Behaviour*, 34(3), 279-299.
- Boles, M., Pelletier, B., & Lynch, W. (2004). The relationship between health risks and work productivity. *Journal of Occupational and Environmental Medicine*, 46(7), 737-745.
- Bowler, W. M., & Brass, D. J. (2006). Relational correlates of interpersonal citizenship behavior: a social network perspective. *Journal of applied Psychology*, 91(1), 70.
- Boyce, P., Veitch, J., Newsham, G. Myer, M. & Hunter, C. (2013). *Lighting Quality and Office Work: A field simulation study*, Ottawa, Canada: U.S Department of Energy & National Research Council of Canada
- Bradley, M. M., (2003). Activation of the visual cortex in motivated attention. *Behavioral neuroscience*, 117(2), 369.
- Bushiri, C. P. (2014). *The impact of working environment on employees' performance, the case of Institute of Finance Management in Dar es Salaam* (Doctoral dissertation, The Open University of Tanzania).
- Burke, R. J., & Ng, E. (2006). The changing nature of work and organisations: Implications for human resource management. *Human Resource Management Review*, 16(2), 86-94.

- Chandrasekar, K. (2011). Workplace environment and its impact on organisational performance in public sector organisations. *International Journal of Enterprise Computing and Business Systems*, 1(1)
- Challenger, J.A. (2000). 24 Trends reshaping the workplace. *The Futurist*, 35-41.
- Chen, J. C., & Silverthorne, C. (2005). Leadership effectiveness, leadership style and employee readiness. *Leadership & Organisation Development Journal*, 26(4), 280-288.
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods*. © The McGraw– Hill Companies.
- Creswell, J. W. (2011). Controversies in mixed methods research. *The Sage handbook of qualitative research*, 4, 269-284.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Curran, J., & Blackburn, R. A. (2001). Older and the enterprise society: Age and self-employment propensities. *Work, Employment and Society*, 15(4), 889-902.
- Dar, O. L. (2010). Trust in co-workers and employee behaviours at work. *International Review of Business Research Papers*, 6(1), 194-204.
- Dorman, J. P. (2008). Using student perceptions to compare actual and preferred classroom environment in Queensland schools. *Educational Studies*, 34(4), 299-308.

- Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2012). *Management research*. Sage.
- Fisher, C. D. (2003). Why do lay people believe that satisfaction and performance are correlated? Possible sources of a common-sense theory. *Journal of Organisational Behaviour*, 24, 753-777
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.
- Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement. *Industrial management & data systems*, 104(4), 364-372.
- Gutnick, L. (2007). A workplace design that reduces employee stress and increases employee productivity using environmentally responsible materials. *Masters Theses and Doctoral Dissertations*, 151.
- Haggins, R. (2011). *A correlational study of work environment factors and organisational commitment in southern California staff nurses* (Doctoral dissertation, University of Phoenix).
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2010). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance.
- Hameed, A., & Amjad, S. (2009). Impact of office design on employees' productivity: A case study of banking organisations of Abbottabad, Pakistan.
- Haynes, B. P. (2008). The impact of office comfort on productivity. *Journal of Facilities Management*, 6(1), 37-51.

- Heath, G. W. (2006). The effectiveness of urban design and land use and transport policies and practices to increase physical activity: a systematic review. *Journal of Physical Activity and Health*, 3(s1), S55-S76.
- Hasun, F. M. & Makhbul, Z. M. (2005). Gender responses to stress outcomes. *Journal of Global Management*, 1(1).
- Herzberg, F. (1968). Motivation, morale and money. *Psychology Today*, 1(10), 42.
- Ismail, J., Ladisma, M., Mohd Amin, S. H., & Arapa, A. (2010). The Influence of physical workplace environment on the productivity of civil servants: The case of the Ministry of Youth and Sports, Putrajaya, Malaysia. *Voice of Academia*, 5(1), 78-98.
- Janakiraman, R., Parish, J. T., & Berry, L. L. (2011). The effect of the work and physical environment on hospital nurses' perceptions and attitudes: Service quality and commitment. *Quality Management Journal*, 18(4), 36-49.
- Kaiser, H. F. (1970). A second-generation little jiffy. *Psychometrika*, 35(4), 401-415.
- Kavanaugh, R. R., & Ninemeier, J. D. (2011). Supervision in the Hospitality Industry, 3rd. Edition, Michigan: Educational Institute of AHLA.
- Keeling, B. L., & Kallaus, N. F. (1996). *Administrative office management*. Cengage Learning.

- Khan, R. I., Aslam, H. D., & Lodhi, I. (2011). Compensation Management: A strategic conduit towards achieving employee retention and Job Satisfaction in Banking Sector of Pakistan. *International journal of human resource studies*, 1(1), 89.
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
- Kohun, F. (2002). Workplace Environment and its impact on organisational performance in Public sector organisations, *International Journal of Enterprise Computing and Business System International Systems*, Vol. 1 Issue 1 January 2011.
- Koo, C., Chung, N., & Kim, D. J. (2015). How do social media transform politics? The role of a podcast, ‘Naneun Ggomsuda’ in South Korea. *Information Development*, 31(5), 421-434.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30(3), 607-610.
- Lan, L., & Lian, Z. (2010). Application of statistical power analysis—How to determine the right sample size in human health, comfort and productivity research. *Building and Environment*, 45(5), 1202-1213.
- Leblebici, D. (2012). Impact of workplace quality on employee’s productivity: case study of a bank in Turkey. *Journal of Business Economics and Finance*, 1(1), 38-49.
- Leedy, P. D., & Ormrod, J. E. (2001). *Practical research: Planning and research*. Upper Saddle.

- Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism management*, 29(3), 458-468.
- Locke, E. A., & Latham, G. P. (1990). Work motivation and satisfaction: Light at the end of the tunnel. *Psychological science*, 1(4), 240-246
- Malhotra, N. K., & Birks, D. F. (2007). Marketing research: An applied approach. Pearson Education.
- Marpady, P., Selamu, L. G., & Singhe, M. S. (2009) Social exclusion and health deprivation of Dalits and Tribes in Karnataka India.
- Matthews, R. D. & Khanna, N. (2015). Posturing and holdup in innovation. *The Review of Financial Studies*, 29(9), 2419-2454.
- McGuire, D., & McLaren, L. (2009). The impact of physical environment on employee commitment in call centres: The mediating role of employee well-being. *Team Performance Management: An International Journal*, 15(1/2), 35-48.
- Mehboob, F., & Bhutto, N. A. (2012). Job satisfaction as a predictor of organisational citizenship behaviour a study of faculty members at business institutes. *Interdisciplinary journal of contemporary research in business*, 3(9), 1447-1455.
- Mokaya, S. O., Musau, J. L., Wagoki, J., & Karanja, K. (2013). Effects of organisational work conditions on employee job satisfaction in the hotel industry in Kenya. *International Journal of Arts and Commerce*, 2(2), 79-90.
- Naharuddin, N. M., & Sadegi, M. (2013). Factors of workplace environment that affect employees' performance: A case study of Miyazu Malaysia.

- Nijman, J. E. (2004). *The concept of international legal personality: an inquiry into the history and theory of international law*. Cambridge University Press.
- Northouse, L. L., Katapodi, M. C., Song, L., Zhang, L., & Mood, D. W. (2010). Interventions with family caregivers of cancer patients: meta-analysis of randomized trials. *CA: a cancer journal for clinicians*, 60(5), 317-339.
- Ojo, O. (2010). The relationship between service quality and customer satisfaction in the telecommunication industry: Evidence from Nigeria. *BRAND. Broad Research in Accounting, Negotiation, and Distribution*, 1(1), 88-100.
- Oldham, G. R., & Hackman, J. R. (1976). *Work Design in the Organisational Context* (No. TB-17). Yale Univ New Haven Conn School Of Organisation And Management.
- Oppermann, R. (2002). User-interface design. In *Handbook on information technologies for education and training* (pp. 233-248). Springer, Berlin, Heidelberg.
- Rabey, G. (2007). Diagnose—then act. Some thoughts on training today. *Industrial and Commercial Training*, 39(3), 164-169.
- Rezaei, S. (2015). "Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach." *Journal of Retailing and Consumer Services* (22): 1-15.
- Rezaei, S & Ghodsi. S. S. (2014). Does value matters in playing online game? An empirical study among massively multiplayer online role-playing games (MMORPGs). *Computers in Human Behaviour* (35): 252-266.

- Rezaul, K. (2014) Creating healthy workplace environment. Retrieved June 14, 2014, from wikinut.com: <http://writing.wikinut.com/Creating-healthy-workplace-environment/1zuuqbl/>
- Roelofsen, P. (2002). The impact of office environments on employee performance: The design of the workplace as a strategy for productivity enhancement. *Journal of facilities Management, 1*(3), 247-264.
- Sarode, A. P., & Shirsath, M. (2014). The factors affecting Employees work environment and its relationship with Employee productivity. *International journal of Science and Resource, 11*(3), 2735-2737.
- Saunders, M., Lewis, P., & Thornhill, A. (2003). Selecting samples. *Research methods for business students, 3*.
- Saunders, M. N. (2011). *Research methods for business students, 5/e*. Pearson Education India.
- Samson, S., & Swanson, K. (2015). Support your staff employees: they support the academy. *Reference Services Review, 42*(1), 165-180.
- Sekar, N., Muttiah, K., Santosh, B. R., & HRD, C. (2012). its Relationship to Role Motivation-A Study among Blue Collar Workers in Indian Manufacturing Companies. *European Journal of Social Sciences, 36*(2), 171-188.
- Shikdar, A. A. (2004). Identification of ergonomic issues that affect workers in oilrigs in desert environments. *International Journal of Occupational Safety and Ergonomics, 10*(2), 169-177.

- Stup, R. (2003). Control the factors that influence employee success. In *Managing the Hispanic Workforce Conference*. Cornell University and Pennsylvania State University.
- Sundstrom, E., Town, J.P., Rice, R.W., Osborn, D.P. and Brill, M. (1994), Office noise, Satisfaction, and Performance, *Environment and Behavior*, Vol-26(2), 195-222.
- Taiwo, A. S. (2010). The influence of work environment on workers productivity: A case of selected oil and gas industry in Lagos, Nigeria. *African Journal of Business Management*, 4(3), 299.
- Tetteh, E. K., Asiedu, C., Odei, G. A., Bright-Afful, C., & Akwaboah, L. (2012). Work Environment and Its Impact on Employee's Performance (A case study of Produce Buying Company, Kumasi). *Published final year project*. Christian Service University College.
- Taylorson, K. (2012). The health benefits of tea varieties from *Camellia sinensis*. *The Plymouth Student Scientist*, 5(1), 304-312.
- Sehgal, S. (2012). Relationship between work environment and productivity. *International journal of engineering research and applications*, 2(4), 1992-1995.
- African Union, A. (2004). Declaration on employment and poverty alleviation in Africa. *Assembly of the African Union, third extraordinary session on employment and poverty alleviation*, 8, 04-09.
- Vischer, J. C. (2008). Towards an environmental psychology of workspace: how people are affected by environments for work. *Architectural science review*, 51(2), 97-108.

- Veitch, J. A., Charles, K. E., Newsham, G. R., Marquardt, C. J. G., & Geerts, J. (2004). Workstation characteristics and environmental satisfaction in open-plan offices. *Ottawa, Canada: National Research Council.*
- Warr, P. (2002). *Psychology at work.* Penguin UK.
- Weerarathna, R. S., & Geeganage, I. A. P. H. (2014). The Relationship between Organisational Culture and Employee Performance: Case of Sri Lanka. *International Journal of Scientific & Engineering Research, 5(8), 985.*
- Wells, N. M. (2000). At home with nature: The effects of nearby nature on children's cognitive functioning. *Environment & Behavior, Vol-32, 775-795.*
- Yusoff, W. F. W., Kian, T. S., & Idris, M. T. M. (2013). Herzberg's Two Factors Theory On Work Motivation: Does Its Work For Today's Environment. *Global journal of commerce and Management, 2(5), 18-22.*
- Zikmund, B., Carr, A., & Griffin, S. (2012). Business Research Methods. *Fisher, M. (9th ed.), Cengage Learning.: South-Western: Canada*

APPENDIX A

SURVEY QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF HUMAN RESOURCE MANAGEMENT

RESEARCH QUESTIONNAIRE

INTRODUCTION

The researcher is a Master's student at the University of Cape Coast offering Master of Business Administration (Human Resource Management) Programme. The researcher is conducting a study on the topic "*Work environment and employee performance at University of Health and Allied Sciences*". This is in partial fulfilment of the requirements for the award of a Master of Business Administration (HRM) degree. Please your response provided for this academic purpose will be treated with high confidentiality.

THANK YOU.

Please write or tick [] where applicable

SECTION A: DEMOGRAPHIC INFORMATION OF RESPONDENTS

1. Sex distribution Male [] Female []
2. Age range of respondents in years:
18-24 [] 25-34 [] 35-44 [] 45-65 [] 65-above []
3. Educational level: Secondary Education [] Diploma []
First degree [] Postgraduate degree []
4. How long have you been in the institution? (years)
Less than 2 [] 2-3 [] 3-4 [] 5-above []

SECTION B: PERCIEVED EFFECTIVENESS OF WORK ENVIRONMENT PRACTICES AT UHAS

Where: 1-Not very-effective; 2- Not-effective; 3-Neutral; 4-Effective; 5-Very-effective

	Effectiveness of work environment practices	1	2	3	4	5
1	Office layout and design					
2	Ventilation intensity and Lightning at the work					
3	Noise Intensity at the work environment					
4	Supervisor support					
5	Role congruity of employees					
6	Leadership Style					

SECTION C: WORK ENVIRONMENT PRACTICES

5. To what extent are you satisfied with the following work environment practices at UHAS. **1-Very-Unsatisfactory; 2- Unsatisfactory; 3-Neutral; 4-Satisfactory; 5-Very-Satisfactory**

No	WORK ENVIRONMENT PRACTICES	1	2	3	4	5
A	Office layout and design:					
1	I have good furniture and seating arrangement which allow me to work comfortably					
2	Equipment layout is good to facilitate free flow of my work					
3	My working equipment are adequate and in good condition					
4	I have enough space to do my work					
B	Ventilation intensity and Lightning:					
5	I have good office temperature					
6	Humidity in the office is good to perform our duties					

7	The ventilation is good for my work					
8	The lightning systems are adequate for visual direction					
C	Noise Intensity:					
9	I experience noise from colleague workers					
10	There is noise from vehicular traffic outside the office					
11	I experience noise from student activities outside the office					
D	Supervisor support:					
12	I have good relationship with supervisor					
13	Line of authority is clearly defined in the institution					
14	Supervisor provide direction of standard, expectation and task support					
15	There is adequate feedback and incentive systems					
E	Role congruity:					
16	My duties and responsibilities were clearly spelt out to me					
17	I receive update on changes in my job description					
18	Changes in job description does not affect my work and working relationships					
F	Leadership Style					
19	There is a positive leadership style in the office					
20	Leaders in the institution do not impose decisions					
21	There is a balance of leadership and employee values in the office					
22	I have good interaction with the leaders in the organisation					

SECTION D: MEASURE TO IMPROVE WORK ENVIRONMENT

6. To what extent do you agree or disagree that the following measures can improve the work environment at UHAS? **Where: 1-Strongly Disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly Agree**

N	Effect of work environment	1	2	3	4	5
1	I perform my work effectively with low errors and mistakes					
2	There is efficiency in my work					
3	My output has improved because am healthy and well					
4	I am willing to stay in the organisation and work					
5	I keep improving with new approaches to do my work					

THANK YOU FOR YOUR PARTICIPATION