

**THE EFFECTS OF WORK ENVIRONMENT ON EMPLOYEES
PRODUCTIVITY IN GOVERNMENT ORGANIZATIONS. A CASE
STUDY OF OBUASI MUNICIPAL ASSEMBLY**

KNUST

BY

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DECLARATION

I hereby declare that this research is my own work under supervision and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for award of any other degree of any university, except where due acknowledgement has been made in the text. Quotations and ideas taken from other authors have been dully cited.

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DEDICATIONS

I dedicate this work to the almighty God for His directions and immense support. I as well dedicate the work to my lovely wife, Mrs. Helena Addai Manu and my three children, Odefo, Ohene and Ayeyi.



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However I alone claim the responsibility for the imperfections that remain in the study.

ABSTRACT

The study sought to investigate the effects of work environment on employee's productivity in government organizations in Obuasi Municipality. The research design for this study was the survey research design to assess the relationship between work environment and employee's productivity at Obuasi Municipal Assembly. Thus, the population of the study comprised all employees of Obuasi Municipal Assembly. The Assembly which has total staff strength of 255 employees was used as the case study. In an attempt to realize the objectives of the study, 100 questionnaires were administered to the employees of Obuasi Municipal Assembly. In order to ensure that all the strata of the population were fairly represented and all cases within each stratum had equal chance of being selected, stratified random sampling was used to select a sample of 100 employees for this research. A response rate of 78% was achieved. The data collected from the employees was analyzed using multiple regression and descriptive statistics. It was found that, each of the components that define work environment were statistically significant to productivity of the Municipal Assembly. However, the social work environment of employees of Obuasi Municipal Assembly was the most conducive work environment at Obuasi Municipal Assembly and the psychological environment of the Assembly was least conducive. In the end, work environment at Obuasi Municipal Assembly was statistically significant to the productivity of employees at the Municipal Assembly. It was among other things recommended that for the productivity of the Obuasi Municipal Assembly to be enhanced, the Assembly must improve upon its psychological environment so as to improve upon the psychological health of its employees.

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction and Background to the Study

Humans are influenced by certain activities around their habitat or working environment. A work environment can be identified as the place that one works, which means the milieu around a person. It is the social and professional environment in which a person is supposed to interact with a number of people. Hay Group (2007) contends that work environment includes a friendly, well-designed, safe physical space, good equipment and effective communication, which will improve productivity. Well-designed and organized offices and work areas make significant differences to how people feel about their work. Working environment can give some depressing messages about how much the organization value employees and the standards it expects from them (Armstrong & Murlis, 2007).

A satisfied, happy and hardworking employee is biggest asset of any organisation. Effective work environment encourage the happier employee with their job that ultimately influence the growth of an organisation as well as growth of an economic. Lambert et al. (2001) found that environmental factors are important determinant of job satisfaction. The level of salary, promotion, appraisal system, climate management, and relation with co-workers are the very important factors. Creating better and higher performing workplace requires an awareness of how workplace impacts behaviour and how behaviour itself drives workplace performance (Armstrong & Murlis, 2007). People work individually and interact with others and this requires different workplace solutions (Chandrasekar, 2011).

Management's new challenge is to form an environment that attracts, retain and motivate its workforce. The responsibility lies with managers and supervisors at all levels of the organization. They have to create a working environment where people enjoy what they do, feel like they have a purpose, have pride in what they do and can reach their potential. The work environment affects employee morale, productivity and engagement- both positively and negatively. In an effort to motivate workers, firms have put into practice a number of activities such as performance based pay, employee involvement, recruiting agreements, practices to help balance work and family life as well as various forms of information sharing, (Chandraseker, 2011).

Today's work environment is different, diverse and constantly changing. The combination of factors has created an environment where the business needs its employees more than the employees need the business. It is the quality of the employee's work environment that most impacts on the level of employee's motivation and subsequent performance. In today's competitive business environment, organizations can no longer afford to waste the potential of their workforce (Hughes, 2007). Therefore, most government organisations are making all possible efforts to make work environment more comfortable, safe and healthy. The workplace environment impacts employee morale, productivity and engagement - both positively and negatively. Comfortable office design motivates the employees and increases their performance to a large extent.

According to Abdulla et al. (2010), environmental factors represent the immediate job environment that contains skills required to perform a job, authority, autonomy, relationship with supervisors and co-workers and other working conditions. It is important

for the employer to know how its work environment impacts greatly on the employee's level of motivation and performance. A well designed office signals the values and objectives of the organisation and the use of design in office interior communicates an organisation values and identity. Office design therefore should be one of the factors in affecting employee's productivity. It's therefore important to find out if employee's health can directly or indirectly disturb their work performance or productivity. So it is necessary to study the impact of the work environment in an organization on the performance of its employees. Brill (1992) estimates that improvements in the physical design of the workplace may result in a 5-10 percent increase in employee productivity.

1.2 Statement of the Problem

Employees use about 50 percent of their existence within work environments, which extremely affect their status of mind, aptitudes, and actions in addition to their performance (Sundstrom, 1994). Notwithstanding this, the environment in the workplace of most government organisations/ public companies are insecure and harmful to one's health (Perry & Porter, 1982). These comprises poor air circulation, poor personal protective equipment, inappropriate furniture, inadequate security measures in fire emergencies (absence of fire extinguishers), unnecessary noise, unfitting lighting and poorly designed workplaces. Employees operating in these environments are susceptible to job-related ailment and it influences on worker's productivity negatively. Meanwhile, it is the value of the work environment that influences greatly on the quality of worker's inspiration and productivity (Hughes, 2007). In recent time's competitive corporate environment have created a situation where companies cannot tolerate to misuse the abilities of their staff

(Armstrong & Murlis, 2007). For that reason, public companies cannot afford not to do their possible best to create a comfortable, safe and healthy work environment if productivity is a priority.

There is important evidence that productivity advancement in government organizations has not kept pace with the growths discovered in the non-governmental sector (Killefer & Mendonca, 2006). The difficulty is that encouraging local workers is not an easy task in the mist of poor working environment. Government employees have a status for sluggishness and indolent due to their poor work environment (Wilson, 1989; Wright, 2001) and managers' cannot do much to resolve the issue because of the firm civil- service laws. How local managers can inspire their staff is considered to be one of the big challenges of Public Management" (Behn, 1995). The above situation can adversely affect the productivity of government organizations and for that matter needs immediate attention.

It requires a completely diverse method than what was used some years back to retain and motivate workers currently. Worker's wellbeing and confidence are regularly consistent with respect to efficiency in the work environs. There is important evidence that productivity advancement in government organizations has not kept pace with the growths discovered in the non-governmental sector (Killefer & Mendonca, 2006). The workplace environment of most government organisations is insecure and harmful to one's health. These comprises poor air circulation, poor personal protective equipment, inappropriate furniture, inadequate security measures in fire emergencies (presence of fire

extinguishers), unnecessary noise, unfitting lighting and poorly designed workplaces (Chandraseker, 2011). Individuals operating in these surroundings are susceptible to jobrelated ailment and it influences on worker's productivity negatively. The above situation can adversely affect the productivity of government organizations and for that matter needs immediate attention.

1.3 Objectives of the Study

Work surroundings include all the features which perform and respond to the mind and physical appearance of a worker. Broadly speaking, this study seeks to assess how can be effectively used to promote employees performance in the Obuasi Municipal Assembly.

Precisely, the study seeks to attain the following objectives:

1. To examine the work environment of Obuasi Municipal Assembly.
2. To assess the productivity of workers of Obuasi Municipal Assembly
3. To determine the effect of work environment on productivity of employees of Obuasi Municipal Assembly.

1.4 Research Questions

One cannot fully appreciate improvements made in science, knowledge, or technology without some understanding of the conditions inside which these growths happened (Salkind, 2003). In an effort to evaluate how work surroundings can be successfully used to stimulate workers efficiency in the Obuasi Municipality, the study hopes to address the subsequent questions which specify what the researcher wishes to investigate into:

1. How is the work environment of Obusi Municipal Assembly?
2. What is the productivity of workers of Obuasi Municipal Assembly?
3. What is the effect of work environment on productivity of employees of Obuasi Municipal Assembly?

1.5 Overview of Methodology

The research design for this thesis was a survey. The study made extensive use of both primary and secondary data. The primary data was collected through administering a survey questionnaire to the employees of Obuasi Municipal Assembly. The questionnaires were administered through the Human Resource Department of the Obuasi Municipal Assembly. Most of the questions asked in the study were closed ended because it allowed respondents to provide answers within a limited set of options provided to them.

The secondary data was collected from documentary materials from the Obuasi Municipal Assembly which included the Assembly's reports, newsletters and other printed materials. Other sources of secondary data used for this study included published articles, books, reports related to the subject area and internet. These data were generally used in the literature review chapter to develop the arguments that serve as the basis for the empirical study. Data was analysed quantitatively. The questionnaires from the organisations was analysed quantitatively using multiple regression and descriptive statistical tools such as bar graph complemented with mean and standard deviations.

1.6 Justification of Study

The study is important in providing better understanding of the relationship between working environment and employee's productivity in government organisation which will serve as a guide to evaluate how the working environment affect the performance of government employees. In addition, the study makes room for employees to voice their level of work affection which helps in formulating training needs (Newstrom and Davis, 1993). In a more perspective view, the outcome of the research would be used to alert the management of Obuasi Municipal Assembly of employees' level of satisfaction or dissatisfaction with reference to specific work environment features. Moreover the study would serve as background information for similar research in the future.

1.7 Scope of Study

The study sought to investigate the effects of work environment on employees productivity in government organisations. The population of this research comprised all the employees of Obuasi Municipal Assembly. One hundred questionnaires were administered to the employees of Obuasi Municipal Assembly through the Human Resource Department. Respondents were made up of the management of the Assembly, department heads, senior and junior staff including both permanent and contract staff.

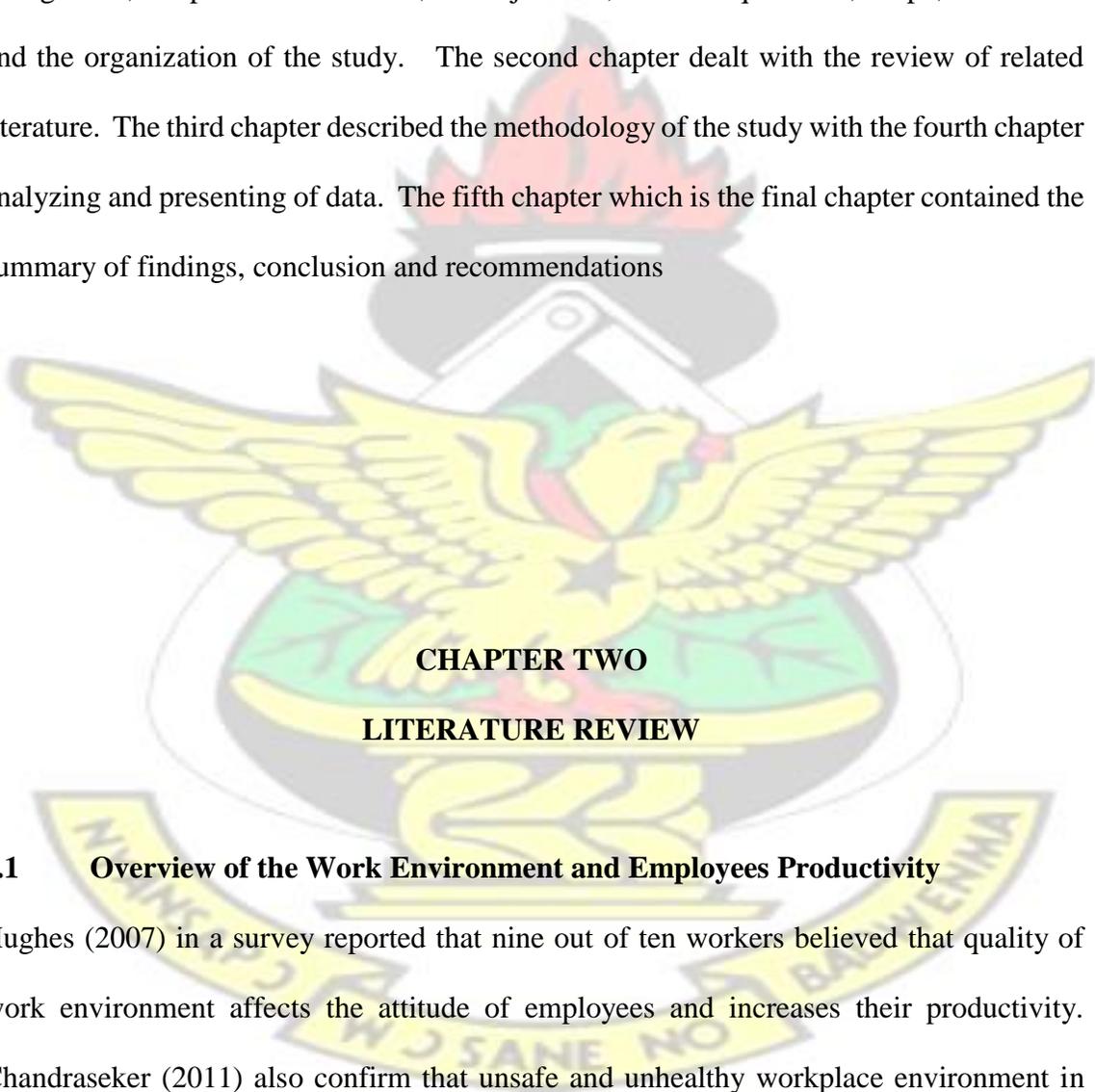
1.8 Limitations of the Study

One of the limitations that came across during data collection exercise was that some respondents were unwilling to fill the questionnaires. Also, inadequacy of time was another problem. Besides, the primary data was administered and collected during working hours which conflicted with the work schedule of respondents. Moreover, fear of victimization

on part of the respondents was another problem. Some respondents were reluctant in probing into vital issues because they were afraid of being victimized by their superiors.

1.9 Organisation of the Study

The study was organized into five chapters. The first chapter introduced the study with the background, the problem statement, the objectives, research questions, scope, limitations and the organization of the study. The second chapter dealt with the review of related literature. The third chapter described the methodology of the study with the fourth chapter analyzing and presenting of data. The fifth chapter which is the final chapter contained the summary of findings, conclusion and recommendations



CHAPTER TWO

LITERATURE REVIEW

2.1 Overview of the Work Environment and Employees Productivity

Hughes (2007) in a survey reported that nine out of ten workers believed that quality of work environment affects the attitude of employees and increases their productivity. Chandraseker (2011) also confirm that unsafe and unhealthy workplace environment in terms of poor ventilation, inappropriate lighting, excessive noise etc. affect workers productivity and health. Hameed and Amjad (2009) in a survey of 31 bank branches

showed that comfortable and ergonomic office design motivates the employees and increased their performance substantially. Based on these findings and literature review, it was observed that most researches on workplace environment and productivity have been concentrated on profit oriented organizations and not much focus have been placed on government organizations, it was against this background that this study sought to analyze the influence of workplace environment on employees productivity in government organization.

The environment is man's immediate surrounding which he manipulates for his existence. Wrongful manipulation introduces hazards that make the environments unsafe and impede the productivity rate of the worker. Therefore, the workplace entails an environment in which the worker performs his work (Chapins, 1995) while an effective workplace is an environment where results can be achieved as expected by management (Mike, 2010; Shikdar, 2002). Physical environment affect how employees in an organization interact, perform tasks, and are led. Physical environment as an aspect of the work environment have directly affected the human sense and subtly changed interpersonal interactions and thus productivity. This is so because the characteristics of a room or a place of meeting for a group have consequences regarding productivity and satisfaction level. The workplace environment is the most critical factor in keeping an employee satisfied in today's business world. Today's workplace is different, diverse, and constantly changing. The typical employer/employee relationship of old has been turned upside down. Workers are living in a growing economy and have almost limitless job opportunities. This combination of factors has created an environment where the business needs its employees more than the employees need the business (Smith, 2011).

“Working conditions are created by the interaction of employee with their organizational climate, and includes psychological as well as physical working conditions” (Gerber *et al.*, 1998, p.44). According to business dictionary, the term working condition refers to working environment and all existing circumstance affecting labor in the work place, including job hours, physical aspects, legal rights and responsibility, organizational climate and workload. Rolloos (1997) defined the productivity as that which people can produce with the least effort. Productivity is a ratio to measure how well an organization (individual, industry or country) converts input resources (labor, materials, machines etc.) into goods and services. This study adapts the definition of working conditions which refers to the working environment and aspects of an employee’s terms and conditions of employment. In addition, productivity refers to effort that individuals can produce with the least effort by putting labor, material and machines. The working conditions are very important to the organization. If the employees have negative perception of their working conditions, they are likely to be absent, have stress related illness, and their productivity and commitment tend to be low. On the other hand, organizations that have a friendly, trusting, and safe environment, experience greater productivity, communication, creativity, and financial health (Kreisler, *et al.*, 1997). Productivity is related to working conditions which in turn related to absenteeism, retention, the adoption of new methods and technologies. All of these things are related to how people are trained, encouraged are generally treated within the system (Hamilton, 2007).

2.2 Features of Work Environment and Employees Productivity

A large number of work environment studies have shown that workers/users are satisfied with reference to specific workspace features. These features preference by users are highly significant to their productivity and workspace satisfaction, they are lighting, ventilation rates, access to natural light and acoustic environment (Becker, 1981; Humphries, 2005; Veitch, Charles, Newsham, Marquardt & Geerts, 2004; Karasek & Theorell, 1990). Lighting and other factors like ergonomic furniture has been found to have positive influence on employees health (Dilani, 2004; Milton, Glencross & Walters, 2000; Veitch & Newsham, 2000) and consequently on productivity. This is so because light has a profound impact on workers physical, physiological and psychological health, and on their overall performance at the workplace. Ambient features in office environments, such as lighting, temperature, existence of windows, free air movement etc, suggest that these elements of the physical environment influence employee's attitudes, behaviours, satisfaction, performance and productivity (Larsen, Adams, Deal, Kweon & Tyler, 1998; Veitch & Gifford, 1996). Closed office floor plan, whether each employee has a separate office of their own or there are a few people in each closed office, allows staff a greater amount of privacy than an open plan office layout. They have the chance to work in peace and quiet, keeping them focused on the tasks in hand without getting overtly distracted by what their colleagues are doing. It offers employees a thinking fame or be creative without much interruption (Mwbex, 2010). In the open office plan, noise existence is stressful and possesses high level of distraction and disturbance coupled with low privacy level (Evans & Johnson, 2000).

With technological development, innovative communication methods, virtual reality; emarket improvement and alternative work patterns, workplace continues to change rapidly (Challenger, 2000). To accommodate these rapid changes while maintaining or improving outcomes, organizations have increasingly turned to some version of environment such as open office space (Terricone and Luca, 2002). This type of work environment supports new styles of working and flexible workplaces which offers interpersonal access and ease of communication compared to fully enclosed private offices. This change to open plan office has increased employees productivity compared to closed office spaces (Becker, 2002). Furthermore, it is easier to communicate with someone whom you can see more easily than someone adjacent/distant or separated by objects from you (J'Istvan in Business (2010). The open office creates egalitarian system with equal working conditions that reduces the distance between employees and improves communication flow (Brennan, Chugh & Kline, 2002, Hedge, 1986, 2000).

Noise is one of the leading causes of employees distraction, leading to reduced productivity, serious inaccuracies, and increased job-related stress. According to Bruce (2008), study showed that workplace distractions cut employee productivity by as much as 40%, and increase errors by 27%. Also, Moloney (2011) citing Loftiness study of 2003 confirmed the importance of natural light and air (ventilation) to worker productivity. The study showed a 3-18% gain in productivity in buildings with daylighting system.

2.2.1 Fixtures and Fittings in the Work Environment and Productivity

Administrative office managers should be knowledgeable about office furniture. The result of selecting improper office furniture may be carry out for a long time, as it is often difficult

discarding the pre-owned furniture, which is commonly purchased rather than leased or rented. Another issue, which is important to consider in enhancing employee productivity is by selecting and using proper furniture and equipment, the important physical factors in the office (Keeling and Kallaus, 1996; Quible *et al.* 1996). Selecting appropriate office furniture is an important consideration in which office managers need to pay more attention to make sure that the ergonomic environment is properly maintained. While ergonomic environment is important in increasing employee productivity, adjustable office furniture, such as desks and chairs, which can support employees in generating their work is recommended, to allow the work comfortably throughout the day (Burke, 2000). The office design encourages employees to work a certain way by the way their workstations are built. In doing so, the company is answering the firm's business plan while making sure their employees have everything they need to work (Al-Anzi, 2009).

Secondly, today most office buildings are designed with air conditioning systems, so the temperature level in one room can remain constant all the time. However, certain factors should come into thought in establishing proper temperature level; for instance obese workers will work best with lower temperature levels, whereas the reverse is true for thin workers. The air quality contains four factors that are: temperature, humidity, ventilation, and cleanliness. A comfortable office environment is a building or room in which workers can generate their work properly as it clean, with proper range of temperature, enough ventilation, and a sufficient humidity. After the temperature level in an office has been set-up properly within the favorable level of humidity, the air in the office still needs to be circulated; otherwise it can increase the temperature, which in turn may cause discomfort. Air flow is also important as it can avoid people inhaling inadequate air. Moreover,

smoking must be illegal in the office. Some small offices still use electric fans to make sure that the air is circulated well (Quible, 1996; Keeling and Kallaus, 1996). In one experiment, Lan *et al.* (2010) investigated the impact of three different indoor temperatures (17°C, 21°C and 28°C) on productivity. They found that employees feel slightly uncomfortable in both the coolest and warmest of these climates, that they were less motivated and that they experienced their workload as more difficult, with a consequent turn down in productivity.

2.3 Communication in the Work Environment and Employees Productivity

Effective workplace communication is a key to cultivation of success and professionalism (Canadian Centre for Communication, 2003). A company that communicates throughout the workplace in an effective manner is more likely to avoid problems with completing the daily procedures, and less likely to have a problem with improper occurrence and will generate a stronger morale and a more positive attitude towards work. When employees communicate effectively with each other, productivity will increase because effective communication means less complains and more work getting done (Quilan, 2001). It removes confusion and frees up wasted time that would have been otherwise spent on explanation or argument (Fleming & Larder, 1999). It makes workplace more enjoyable, less anxiety among co-workers which in turn means positive attitude towards work and increased productivity (Makin, 2006; Taylerson, 2012). Furthermore, another aspect of communication that affects productivity is noise level. Noise has negative influence on communication, frustration levels increase while productivity decreases in relation to persistence and loudness of noise. A reason adduced for this is that spoken communication becomes progressively more difficult as noise levels increase.

Communication is highly functional for work and occurs often in a workplace. Principle of least collaborative effort, people base their conversations on as little combined effort as possible. According to (Kraut *et al.* 1990; Peponis, 2004), informal communication is highly valued for collaboration at work organizations is trying different strategies to increase the likelihood of informal interactions between co-workers. Communication is the key to bring people together at one place to make it as workplace. The organizational communication is key to get involved into better relationships within an organization, to transmit information, to cooperation with each other, to understand and coordinate the work, to improve communication climate and learning, and hence to increase overall workplace satisfaction and an individual's job satisfaction (Ali and Haider, 2010). Salacuse, (2007) indicated that as a result of changing work environments in which employees are more educated and intelligent than past generations, leaders are now required to lead by negotiation. Specifically, he noted that in order for leaders to persuade people to follow their vision, they need to communicate effectively by appealing to the interests of the followers. Cassar, (1999) found that employee participation, which includes such things as involvement in joint decision making, has been shown to have a positive association with positive work attitudes and employee commitment. In that competent communicators must employ communicative resources such as language, gestures, and voice, and in order for supervisors to be perceived as capable communicators. They must share and respond to information in a timely manner, actively listen to other points of view, communicate clearly and concisely to all levels of the organization, and utilize differing communication channels (Stohl, 1984; Shaw, 2005).

Organizational communication does not involve only upward and downward communication, but managers and employees communicate with each other in various ways at different levels. It may be the formal or informal, verbal or non-verbal, written or oral; and its levels include or face to face communication between individuals, group communication among teams and organizational-level communications involves vision and mission, policies, new initiatives, and organizational Knowledge and performance. All the directions and flows of organizational communications are combined into a variety of patterns called communication networks (Ali and Haider, 2010). Social interactions enable the development of common grounds for communication, which increases communication effectiveness and enhances the ability of individuals to work together. As well, through over-layered social ties, team members establish trust that carries over into feelings of safety in sharing ideas about the work process (Krauss and Fussell, 1990; Katzenbach and Smith, 1994). Kotter, (1988) unveiled that effective organizational communication is critical to actively engage employees, foster trust and respect, and promote productivity. The focus on openness in communication between senior management and employees results in improved employee productivity and engagement. Meetings with top executives help to build affinity and trust. Supportive communication is the most significant factor for the existence of an organization. The quality of organizational communication is often referred to in terms of communication climate, which can be described as ‘a subjectively experienced quality of the internal environment of an organization; the concept embraces a general cluster of inferred predispositions, identifiable through reports of members’ perceptions of messages and message-related events occurring in the organization (Kitchen and Daly, 2002; Goldhaber, 1993).

2.4 Work Environment and Employee-Engagement

A recent global survey of employee engagement found that fewer than one in three employees worldwide (31 per cent) are engaged, and nearly one in five (17 per cent) are actually disengaged (Blessings White Inc, 2011). Recent Gallup studies have estimated that the costs of disengagement in lost productivity for Australia is \$39 billion, for the USA \$350 billion, and for Germany 133.6 billion euros (Coffman, 2012; HC Online, 2011; Nink and Ott, 2011). In Albrecht (2012) he argues that to motivate and engage employees, organizations should create open, supportive and fair organizational and team culture, and ensure that jobs are clearly aligned with organizational goals and have the appropriate levels of autonomy, support, and career development opportunities. In a survey of a large multi-national mining company in Australia, Albrecht tests a theoretical model underpinning work engagement using structural equations modeling. He found that the job demands resources (JD-R) model could usefully be elaborated to explicitly include organizational and team level resources and to operationalize job resources as a higher order factor. While job resources have been found to significantly influence engagement and wellbeing, the contributions of contextual and team level resources in the motivational processes implicit in the JD-R model have yet to be fully explored. Albrecht found that beyond the provision of job level resources, organizational, and team level resources are also key motivational constructs which help explain how greater levels of engagement and well-being can be generated. The key message of study for researchers and practitioners is that additional job resources (e.g. job involvement) and additional up-stream organizational and team climate factors (e.g. vision clarity, psychological safety) could

also be assessed for their direct and indirect impact on job resources and engagement (Bakker *et al.*, 2011).

2.5 Working Conditions and Employees Productivity

According to business dictionary “Working conditions refers to working environment and all existing circumstance affecting labor in the work place, including: job hours, physical aspects, legal rights and responsibility organizational culture work load and training”. Gerber *et al* (1998, p.44) defined working condition as: “working conditions are created by the interaction of employee with their organizational climate, and includes psychological as well as physical working conditions” Therefore, we adopt the definition of working conditions as follows: “Working conditions refers to the working environment and aspects of an employee’s terms and conditions of Employment”. In other side productivity is a concept that depends on the context in which it employed. It does not have a singular definite criterion measure or operational definition (Wasiams *et. al*, 1996). These definitions suggest that productivity is the measure of economic performance, as well as resource used to produce goods and services (Bernardin & Russell, 1998, p. 9, Ross, 1981). But, Wasiams *et al.*, (1996) says this concept depends the context in which is employed and does not have operational definitions. Firms that derive their productivity advantage from firm-specific knowledge may wish to provide better working conditions in the hope that this would reduce worker turnover and minimize the risk of their productivity advantage spilling over to competing firms (Fosfuri *et al.*, 2001; Glass and Saggi, 2002). If non-monetary working conditions are associated with higher productivity, the employer should pay more for the added productivity of employees in order to not losing the employees. In facts, “as long as more than one employer offers good working conditions

for a particular category of worker, employers may be forced to bid up their wages – possibly as high as the marginal value of the worker’s product. Whether such a positive wage differential exists is an empirical question. If one is found, it would represent a lower bound on the value of actual differences in productivity, bearing in mind that some offsetting compensating wage differential may also be reflected in the observations” (Gariety and Shaffer, 2001). Work environment includes some factors, which contributes either positively or negatively to achieving maximum employees’ productivity (Elywood, 1999).

The factors that contribute either positively or negatively to employee productivity are temperature, humidity and air flow, noise, lighting, employee personal aspects, contaminants and hazards in the working environment, types of sub environment. According to Yesufu (1984), the nature of the physical condition under which employees work is important to output, Offices and factories that are too hot and ill-ventilated are debilitating to effort. There should be enough supply of good protective clothing, drinking water, rest rooms, toilets, first aids facilities etc. Both management and employees should be safety conscious at all times and minimum of requirement of the factories act must respect. Bornstein (2007) states that in organizations where employees are exposed to stressful working conditions, productivity are negatively influenced and that there is a negative impact on the delivery of service. On the other hand if working conditions are good, productivity increase and there is a positive impact on the delivery of service.

2.6 Working Hours and Productivity of Employees in the Work Environment

A substantive cost to employers occurs when financially troubled employees use Work hours to deal with personal money matters. The use of time on the job to handle personal issues results in productivity losses. Joo (1998) noted that previous research has not used work time to handle personal financial matters as a factor in measuring productivity. According to research conducted by a national consumer credit counseling agency, almost 60% of the people who telephone their counselors are calling from the workplace (Amsel, 1998). This counseling agency operates services 24 hours a day, six days a week and therefore is not limited to providing assistance during traditional work hours. Although Kim (2000) categorized work time used as positive and negative, any amount of work time used to handle personal financial matters, whether positive or negative, may be an indicator of lost productivity. Most people did not experience serious negative effects after one night of work, but problems can emerge following a series of consecutive night shifts. These include fatigue, decreased productivity and emotional exhaustion (Knauth & Hornberger, 2003). According to a number of authors (Hill *et al*, 1998; Igbaria *et al*, 1999; Kelliher & Anderson, 2010; Messenger, 2004; Golden, 2012), workers' ability to choose their working time arrangements has a positive impact on job performance and productivity. This choice turns out to be a powerful factor in determining an increase in productivity. It results in a more satisfied workforce who is more committed and productive. Conversely, ignoring this issue may lead into a situation in which employees act contrary to the organization's interests, through increased absenteeism, lateness, reduced focus on the job tasks, attention being diverted to personal matters, and ultimately searching for alternative jobs and resigning. Visser (1989) shows that over half the private firms reduced operating hours in the early 1980s and that this working hour's reduction was mainly used to cut unproductive hours, mostly by interrupting company operations between Christmas and

New Year. According to Bosch and Lehndorff (2001) the working hour's reduction went hand in hand with improvements in relative international competitiveness because of the additional productivity gains by the cuts in working hours.

2.7 Workload and Productivity of Employees in the Work Environment

Workload is generally defined as the extent of the processing capacity that is expended during the performance of a task and thus involves the interaction between resource supply and task demand (Young *et al.*, 2008). According to (DiDomenico and Nassbaum, 2008) support this definition and state that workload is determined by the relationship between task demands, the circumstances under which that task takes place and the perceptions, actions, skills and knowledge of the individual performing the task. The task demands may include physical actions, cognitive tasks and/or a variety of other factors. These definitions suggest that workload is concerned with the relationship between the task demand and the person's resources, which include skills, knowledge, behavior and task perception (Young *et al.*, 2008; DiDomenico & Nussbaum, 2008). Workload can also be defined as the expenditure incurred by a person, given their capacities (resources), while achieving a particular level of performance on a particular task with certain demands (Hart & Staveland, 1988). Increased workload can improve short-term productivity, but it can increase long-term costs, as stress and illness among employees lead to poor judgments and low productivity (petterson & Armets, 1998). According to the points if the workload increased short term productivity improve, but it can decrease long-term productivity.

Workload refers to the intensity of job assignments, (Parveen *et al*, 2013). It is a source of mental stress for employees. Stress is an active state of mind in which human being faces both an opportunity and constraint (Robbins, 2011). Allen, (1996) defined workload as the total amount of time a faculty member devotes to activities like teaching, research, administration, and community services etc. A study conducted by Moy, (2006) opined that clerical and professional workers' association found that 65.5% of workers believed a five-day work week would help them better manage their private matters. Whereas half of respondents believed that this practice would allow them to spend more time with their families and improve their quality of life which helps in improving their productivity at work. Numerous studies found that job stress influences the employees' job satisfaction and their overall performance in their work. In fact, modern times have been called as the "age of anxiety and stress" (Rehman *et al*. 2012). Excessive work interference with family is also associated with greater stress mostly, job burnout, increased absenteeism and higher turnover (Allen *et al.*, 2000; Anderson *et al.*, 2002). Jex and Beehr, (1991) reported that strains associated with being overworked have been found to be uniformly negative across behavioral, psychological, and physiological outcome domains. Kirchmeyer, (1995) indicated negative links in between experience of work/nonworking conflict and organizational commitment. Workload is an opportunity for the employees to learn and prosper more quickly. As employees do their jobs they gain more work experience, which enhance their exposure. It is also viewed that employees who have enough work to do remains more active while work-less employees leftover lazy. Workload pressure can be positive leading to increased productivity. Under utilization of human skills or failing to

reach the full potential of the employees is also one cause to increase stress. Employees who have the capabilities to perform a job enjoy workload.

However, when this pressure becomes excessive it has negative impact (Shah *et al.* 2011).

All types of stress including work overload have a definite impact on the individual and the organization. Both physical and mental illness renders the employee unfit for work, and combine both to decrease the satisfaction obtained from work and reduce job performance and productivity levels. A long - term heavy workload can affect an employee's physical or mental health, performance, or productivity. Heavy workloads have been shown to have a negative impact on turnover (Malik and Ahmad, 2011).

2.8 Combining Work Environment Factors, Employees Family and Productivity

Work is unequivocally an important sphere in most people's lives occupying a significant component of their sense of self. Beyond the financial benefits that work provides, one's job/career is known to bring life satisfaction and personal growth (Mannheim and Schiffrin, 1984). Yet, the work environment can be a considerable source of strain. An increasingly competitive market combined with a lack of resources and a shortage of manpower can create a stressful and even hazardous environment for workers. Although work provides many great opportunities for self-fulfillment, its accompanying demands and pressures can lead to increased work interfering with family (WIF), resulting in a number of physical, mental, and interpersonal outcomes.

First, work interfering with family (WIF) has been shown to diminish feelings of work satisfaction, family satisfaction, and life satisfaction (Ford *et al.*, 2007). For instance, several studies using different samples across varying work environments have found a

negative correlation between WIF and job satisfaction as well as life satisfaction (Allen *et al.*, 2000; Judge *et al.*, 2006; Kossek and Ozeki, 1998). Other studies have found workfamily interference to negatively impact life satisfaction (Mesmer-Magnus and Viswesvaran, 2005). Given that Greenhaus and Beutell (1985) have proposed that the relationship between work and family is bidirectional (or reciprocal), past research has shown that work interfering with family is also related to family interfering with work (FIW), (Frone *et al.*, 1992, 1997; Netemeyer *et al.*, 1996). In other words, it is expected that when an employee experiences conflict in one domain, chances are that this individual may also experience conflict in other life domains.

Second, WIF has been related to several indicators of physical and mental health (Judge *et al.*, 1994). For instance, measures of WIF have been associated with incidences of clinical depression and work distress (Frone *et al.*, 1992), emotional exhaustion (Leiter and Durup, 1996; Se´ne´cal *et al.*, 2001), and experiences of burnout (Kossek and Ozeki, 1999). Thus, it appears that WIF is a worthwhile variable to investigate given that it is often the result of unfavorable work conditions and individual differences. Moreover, it is linked to important physical and mental health problems. Thus further empirical scrutiny into the work environment factors and individual difference variables as antecedents of WIF, along with its associated outcomes, is warranted.

2.9 Work Environment and Employees Turnover Intentions

Individuals spend a large amount of their life-time working, which plays a central role in society (Hochschild, 1997). It has been well established that the circumstances of work are a key sources of individual well-being (Lane, 1998). In the last few decades a large amount

of effort has been expended in attempting to discover how to recruit and retain good workers and generate higher levels of job satisfaction. This concept has raised interest across such diverse fields as: psychology, economics, industrial relations, and especially management as it highly correlates with job performance and thus is a crucial factor to firm success (Judge *et al.*, 2001). Research has shown that low levels of job satisfaction can have negative effects upon the way an individual carries out duties and their performance in the workplace. This is important in a government organizational setting as the levels of job satisfaction are directly correlated to the on-the-job officer performance (Hackman and Oldham, 1976). This viewpoint is supported by Skolnick and Fyfe (1994), who indicated that employees dissatisfaction translated into poor job performance, low effort (or “mailing it in”) and in the breakdown in the relationship with the public and other employees (often as aggression). The nature of government work creates a challenging working environment and as such it is unsurprising that retaining officers over the longer term is of great importance to both government departments and policy makers. These work environments are strategically important and essential for a well-functioning society, this is primarily due to any inefficiencies in government operations can induce large negative externalities for society. Thus, the conditions of government employees are not only characterized as being both physically and emotionally demanding, but it is generally seen as one of the most stressful work (Robertson and Cooper, 2004). Retention of experienced employees is vital for maximizing performance and successful outcomes, as it lowers the cost of training and recruitment. Some research has suggested that the high turnover rates are due in part to low levels of job satisfaction (Freeman, 1978), which makes it more difficult to attract and train new employees.

Evidence for this link has been demonstrated through meta-studies of research findings into turnover rates (Griffeth *et al.*, 2000). There are two major advantages in retaining experienced employees: first, it is costly and time consuming to recruit new employees; and second, when older employees quit, they take away a large amount of job related human capital. Even with the plethora of research in recent years, there has been relatively little investigation specifically conducted on intentions to quit or on job satisfaction among government employees. A detailed general analysis of the determinants of workers' quit intentions is missing, even though such a factor has been a sub-category of overall job satisfaction indices for some time (Caplan *et al.*, 1980; Mowday *et al.*, 1979). What are the advantages of focusing on workers' intentions to leave and not just the actual quitting behavior? First of all, employers and supervisors should be interested in having a "sensor" or "indicator" that helps to predict whether or not their employees are seeking to quit. Second, the high turnover rates are connected with the heavy transaction costs of as losing human capital stock as well as hiring and training costs, which can have a large effect on firm performance (Judge *et al.*, 2001). It would appear that it is the nature of government work, with its high stress and fluctuation in demands that are the root cause of high turnover. For this reason employers should have a natural interest in determining the root causes of workers' quitting intentions and the ability to identify workers who are considering quitting. From a policy and management perspective it is important to understand the incentive structure of current workers and not just those who have already left, as employers are still able to influence current workers' decisions and attitudes about whether or not to quit their current jobs. Moreover, generating feedback from individuals who have already left may generate noise and biases, as they may ex post

justify their quit decision and draw a biased picture of the prior work environment and its problems.

The existing literature on government employees has strongly focused on the demographic relationships underpinning job satisfaction, such as education (Carter and Sapp, 1990), race (Haarr and Morash, 1999), gender (Sullivan, 1993), intelligence (Ganzach, 1998), or job connected factors such as experience (Dantzker, 1994). It is important to have a stronger focus on the impact of the working conditions and environmental aspects, which should include stressors, strains and traumatic events.

Within this work we follow the O'Driscoll and Dewe (2001) definitions: stressors are characteristics of the work environment that cause strain and strains are the labels for the resulting physical or psychological impacts such as burnout or ill-health. In the traditional models of job satisfaction (Herzberg, 1968; Locke, 1976) the work environment was included as important factor determining of job satisfaction. From a theoretical and empirical perspective it is important to analyze the labor force where individuals have a similar job profile, as many of the potential unobserved factors are common across a large group of individuals reducing noise. It is well understood that government employees suffering from high levels of strain through performing work that is both physically and emotionally draining (Brown and Campbell, 1990; Dick, 2000; Gershon, 2000; Gershon *et al.*, 2009; Gudjonsson and Adlam, 1985; He *et al.*, 2002; Morash *et al.*, 2006; Stotland, 1991).

However, the nature of the job itself is also able to derive positive job satisfaction (Zhao *et al.*, 1999) and by working in this particular job, intrinsic feelings can be generated that

produce positive attitudes about that duty (Tietjen and Myers, 1998). This concept is supported by Lane (1998), who stresses that for “those seeking jobs, pay may be the most important consideration, but for the employed, the intrinsic feature of work not easily priced by the market, is more important” (Lane, 1998, p. 478). Griffeth *et al.* (2000) supports the notion of satisfaction beyond payday, by demonstrating that while pay is a significant factor in turnover rates, it only accounts for 6 percent of the variance, whereas distributive justice is significant and has an almost eight fold larger impact. The examination of the determinants of job satisfaction and, even more importantly, an analysis of workers’ quitting intentions is therefore a relatively underexplored topic in government literature. Little has been done to determine the size or impact of environmental and organizational factors despite the usefulness of such an analysis being indicated some years ago. Brown and Campbell (1990,), for example, stressed that: empirical evidence is somewhat scant in providing a systematic account of those aspects of a job which are stressful or the impact that these have on workers. In practical terms this makes designing successful interventions difficult in both identifying type of intervention and targeting appropriate recipients. Some of the factors we explore in this study are: physical, psychological strain and traumatic event stressors, as well as perceptions of workplace fairness and acceptance, work-life balance, and social capital.

2.10 Consequences of Ineffective Work Environment

Previous research has demonstrated a strong link between low levels of job satisfaction and work issues such as: high turnovers, absenteeism and lower work performance (Clark *et al.*, 1998; Drago and Wooden, 1992; Freeman, 1978; Gordon and Denisi, 1995; Judge

et al., 2001). Nevertheless, it is possible that the higher rate of observations for absenteeism and lower levels of work performance could be artifacts of a decision to quit having already been made by a worker (Griffeth *et al.*, 2000). Work attitudes have been identified as some of the best predictors of staff turnover (Griffeth *et al.*, 2000). That is, workers that report low levels of job satisfaction and have low levels of job involvement are much more likely to be searching for an alternative employment. Furthermore, individuals who indicated they were actively searching for alternative employment were much more likely to quit. Meyer and Allen (1997) extend the intentions to quit by assessing the opinions of the employee to company loyalty, employee mobility and willingness to leave the current employment for better monetary incentives. He used the following question as a proxy measure of workers' quit intentions: "It is likely I will look for another full-time job outside this department within the next year". Possible answers ranged on a five-point Likert scale (Likert, 1932) from "strongly agree" to "strongly disagree". About 65 percent of the people answered with "disagree" or "Strongly disagree", while approximately one third of the sample is not so sure about staying in the job, answering either with "strongly agree", "agree" or "neither agree/disagree".

In more recent times the study of job satisfaction has shifted away from the purely performance enhancing studies to focus on the increasingly costly area of employee retention. Low levels of job satisfaction as a result of poor work environment have been linked to higher rates of quitting and high rates of absenteeism (Drago and Wooden, 1992; Freeman, 1978; Griffeth *et al.*, 2000).

2.11 Employees Attitude Towards Physical Working Environment

Distracting noise: Noise in open offices create, among others, stress, disturbances and decrease concentration, and through all these it increases the individual workload (Witterseh *et al.* 2004; Jensen and Arens, 2005; Evans and Johnson 2000; Sundstro'm *et al.* 1994; and Roper and Juneja, 2008, 2007). **Lack of privacy:** Individuals suffer from a lack of acoustical and visual privacy (Bharucha-Reid and Kiyak, 1982; Block and Stokes 1989; and Oldham and Rotchford 1983). **Disturbances:** The different features of an open plan solution, such as noise and the presence of others, cause disturbances to work Processes (Lee and Brand 2005; and Furnham and Strbac, 2002). **Presence of others:** The presence of others may be perceived as distracting even when they are just present (Bharucha-Reid and Kiyak, 1982). **Density:** If the workstations are placed densely, the employees may perceive this density in a negative manner (O'Neill and Carayon, 1993; and Sundstro'm *et al.* 1980). **Ambient conditions:** The ambient conditions in buildings built for other types of work are not always optimal in an open plan setting (Hedge 1982). **Problems in social relations/Decreased teamwork:** The assumption has been that the advantages of open plan solutions include better social relations and increased teamwork. Some studies suggest that this is not the case (Allen and Gertsberger, 1973; Zahn ,1991; Oldham and Brass 1979 and Becker *et al.* 1987)

2.12 Work Environment and Presenteeism

Many studies have shown that an unfavourable psychosocial environment increases the risk of mental and physical illness, as well as absenteeism, or sickness absence. However, more costly than absenteeism is presenteeism, where a person is present at work even though disabled by a mental or physical illness.

A variety of psychological, economic, social and medical aspects have been studied in relation to absenteeism due to not conducive work environment. Studies in the stress prevention field often suggest that stress prevention programmes are associated with reduced sickness absence (Bond & Bunce, 2001; Cooper & Kompier, 1999; Kompier *et al*, 1998), although this premise is not constant across all studies. However, little research has been conducted on going to work while sick, or 'presenteeism', and, according to a recent review by Sanderson and Andrews (2006), it has been used and conceptualized in different ways. Some researchers measure it by the number of days where usual tasks were impaired by a health condition (cutback days), or by the extent to which the quality or quantity of work was affected. Others have defined presenteeism as the absence of sick leave in persons with health conditions. According to Aronsson *et al* (2000), presenteeism refers to 'the phenomenon of people who, despite complaints and ill health that should prompt rest and absence from work, are still turning up at their jobs' (p.503). This definition implies that productivity loss and cutback days are, in fact, consequences of presenteeism. Little research has been carried out to understand why people might choose to work when they are sick, instead of taking time off. Indeed, it is often believed that low sickness absence rates indicate low morbidity and a healthy workforce, yet this assumption is questionable. Chatterji and Tilley (2002) suggest that 'any attempt at reducing the potential productivity loss from absence has to be offset against the potential productivity loss from presenteeism' (p.686). As argued by Kristensen (1991), the individual is not passive; he or she makes a conscious choice of whether or not to attend work. For example, McKevitt *et al* (1997) suggest that, even though high levels of occupational stress can lead to increased rates of absence, economic uncertainty and changes in work practices could foster presenteeism by

discouraging employees to take sick leave, and so induce artificially low absence rates although the work environment is poor.

2.13 Workplace Factors Affecting Employee Performance

According to Chandrasekar (2011), the most important workplace environment factors may impact on performance. A close consideration of each of these factors is also very useful in ensuring that employees apply the skills they learn during training programs once they return to their workplace.

Goal-setting: Employees are involved in setting meaningful goals and performance measures for their work. This can be done informally between the employee and their immediate supervisor or as part of an organization's formal performance management process (Roelofsen, P. 2002). **Performance feedback:** Information on how the employee is performing is fed back regularly to employees. This consists of both positive feedback on what the employee is doing right as well as feedback on what requires improvement Sparks *et al* (1997). **Role congruity:** The role that the employee is required to perform is consistent with their expectations on joining the organization and any subsequent training. The organization's role expectations are consistent with tasks allocated by the employee's immediate supervisor (Smith *et al*, 1983). **Defined processes:** The organization constrains the variability of how work is actually performed through documenting processes and communicating such expectations to employees. **Workplace incentives:** The organization determines what motivates its employees and sets up formal and informal structures for rewarding employees behaving in the way required. **Supervisor support:** Immediate supervisors act as advocates for employees, gathering and distributing

the resources needed by the employees for them to be able to do a good job and providing positive encouragement for a job well done (Kahya, E. ,2007). **Mentoring/coaching:** Skilled and respected people are available to employees to help them perform better in their current role and to assist them develop further into a future role. **Opportunity to apply:** Individual workloads and organizational systems and processes do not hinder employees from applying established skills or from practicing newly learned skills. **Job aids:** Their work is to be made easier and help minimize error rates and customer dissatisfaction by supplying job aids. These can include templates, guides, models and checklists. **Environmental factors:** Environmental factors such as temperature, lighting and ventilation can have a direct impact on health - for example very high temperatures can lead to heat stress and heat exhaustion. **Physical factors:** Physical factors in the workplace such as poor layout or overcrowding can lead to common types of accident such as tripping or striking against objects (De-Croon *et al*, (2005).

2.14 Productivity in the Work Place

Investments in buildings, equipment, technology, processes and procedures are insignificant unless the people who use and apply them are performing, since a business cannot exist without people. Nevertheless, it is easier to measure the return on these investments than it is to measure the productivity of people as this is the hardest thing to measure (The Insider, 2002). Generally, productivity refers to the relationship between the input provided and the output generated by a production or service system. Thus, productivity is defined as the efficient use of resources such as labour, land, capital, materials, energy and information in the production of various goods and services (Prokopenko, 1987). It is often not effective to provide employees with the needed

resources and expect that productivity will increase automatically. This is because; productivity will only increase when a further consideration or benefit has been given to that employee for which the assigned job will be performed (The Insider, 2002). Accomplishing more with the same amount of resources or achieving higher output in terms of volume and quality for the same input also depicts higher productivity (Prokopenko, 1987). Therefore, the use of variety of strategies that focus on employee satisfaction, health, and morale by companies could be used to address issues on productivity in order to maintain high worker productivity (Corporate Leadership Council, 2003).

Alternatively, productivity can be defined as the relationship between results and the time takes to accomplish them. Thus, the less time it takes to achieve desired results, the more productive a system is (Prokopenko, 1987). Then again, employee productivity depends on the amount of time an individual is physically present and the degree to which that individual is “mentally present” at a job or functioning efficiently while present at a job (Corporate Leadership Council, 2003).

2.14.1 Productivity Measurement

There is a rich body of literature (Solow, 1956; Griliches and Jorgenson, 1967) addressing the issue of how to measure productivity as a ratio of output to all types of inputs such as labour, capital, material which is referred to as total factor productivity (as cited in Dogramaci & Adam, 1985). The single or simple factor that is the ratio of output to a specific type of input such as sales per employee is the most common type of productivity measure (Anderson, Fornell & Rust, 1997). Throughout recorded history, there have been

studies about what we call today as productivity, of which one of the first men to study the productivity of manual work was Frederick Winslow Taylor (Drucker, 1999).

Measurement within corporate environments followed the tradition of Frederick Taylor and his *Principles of Scientific Management*, which called for breaking down jobs into discreet behaviours or task elements, segmented and integrated optimally to minimize the time required to perform the overall activity (Brand, 2009). In recent years, evident in literature is the theme of knowledge work productivity, which was first described by Peter Drucker. According to Drucker, the rise in the productivity of manual work was one of the key events of the 20th Century whilst knowledge worker productivity is the most important challenge for management in this 21st Century (Drucker, 1999).

A notable characteristic of knowledge work productivity is that its result is often to a large extent intangible, partly reflecting the unstructured and creative aspects of knowledge work itself. Thus, the typical productivity measurement method which is based on the physical quantity of output is of no use to knowledge work organizations (Dogramaci & Adam, 1985). Among Drucker's six major factors that determine knowledge worker productivity are the facts that (i) "productivity of the knowledge worker is not - at least not primarily - a matter of the quantity of output. Quality is at least as important (ii) knowledge worker productivity requires that the knowledge worker is both seen and treated as an 'asset' rather than a 'cost'." It requires that knowledge workers want to work for the organization in preference to all other opportunities" (Drucker, 1999, p. 123).

Many productivity models developed as well as econometrics including the Return on Investment (ROI) and Return on Assets (ROA) have influenced the measurement of productivity in early office environments. Unfortunately, most of these have assumed conceptual resemblance of what office workers produce to what factory workers produce (Brand, 2009). In measuring Knowledge work productivity, quality is regarded as the essence of the output. This means that to determine the volume of work that has been performed as it is with manual work, quality has to be obtained; not minimum quality but optimum quality if not maximum quality (Drucker, 1999).

2.15 Classification of Work Environment

There are many different types of work environment. Several attempts have been made to put the different types in an organized way, as seen with the Holland Codes proposed by John Holland (2015), a psychologist with an interest in matching people with work environments that suit their personalities. Holland's approach to the types of work environment looked at the nature of the work done. He identified six different environments: realistic, social, enterprising, artistic, investigative, and conventional.

In realistic environments, work is more hands on, while investigative environments place a high priority on thinking and theoretical discussions. Enterprising environments involve more self initiative to start and innovate projects. Conventional work environments use set protocols and routines, such as databasing customer information, while artistic environments promote creativity and the production of works of art. Social work environments involve a high degree of interaction, as seen in customer service and teaching (Dwyer *et al*, 1991).

Another way to look at work environments is to assess the physical surroundings, differentiating between offices, warehouses, retail stores, scientific research facilities, fieldwork sites, and so forth. These work environments may be suited to different kinds of personalities and career goals. The physical environment can also have an impact on suitability for work; some people do not enjoy the rigid and controlled climate of a lab, for instance, or prefer working outdoors. Concerns about conditions in different types of work environment may be an issue for some job seekers with worries about their ability to thrive in physically demanding or boring environments (Salin, 2003).

The social and psychological climate can also be a metric to use when distinguishing between different types of work environment. Some workplaces have very rigid chains of command, while others may be more flexible and egalitarian. Employees may be encouraged to participate, offer feedback, and shape their environment, or could be expected to focus on tasks without criticizing their employers or supervisors. Some workplace climates can become hostile because of a tolerance for harassment or ferocious competition, while others are more friendly and relaxed. Woodward & Psych (2000) classify work environment as physical environment and social environment and administrative environment. The **Physical Environment includes** Work Load, Technology/Equipment, Availability of material supply, Shift timings, Working hours and etc. The **Social Environment also consist of** Interpersonal Relations, Multiple teams, Management Style / Support, Status at work, Autonomy, Decision Making, Culture and Climate. The last one which is **Administrative Environment comprises** Organizational

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CHAPTER THREE RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research strategy, design, process and the techniques adopted to collect the relevant data for the study as well as the data analysis techniques deployed.

3.2 Research Design

According to Cooper and Schinder, (1998), a research design can be defined as a plan for selecting sources and type of information used to answer the research questions. The research design for this study was the survey research design to assess the relationship between work environment and employee's productivity in government organizations. This is therefore quantitative in outlook. This design was selected because Robson (2005) explained that a survey research comprises a cross-sectional design in relation to which data are collected predominantly by questionnaire or by structured interview on more than one case (usually quite a lot more than one) and at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables (usually many, more than two) which are then examined to detect patterns of association.

The strategy for the research is case study and the choice of method is mono method. Thus, it is mono method because only quantitative method was used to collect and analyze the data.

3.3 Population of the Study

The population of this research comprised all the employees of Obuasi Municipal Assembly. The Obuasi Municipal Assembly which has total staff strength of 255 employees was used as the case study. Polit & Hungler (1999:37) refers to the population as an aggregate or totality of all the objects, subjects or members that conforms to a set of specifications. The population is set of all units that the research covers, or to which it can be generalized (Neuman, 2006). The term “units” is employed because it is not necessarily people who are being sampled-the researcher may want to sample from a universe of nations, regions, schools, etc. (Bryman, 2001).

3.4 Sample Size and Sampling Procedure

The process of selecting a portion of the population to represent the entire population is known as sampling (LoBiondo-Wood & Haber 1998:250; Polit & Hungler 1999:95) A sample is referred to as the percentage or fraction of the population that answers the research question (Fowler, 1988). It can be said that the reasons for undertaking surveys is to enable the researcher generalize from the sample to the population that the hypothesis regarding attitudes, behaviour among others can be made (Babbie, 1990). Thus how respondents are selected for a particular study is very critical for the success or otherwise of the study. The size of the sample is largely determined by calculating what could be achieved with the resources available during the limited duration of the study. Since

sampling is a subset of the population of interest to the researcher, the sample for the study was 100 employees of Obuasi Municipal assembly. Stratified random sampling was used to select the respondents for this research. This is used because, it ensured that all the strata of the population were fairly represented and all cases within each stratum had equal chance of being selected. This made it possible to answer the research questions and achieve the objectives of the study. In this case, the departments of Obuasi Municipal Assembly were divided into three strata, namely central administration, decentralized administration and other agencies/organizations of the Municipal Assembly. For two of these strata, 33 employees each were selected using simple random sampling. In the remaining strata, 34 employees were selected using the same simple random sampling technique applied in the first two strata.

3.5 Research Data Source

This research relied on both primary and secondary sources to achieve its objectives. The survey method was used in this study. The essence of deploying the survey method in this research was to make sure that the findings and results would be generalized. Data was collected from all relevant sources, secondary (journals, periodicals, textbooks, websites, etc) and primary (questionnaires).

3.5.1 Primary Research Data

The main research collection tool of the primary data was done through administering a survey questionnaire to the employees of Obuasi Municipal Assembly. All of the questions asked in the study were closed-ended and open-ended. Closed-ended questions were used because it allowed answers within a limited set and it was used essentially to gather factual

data such as gender and age, as well as information on attitudes and opinions and the open-ended questions allowed for flexibility on the part of respondents.

In a study by McNamara, (2008), open-ended questions solicit subjective data, generate a wider variety of responses and better reflect the opinions of respondents since it is impossible to predict all forms of opinions. Also, closed-ended questions make it easier to generate statistical analysis on a larger number of participants. This actually enables the researcher to have a high degree of control over the questionnaire (Oppenheim, 1996).

3.5.2 Secondary Research Data

Secondary data was also used as well. Secondary data is data already collected for some other purposes. The secondary data sources include but are not limited to published articles, books, reports related to the subject area, as well as internet sources. These sources were generally used in the literature review chapters to develop the arguments that serve as the basis for the empirical study.

3.6 Data Collection Method

This research used quantitative research methodology in order to effectively achieve its objectives. Research can be classified into qualitative and quantitative. Qualitative methods focus on the diction, words and observing the subjects in order to describe reality (Amaratunga *et al*, 2002). Quantitative methods on the other hand come from the academics and it emphasizes serious belief and trust in figures which are used to stand for opinions and concepts. It has been said that the last two decades has seen intense debates about the comparative strengths and advantages of the two approaches. As stated by Amaratunga *et al*, (2002), even though the precise foundation of the two approaches differs

among researchers and authors in terms of definition, there exist a major concurrence with regard to the basic debates and their ramifications for conducting research (Amaratunga *et al*, (2002).

3.7 Research Instrument

The research was carried out by the use of a questionnaire. A questionnaire is a written list of questions, the answers to which are recorded by respondents (Kumar, 1996). The vital goals of a questionnaire are to collect accurate data with maximum reliability and validity, and to obtain information relevant to the objectives of survey. Questionnaires are ubiquitous and employed more frequently than other methods (Cooper and Schindler, 1998). In the questionnaire, respondents are required to read questions, interpret what is expected and write down or record with answers independently (Kumar, 1996).

The likert scale was employed since it is deemed to be an excellent means of measuring the attitude of respondents towards an attribute. According to (Myers, 1999), the likert scale is user friendly and reduces uncertainty, confusion and misunderstanding.

3.7.1 Administration of the Research Instrument

The research was carried out by the use of a questionnaire. There are three ways of collecting data- observation, direct communication (through interviews and questionnaires), and through using secondary data (Pizam, 1987). Two of the three categories of collecting data (direct communication and use of secondary data) were used for this project. The researcher administered the questionnaires to the employees of Obuasi Municipal Assembly himself. Responses were judged to be unacceptable when

respondents' scoring did not differ. For instance, when respondents answered all questions with the same response, such responses were struck out and rejected so as not to affect the validity of the study. Again, where respondents failed to answer all the questions, (less than 10%), their responses were equally rejected and were not part of the data analysis.

3.8 Data Analysis

The research was carried out by the use of a questionnaire. The raw data obtained from a study is useless unless it is transformed into information for the purpose of decision making (Emery and Couper, 2003). The data analysis involved reducing the raw data into a manageable size, developing summaries and applying statistical inferences. Consequently, the following steps were taken to analyze the data for the study. The data was edited to detect and correct, possible errors and omissions that were likely to occur, to ensure consistency across respondents. The data was then coded to enable the responses to be grouped into limited number of categories. The SPSS software was used for this analysis. Data was presented in tabular form, graphical and narrative forms. In analyzing the data, multiple regression and descriptive statistical tools such as bar graph complemented with mean and standard deviations were used.

3.9 Ethical Issues

A lot of ethical issues were taken into consideration before, during and after the study. All articles, journals, books among others that were used in this study had been properly referenced. Before the researcher administered the questionnaires and interviews the Obuasi Municipal Assembly staff, an informal meeting was held with the management of the Assembly for permission to be granted. Not only that but the sanctity and privacy of

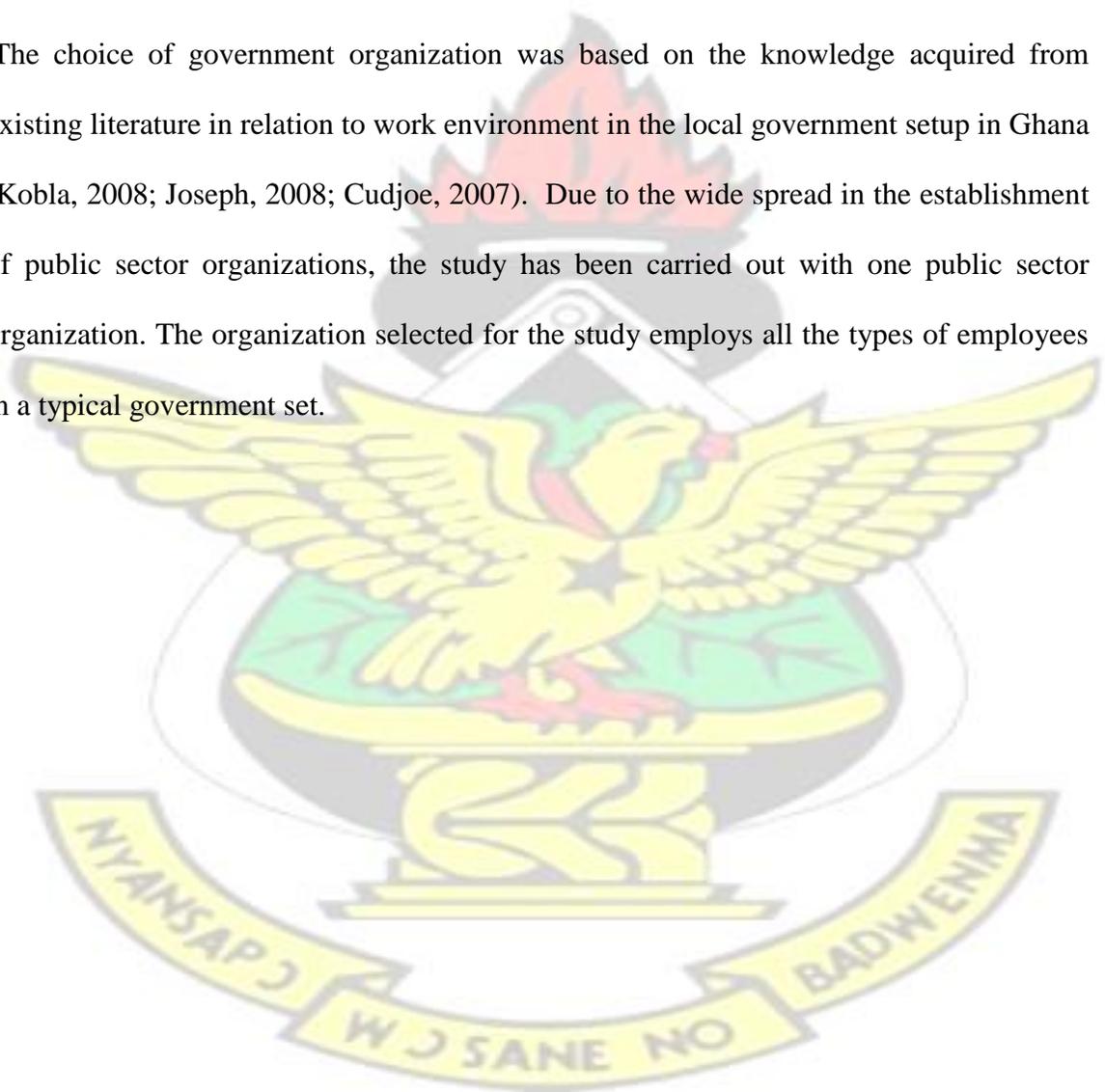
the respondents of the questionnaire were considered. Respondents were asked if they have the luxury of time to fill the questionnaires. More importantly, the purpose for which the research was conducted was explained to respondents before they were handed with the questionnaire to fill. The identity of the individual respondents to the questionnaire was another ethical issue that was critically considered in this study.

3.10 Profile of Obuasi Municipal Assembly

This study covered the effects of work environment on productivity of employees in government organizations specifically employees of Obuasi Municipal Assembly. The Obuasi Municipal Assembly is one of the Thirty (30) Administrative Districts in the Ashanti Region of Ghana. The Obuasi Municipal Assembly, which used to be part of the former Adansi West District Assembly, came into being by virtue of the Executive Instrument No. (E.I. 15) of 15th December 2003 and Legislative Instrument (L.I. 1795) of 17th March, 2004. The Municipality is located between latitudes 5 °35'N and 5 °65'N, and longitudes 6°35'W and 6°90'W. It covers a total land area of 162.4 square km. It is located in the Southern part of the Ashanti Region of Ghana and about 64km from Kumasi, the regional capital. There are 62 communities in the municipality with 30 Electoral Areas, and five (5) zonal councils. The Municipality is bounded on the south by Upper Denkyira District of the Central Region, East by Adansi South, West by Amansie Central, and North by Adansi North and has Obuasi as its capital town. The area is under the traditional authority of the King of Ashanti. The area has a Paramount Chief who supervises activities of various sub-chiefs of all the communities. The whole system is therefore a local form of decentralization. Such traditional set-up gives rise to popular

participation and smooth development. This also explains the strong communal spirit and absence of conflicts amongst the people. In terms of ethnicity, the Municipality is cosmopolitan. Every known ethnic group in Ghana is represented. This is as a result of the Mining and other related socio-economic activities going on in the area. Despite this the predominant ethnic group is the Akans.

The choice of government organization was based on the knowledge acquired from existing literature in relation to work environment in the local government setup in Ghana (Kobla, 2008; Joseph, 2008; Cudjoe, 2007). Due to the wide spread in the establishment of public sector organizations, the study has been carried out with one public sector organization. The organization selected for the study employs all the types of employees in a typical government set.



CHAPTER FOUR

ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

In an attempt to achieve the objectives of the study, the chapter has statistically assessed the effect of work environment on the performance of the employees of Obuasi Municipal Assembly (OMA). In addition to this, the chapter brings to light the effect of work environment on the performance of sections of the employees of OMA. Prior to the above the study examines the work environment of Obuasi Municipal Assembly.

4.2 Profile of Respondents

A response rate of 78% was achieved for the 100 questionnaires administered to the employees of Obuasi Municipal Assembly. From the analysis 43 of the respondents were males and 33 were females representing 55.1% and 42.3% respectively. Two of the respondents declined to declare their sex and they constituted 2.6% of the total respondents. The positions of the respondents were so many that they were grouped into senior staff and junior staff. Of the total respondents, 57.9% were junior staff and 42.1% were senior staff. Regarding their years of experience 35.1% had one to five years of experience, 19.5% had six to ten years of experience, another 19.5% had twenty one to twenty five years of experience and 16.9% had sixteen to twenty years of experience. Only 9.1% had eleven to fifteen years of experience. The departments of the Obuasi Municipal Assembly were many so they were categorized into three major sections namely central administration, decentralized departments and other agencies/organizations of the Assembly. The central administration constituted 31.6% of the respondents, the

decentralized departments represented 36.8% and the respondents from the other agencies were 31.6% of the total valid responses.

Table 4.1: Years of Working Experience of Respondents

	Year of Working Experience	Frequency	Valid Percent	Cumulative Percent
Valid	(1- 5) years	27	35.1	35.1
	(6 - 10)years	15	19.5	54.5
	(11 - 15)years	7	9.1	63.6
	(16 - 20)years	13	16.9	80.6
	(21 -25)years	15	19.5	100.0
	Total	77	100.0	
Missing	NAP	1		
	Total	1		
Total		78		

Source: Field Data (2015)

Figure 4.1 Sex of respondents

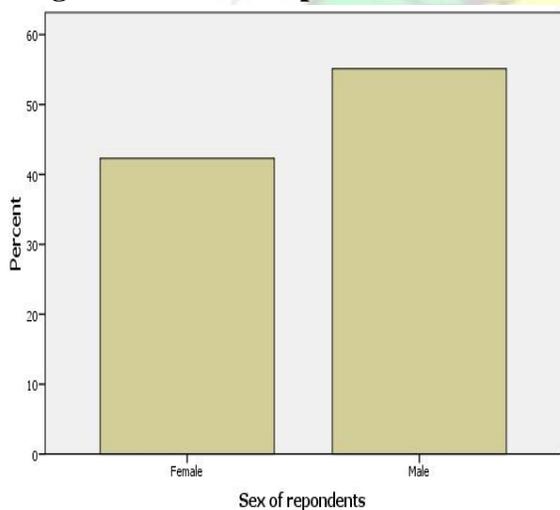
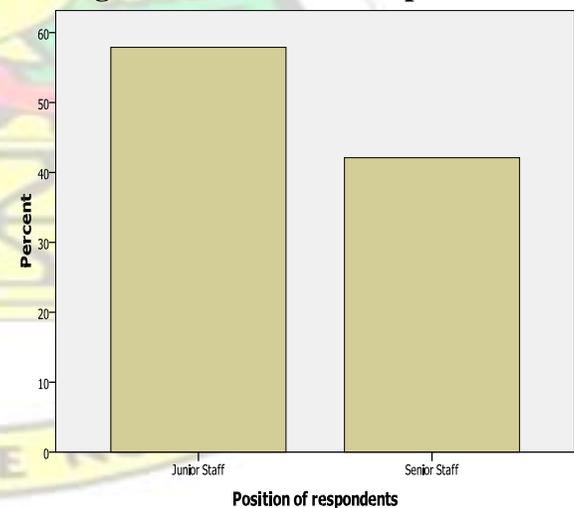


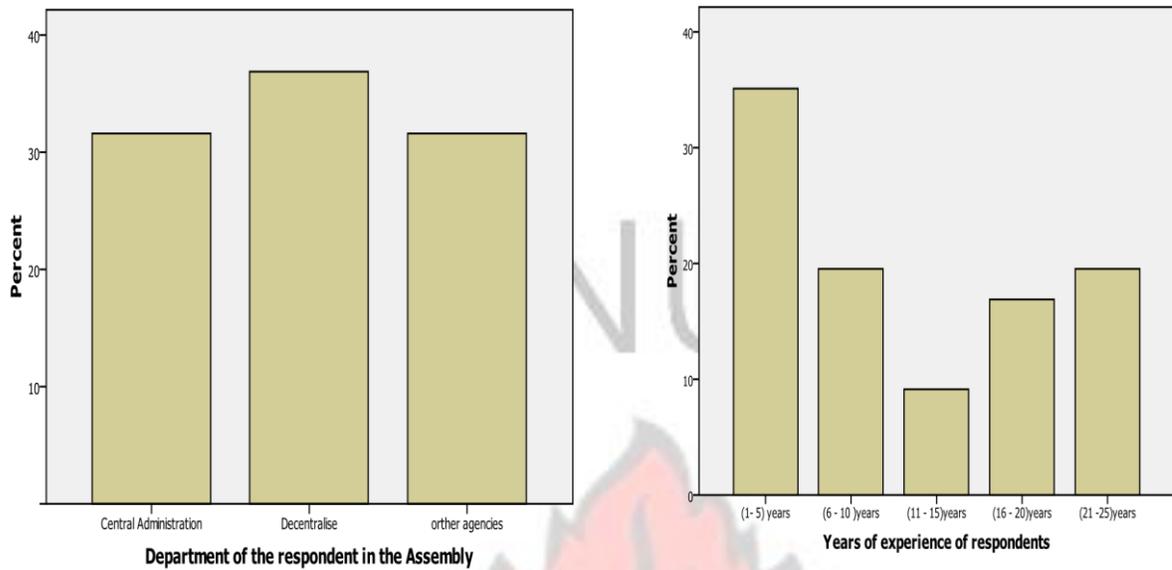
Figure 4.2 Position of respondents



Source: Field Data (2015)

Figure 4.3 Department of the respondent s in the Assembly

Figure 4.4 Years of experience of respondents



Source: Field Data (2015)

4.3 Examining the Work Environment of Obuasi Municipal Assembly

The social work environment of employees of Obuasi Municipal Assembly surfaced as the most conducive work environment at Obuasi Municipal Assembly with the highest mean of 3.6248 and an associated standard deviation of 0.49538. According to the respondents, administrative work environment and physical work environments were the next most conducive work environment at Obuasi Municipal Assembly with means of 3.2637 and 3.1620 respectively. Their corresponding standard deviations are 0.51998 and 0.47037 accordingly. Psychological work environment was the least conducive work environment in Obuasi Municipal Assembly with a mean of 2.7545 and a standard deviation of 0.59468. Table 4.2 presents the major work environments of Obuasi Municipal Assembly arranged in descending order with the most conducive environment appearing first and the least conducive appearing last. The subsections under this very section look at the key sub-work-environments that define the major work environments

of Obuasi Municipal Assembly that have been discussed in this section. These help to point to the Obuasi Municipal Assembly the direction of which sub-work-environments deserve greater attention in their attempt to manage the major work environments.

Table 4.2: Descriptive Statistics on the Major Work Environments of Obuasi

Municipal Assembly

Types of Environment	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Social Work Environment of Employees of Obuasi Municipal Assembly	78	2.30	4.60	3.6248	.49538	.245
Administrative Work Environment of Employees of Obuasi Municipal Assembly	78	1.75	4.33	3.2637	.51998	.270
Physical Work Environment of Employees of Obuasi Municipal Assembly	78	1.60	4.38	3.1620	.47037	.221
Psychological Work Environment of Employees of Obuasi Municipal Assembly	78	1.20	4.00	2.7545	.59468	.354
Valid N (listwise)	78					

Source: Field Data (2015)

4.3.1 Determinants of the Physical Work Environment of Obuasi Municipal Assembly

The respondents were of the opinion that the main sub-work-environment (elements of work environment) that helps the Assembly to create conducive physical work environment was when employees have offices and workspaces that are well designed.

This was justified with the highest mean of 3.5000 and an associated standard deviation of 1.31456. However they argued that coaching or on the job training was barely available to them to enhance their performance on the job.

4.3.2 Determinants of the Psychological Work Environment of Obuasi Municipal Assembly

The respondents were of the view that the psychological work environment in Obuasi Municipal Assembly was conducive because employees were not suppressed to focus on their tasks without constructively criticizing their employers or supervisors when need be. This was warranted by the highest mean of 3.3467 and an associated standard deviation of 1.13296. Nonetheless they held that their level of salary had very negligible impact on their psychological wellbeing with the mean of 2.2267 and a standard deviation of 1.12194

4.3.3 Determinants of the Social Work Environment of Obuasi Municipal Assembly

The respondents were of the opinion that the main sub-work-environment (elements of work environment) that helps the Assembly to create conducive social work environment was when co-workers of the employees have good relationship with them and they are friendly. This was justified with the highest mean of 4.3944 in the social work environment category and an associated standard deviation of 0.68617. However they asserted that they have very rigid chains of command which affect their social work environment negatively. This was proven with the least mean of 3.0141 and standard deviation of 1.07561.

4.3.4 Determinants of the Administrative Work Environment of Obuasi Municipal Assembly

The respondents were of the conviction that the administrative work environment in Obuasi Municipal Assembly was conducive because all people working in the Assembly had all the skills required to perform their responsibilities and that there was opportunity for

promotion. These were guaranteed by the highest mean of 3.8000 and 3.7143 respectively. Their associated standard deviations were .91049 and 1.09204 accordingly. Notwithstanding all these, they strongly disagreed that they had a hand in how much they were paid and that this make the administrative work environment unfriendly. . This was represented by the least mean of 1.9429 and a standard deviation of 0.94617

4.4 Assessing the Productivity of Worker of Obuasi Municipal Assembly

As a result of the good work environment in the Obuasi Municipal Assembly, the workers in the Assembly were very much committed to their employer. They were as well very much satisfied with their job with the Assembly. These cause the workers in the Assembly to be hardworking leading to high performance of the workers in the Assembly. Nonetheless, there is some evidence of absenteeism. This may be explained by the motivation level of the employees that was not high at the time of the study and the stressful nature of the work they do in the Assembly. Refer to table 4.3 below for the relevant mean values of the variables (elements of work environments in OMA) expressed in descending order of importance to OMA.

Table 4.3: Descriptive Statistics on Assessing the Productivity of Workers

Productivity Variables	N	Minimum	Maximum	Mean	Std. Deviation	Variance
The workers in the Assembly are very much committed to their employer	78	1.00	5.00	4.4872	5.39298	2.084
I am very much satisfied with my job here	76	1.00	5.00	3.7500	1.13284	1.283

The workers in the Assembly are very hardworking	75	1.00	5.00	3.6933	.85382	.729
The performance of workers in the Assembly is high	78	1.00	5.00	3.6538	.93735	.879
Workers are proud of what they do in the Assembly	77	1.00	5.00	3.5974	.78237	.612
What you do in the Municipal Assembly can help you to reach your full potential	77	1.00	5.00	3.5455	1.08270	1.172
Communication within the Assembly is good	75	1.00	5.00	3.3733	1.13630	1.291
Employees enjoy what they do in the Assembly	74	1.00	5.00	3.3378	.92569	.857
The health of the employees in the Assembly is good and their morale is high	78	1.00	5.00	3.2564	.97282	.946
The workers in the Assembly are always happy	78	1.00	5.00	3.2436	.94231	.888
Employees stay with Assembly for a long time before they leave	76	1.00	5.00	3.1974	1.05855	1.121
It is not stressful to work in the Assembly at all	76	1.00	5.00	2.9474	1.14187	1.304
The motivation level of employees in the Assembly is high	77	1.00	5.00	2.7143	1.03691	1.075
There are no absenteeism in the Municipal Assembly	77	1.00	5.00	2.4675	1.03345	1.068
Valid N (list wise)	66					

Source: Field Data (2015)

4.5 Effect of Work Environment on Employees Productivity

The analysis of variance (ANOVA) reports the significance of the work environment of Obuasi Municipal Assembly at .000^e. This denotes that work environment at Obuasi Municipal Assembly has significant impact on the productivity of its employees. (This

makes the model a very good model). At the end of the analysis we had a statistically significant model ($F(5, 42) = 10.549, p < 0.05$). This means that, work environment at Obuasi Municipal Assembly was statistically significant to the productivity of employees at Municipal Assembly. The Adjusted R Square value was 0.504. This tells us that work environment at Obuasi Municipal Assembly accounts for 50.4% of the variance in the productivity of their employees. This implies that the proportion of the variance in productivity of the employees can be explained by the variables that that make up work environment. The relationship between work environment and the productivity of the employees of Obuasi Municipal Assembly is very strong (strong positive). Please, read the table below for the details of the analysis.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
5	.746 ^e	.557	.504	.51274

e. Predictors: (Constant), My supervisors have good relationship with me and they are friendly, There is effective communication in the Obuasi Municipal Assembly , The layout of the offices and workspaces here are good, There is lack of ventilation here, My performance matches with my pay

Table 4.5: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	13.867	5	2.773	10.549	.000 ^e
	Residual	11.042	42	.263		
	Total	24.909	47			

e. Predictors: (Constant), My supervisors have good relationship with me and they are friendly, There is effective communication in the Obuasi Municipal Assembly , The layout of the offices and workspaces here are good, There is lack of ventilation here, My performance matches with my pay

f. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly

Source: Field Data (2015)

KNUST

4.5.1 Significant Variables of Work Environment and their Coefficient

The significant variables are shown below. All the beta coefficients of the predictor variables reported in the regression co-efficient tables were statistically significant. The Standardized Beta Coefficients gives a measure of the contribution of each variable to the productivity of the employees at OMA. The correlation coefficients were calculated individually and that the result of one has no effect on the other. A large value of standardized beta coefficient indicates that a unit change in a given variable has a large effect on the productivity of employees. The Significant (p) values associated with the beta give a rough indication of the impact of each variable – a small p value suggests that a variable is having a large impact on the productivity of the employees. The beta as well indicates the degree of relationship between the variables and the productivity of the employees. Thus, the negative beta figures indicate a negative relationship and the positive beta indicates positive relationship between the variables and the productivity of the employees. The beta coefficient can take on any value between -1 and +1. It can be observed from the coefficient tables below that some of the relationships of the betas of the variables have positive relationship with the productivity of the employees while others have negative relationship.

Table 4.6: Significant variables and their Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
5 (Constant)	2.066	.617		3.346	.002	.820	3.312
My supervisors have good relationship with me and they are friendly	.304	.126	.272	2.409	.020	.049	.558
There is effective communication in the Obuasi Municipal Assembly	.299	.076	.433	3.947	.000	.146	.453
The layout of the offices and workspaces here are good	-.257	.079	-.350	-3.248	.002	-.417	-.097
There is lack of ventilation here	-.162	.060	-.293	-2.696	.010	-.283	-.041
My performance matches with my pay	.159	.062	.275	2.559	.014	.034	.285

a. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly

Source: Field Data (2015)

4.5.2 Effect of Physical Work Environment on Employee Productivity at Obuasi Municipal Assembly

Physical Work Environment was statistically significant to the productivity of OMA employees that were studied, that is ($F(1,56) = 5.198, p < 0.05$). In this case, the Adjusted R Square value of 0.069 tells us that Physical Work Environment accounts for 6.9% of the variance in the productivity of OMA employees. The adjusted R square is an indication of the proportion of the variance in productivity of OMA employees that can be explained by

the variables that define Physical Work Environment. The analysis of variance (ANOVA) reports the significance of the Physical Work Environment at 0.026^a. This means that Physical Work Environment as a constituent of work environment of OMA has impact on the productivity of OMA employees. The relationship between Physical Work Environment and the productivity of OMA employees is not very strong (weak positive), though perhaps it could be improved by adding other instrumental variables. Refer to the tables below for the relevant regression result in respect of Physical Work Environment.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.291 ^a	.085	.069	.68885

a. Predictors: (Constant), Coaching or on the job training is available to us to enhance our performance on the job

Table 4.8: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.466	1	2.466	5.198	.026 ^a
	Residual	26.573	56	.475		
	Total	29.039	57			

a. Predictors: (Constant), Coaching or on the job training is available to us to enhance our performance on the job

b. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly Source: Field Data (2015)

Table 4.9: Coefficients Tables

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B
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		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.802	.271		10.332	.000	2.258	3.345
	Coaching or on the job training is available to us to enhance our performance on the job	.169	.074	.291	2.280	.026	.021	.318

Source: Field Data (2015)

4.5.3 Effect of Psychological Work Environment on Employee Productivity at Obuasi Municipal Assembly

Psychological Work Environment was statistically significant to the productivity of OMA employees that were studied, that is ($F(2,72) = 9.185, p < 0.05$). In this case, the Adjusted R Square value of 0.181 tells us that Psychological Work Environment accounts for 18.1% of the variance in the productivity of OMA employees. The adjusted R square is an indication of the proportion of the variance in productivity of OMA employees that can be explained by the variables that define Psychological Work Environment. The analysis of variance (ANOVA) reports the significance of the Psychological Work Environment at 0.000^b. This means that Psychological Work Environment as a component of work environment of OMA has impact on the productivity of OMA employees. The relationship between Psychological Work Environment and the productivity of OMA employees is not very strong (weak positive). Refer to the tables below for the relevant regression result in respect of Psychological Work Environment.

Table 4.10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.451 ^b	.203	.181	.62000

b. Predictors: (Constant), My performance matches with my pay, There is excessive noise here

Table 4.11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	7.062	2	3.531	9.185	.000 ^b
	Residual	27.677	72	.384		
	Total	34.739	74			

b. Predictors: (Constant), My performance matches with my pay, There is excessive noise here

c. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly

Table 4.12: Coefficients Tables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
		2	(Constant)	3.381			.215	
	My performance matches with my pay	.189	.057	.353	3.328	.001	.076	.303
	There is excessive noise here	-.208	.067	-.326	-3.079	.003	-.342	-.073

Source: Field Data (2015)

4.5.4 Effect of Social Work Environment on Employee Productivity at Obuasi Municipal Assembly

Social Work Environment was statistically significant to the productivity of OMA employees that were studied, that is ($F(3,67) = 12.202, p < 0.05$). In this case, the Adjusted

R Square value of 0.324 tells us that Social Work Environment accounts for 32.4% of the variance in the productivity of OMA employees. The adjusted R square is an indication of the proportion of the variance in productivity of OMA employees that can be explained by the variables that define Social Work Environment. The analysis of variance (ANOVA) reports the significance of the Social Work Environment at 0.000^c. This means that Social Work Environment as a subset of work environment of OMA has impact on the productivity of OMA employees. The relationship between Social Work Environment and the productivity of OMA employees is strong (strong positive). Refer to the tables below for the relevant regression result in respect of Social Work Environment.

Table 4.13: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	.594 ^c	.353	.324	.57662

c. Predictors: (Constant), There is effective communication in the Obuasi Municipal Assembly , My supervisors have good relationship with me and they are friendly, I have the autonomy to perform my duties

Table 4.14: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	12.171	3	4.057	12.202	.000 ^c
	Residual	22.277	67	.332		
	Total	34.448	70			

c. Predictors: (Constant), There is effective communication in the Obuasi Municipal Assembly , My supervisors have good relationship with me and they are friendly, I have the autonomy to perform my duties

d. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly

Table 4.15: Coefficients Table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
3 (Constant)	.657	.488		1.347	.183	-.317	1.631
There is effective communication in the Obuasi Municipal Assembly	.179	.076	.254	2.337	.022	.026	.331
My supervisors have good relationship with me and they are friendly	.358	.108	.339	3.332	.001	.144	.573
I have the autonomy to perform my duties	.165	.069	.254	2.406	.019	.028	.302

Source: Field Data (2015)

4.5.5 Effect of Administrative Work Environment on Employee Productivity at Obuasi Municipal Assembly

Administrative Work Environment was statistically significant to the productivity of OMA employees that were studied, that is ($F(2,67) = 13.240, p < 0.05$). In this case, the Adjusted R Square value of 0.262 tells us that Administrative Work Environment accounts for 26.2% of the variance in the productivity of OMA employees. The adjusted R square is an indication of the proportion of the variance in productivity of OMA employees that can be explained by the variables that define Administrative Work Environment. The analysis of variance (ANOVA) reports the significance of the Administrative Work Environment at 0.000^b. This means that Administrative Work Environment as a subset of work environment of OMA has impact on the productivity of

OMA employees. The relationship between Administrative Work Environment and the productivity of OMA employees is strong (strong positive). Refer to the tables below for the relevant regression result in respect of Administrative Work Environment.

Table 4.16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.532 ^b	.283	.262	.57846

b. Predictors: (Constant), There are career development opportunities in the Municipal Assembly, I like the employee performance appraisal system here

Table 4.17: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	8.861	2	4.430	13.240	.000 ^b
	Residual	22.419	67	.335		
	Total	31.280	69			

b. Predictors: (Constant), There are career development opportunities in the Municipal Assembly, I like the employee performance appraisal system here

c. Dependent Variable: Employees Productivity of Obuasi Municipal Assembly

Table 4.18: Coefficients Tables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
2	(Constant)	1.652	.346		4.775	.000	.961	2.342
	There are career development opportunities in the Municipal Assembly	.268	.076	.368	3.501	.001	.115	.420
	I like the employee performance appraisal system here	.244	.079	.323	3.069	.003	.085	.403

Source: Field Data (2015)

4.6 Effect of the Work Environment on the Productivity of Male Employees of Obuasi Municipal Assembly

Work environment was statistically significant to the productivity of male employees of OMA who were studied, that is ($F(3,44) = 5.226, p < 0.05$). In this case, the Adjusted R Square value of 0.212 tells us that Work Environment accounts for 21.2% of the variance in the productivity of male employees of OMA. The analysis of variance (ANOVA) reports the significance of the Work Environment in respect of the productivity of male employees at 0.004^c. This means that Work Environment has significant impact on the productivity of male employees of OMA. The relationship between Work Environment and the productivity of male employees of OMA is strong (strong positive). Refer to the tables below for the relevant regression result in respect of Work Environment in respect of the productivity of male employees.

Table 4.19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	.513 ^c	.263	.212	.43418

- c. Predictors: (Constant), Employees are involved in goal setting, There is excessive noise here, I like the employee performance appraisal system here
 d. Dependent Variable: Productivity of Male Respondents Only

Table 4.20: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	2.955	3	.985	5.226	.004 ^c
	Residual	8.295	44	.189		
	Total	11.250	47			

- c. Predictors: (Constant), Employees are involved in goal setting, There is excessive noise here, I like the employee performance appraisal system here

d. Dependent Variable: Productivity of Male Respondents Only Source: Field Data (2015)

4.7 Effect of the Work Environment on Productivity of Female Employees of Obuasi Municipal Assembly

Work Environment was statistically significant to the productivity of female employees of OMA who were studied, that is ($F(1,46) = 5.204, p < 0.05$). In this case, the Adjusted R Square value of 0.082 tells us that Work Environment accounts for 21.2% of the variance in the productivity of female employees of OMA. The analysis of variance (ANOVA) reports the significance of the Work Environment in respect of the productivity of female employees at 0.027^a. This means that Work Environment has significant impact on the productivity of female employees of OMA. The relationship between Work Environment and the productivity of female employees of OMA is not very strong (weak positive). Refer to the tables below for the relevant regression result in respect of Work Environment in respect of the productivity of female employees.

Table 4.21: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319 ^a	0.102	0.082	0.46306

a. Predictors: (Constant), Employees are involved in goal setting

Table 4.22: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.116	1	1.116	5.204	.027 ^a
	Residual	9.863	46	0.214		
	Total	10.979	47			

a. Predictors: (Constant), Employees are involved in goal setting

b. Dependent Variable: Productivity of Female Respondents Only Source:
Field Data (2015)

4.8 Effect of the Work Environment on Productivity of Senior Staff of Obuasi Municipal Assembly

Work Environment was statistically significant to the productivity of senior staff of OMA who were studied, that is ($F(2,44) = 7.514, p < 0.05$). In this case, the Adjusted R Square value of 0.221 tells us that Work Environment accounts for 22.1% of the variance in the productivity of senior staff of OMA. The analysis of variance (ANOVA) reports the significance of the Work Environment in respect of the productivity of senior staff at 0.002^b. This means that Work Environment has significant impact on the productivity of senior staff of OMA. The relationship between Work Environment and the productivity of senior staff of OMA is strong (strong positive). Refer to the tables below for the relevant regression result in respect of Work Environment in respect of the productivity of senior staff.

Table 4.23: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.505 ^b	.255	.221	.43790

b. Predictors: (Constant), Over here employees are involved in decision making, What I do here is in line with what I was employed to do (role congruity)

Table 4.24: ANOVA

2	Regression	2.882	2	1.441	7.514	.002 ^b
	Residual	8.437	44	0.192		
	Total	11.319	46			

b. Predictors: (Constant), Over here employees are involved in decision making, What I do here is in line with what I was employed to do (role congruity)

c. Dependent Variable: Respondents Who are Senior Staff

Source: Field Data (2015)

4.9 Effect of the Work Environment on Productivity of Junior Staff of Obuasi

Municipal Assembly

Work Environment was statistically significant to the productivity of junior staff of OMA who were studied, that is ($F(5,22) = 10.928, p < 0.05$). In this case, the Adjusted R Square value of 0.648 tells us that Work Environment accounts for 64.8% of the variance in the productivity of junior staff of OMA. The analysis of variance (ANOVA) reports the significance of the Work Environment in respect of the productivity of junior staff at 0.000^e. This means that Work Environment has significant impact on the productivity of junior staff of OMA. The relationship between Work Environment and the productivity of junior staff of OMA is very strong (strong positive). Refer to the tables below for the relevant regression result in respect of Work Environment in respect of the productivity of junior staff.

Table 4.25: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
5	.844 ^e	.713	.648	.54237

e. Predictors: (Constant), My performance matches with my pay, There are not enough light here, There is effective communication in the Obuasi Municipal Assembly , The Level of salary here is good, My work is such that I am able to balance work and family

Table 4.26: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	16.074	5	3.215	10.928	.000 ^e
	Residual	6.472	22	.294		
	Total	22.545	27			

e. Predictors: (Constant), My performance matches with my pay, There are not enough light here, There is effective communication in the Obuasi Municipal Assembly , The Level of salary here is good, My work is such that I am able to balance work and family f.
Dependent Variable: Productivity of Junior Staff Obuasi Municipal Assembly

Source: Field Data (2015)

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter involves a presentation of the summary of findings from the analysis done so far. Recommendations based on the findings have been provided to improve the work environment of Obuasi Municipal Assembly. The study is concluded and a statement of the way forward is made.

5.2 Summary of Findings

5.2.1 The Work Environment of Obuasi Municipal Assembly

The social work environment of employees of Obuasi Municipal Assembly surfaced as the most conducive work environment at Obuasi Municipal Assembly with the highest mean of 3.6248 and an associated standard deviation of 0.49538.

Psychological work environment was the least conducive work environment in Obuasi Municipal Assembly with a mean of 2.7545 and a standard deviation of 0.59468.

The main sub-work-environment that helps the assembly to create conducive physical work environment was when employees have offices and workspaces that are well designed.

Level of salary had very negligible impact on their psychological wellbeing with the mean of 2.2267 and a standard deviation of 1.12194.

To create conducive social work environment, co-workers of the employees must display good relationship and must be friendly.

Rigid chains of command affect social work environment negatively.

Employees do not have a hand in how much they were paid and that this makes the administrative work environment unfriendly.

5.2.2 The Productivity of Workers at Obuasi Municipal Assembly

As a result of the good work environment in the Obuasi Municipal Assembly the workers in the Assembly were very much committed to their employer, satisfied with their job thereby causing them to be hardworking leading to high performance of the workers in the Assembly.

There was evidence of absenteeism brought about by the fact that motivational level of the employees was not high and the nature of their work was stressful.

5.2.3 Effect of Work Environment on Employees Productivity

Work environment at Obuasi Municipal Assembly was statistically significant to the productivity of employees at Municipal Assembly at 0.000^c. The relationship between work environment and the productivity of the employees of Obuasi Municipal Assembly is very strong (strong positive).

Physical Work Environment was statistically significant to the productivity of OMA employees at 0.026^a. This means that Physical Work Environment as a constituent of work environment of OMA has impact on the productivity of OMA employees. The relationship between Physical Work Environment and the productivity of OMA employees is not very strong (weak positive)

Psychological Work Environment was statistically significant to the productivity of OMA employees at 0.000^b. This means that Psychological Work Environment as a component of work environment of OMA has impact on the productivity of OMA employees. The relationship between Psychological Work Environment and the productivity of OMA employees is not very strong (weak positive).

Social Work Environment was statistically significant to the productivity of OMA employees at 0.000^c. This means that Social Work Environment as a subset of work environment of OMA has impact on the productivity of OMA employees. The relationship between Social Work Environment and the productivity of OMA employees is strong (strong positive)

Administrative Work Environment was statistically significant to the productivity of OMA employees at 0.000^b. This means that Administrative Work Environment as a subset of work environment of OMA has impact on the productivity of OMA employees. The relationship between Administrative Work Environment and the productivity of OMA employees is strong (strong positive).

Work environment was statistically significant to the productivity of male employees of OMA at 0.004^b. This means that Work Environment has significant impact on the productivity of male employees of OMA. The relationship between Work Environment and the productivity of male employees of OMA is strong (strong positive)

Work Environment was statistically significant to the productivity of female employees of OMA at 0.027^a. This means that Work Environment has significant impact on the productivity of female employees of OMA. The relationship between Work Environment and the productivity of female employees of OMA is strong (strong positive).

Work Environment was statistically significant to the productivity of senior staff of OMA at 0.002^b. This means that Work Environment has significant impact on the productivity of senior staff of OMA. The relationship between Work Environment and the productivity of senior staff of OMA is strong (strong positive).

Work Environment was statistically significant to the productivity of junior staff of OMA at 0.000^e. This means that Work Environment has significant impact on the productivity of junior staff of Obuasi Municipal Assembly. The relationship between Work Environment and the productivity of junior staff of OMA is strong (strong positive).

5.3 Conclusion

The study set out to assess the effects of work environment on employee's productivity in government organizations in Ghana. In an attempt to do this, 100 questionnaires were administered to the employees of Obuasi Municipal Assembly. A response rate of 78%

was achieved. The data collected was analyzed using multiple regression and descriptive statistics. It was found that, each of the components that define work environment were statistically significant to productivity of the Municipal Assembly. However, the social work environment of employees of Obuasi Municipal Assembly was the most conducive work environment at Obuasi Municipal Assembly and the psychological environment of the Assembly was least conducive. In the end, work environment at Obuasi Municipal Assembly was statistically significant to the productivity of employees at the Municipal Assembly.

5.4 Recommendations

5.4.1 The Work Environment of Obuasi Municipal Assembly

Since the social environment of the Municipal Assembly was noted to be conducive, the Assembly must keep an eagle eye on it so that the working life of the employees could be better to enhance productivity.

The psychological environment of the assembly was less conducive so the management of the Assembly must improve the sub-environment that define psychological environment to improve the situation. To further solve this problem the level of salary must be improved to impact positively on their psychological wellbeing since their level of salary was one of the reasons for poor psychological environment.

Again, employees must be made to have a hand in how much they are paid to help boost their administrative environment.

5.4.2 The Productivity of Workers at Obuasi Municipal Assembly

In view of the fact that there was evidence of absenteeism in the Assembly brought about by low motivational level of the employees and the stressful nature of their work, the Obuasi Municipal Assembly is advised to introduce reward systems to enable the employees feel that they are being valued by the organization they work for. The reward system would encourage the staff to be punctual at work and work harder because their well-being is seriously taken care of by the management of the Assembly.

Also the Assembly is advised to take care of their employees career and self-development so as to retain efficient and experience workforce in the organization.

5.4.3 Effect of Work Environment on Employees Productivity

In view of the fact that work Environment was statistically significant to the productivity of male employees, female employees, senior staff and junior staff of Obuasi Municipal Assembly, the work environment must be maintained or improved to ensure productivity. In addition, all the components that define work environment were statistically significant to productivity of the Municipal Assembly. For this reason the Assembly is advised to invest in them.

Similarly, the work environment of the Municipal Assembly has positive impact on the productivity of its workers so the current must be maintained for the employees to be continued to be productive for the Obuasi Municipal Assembly.

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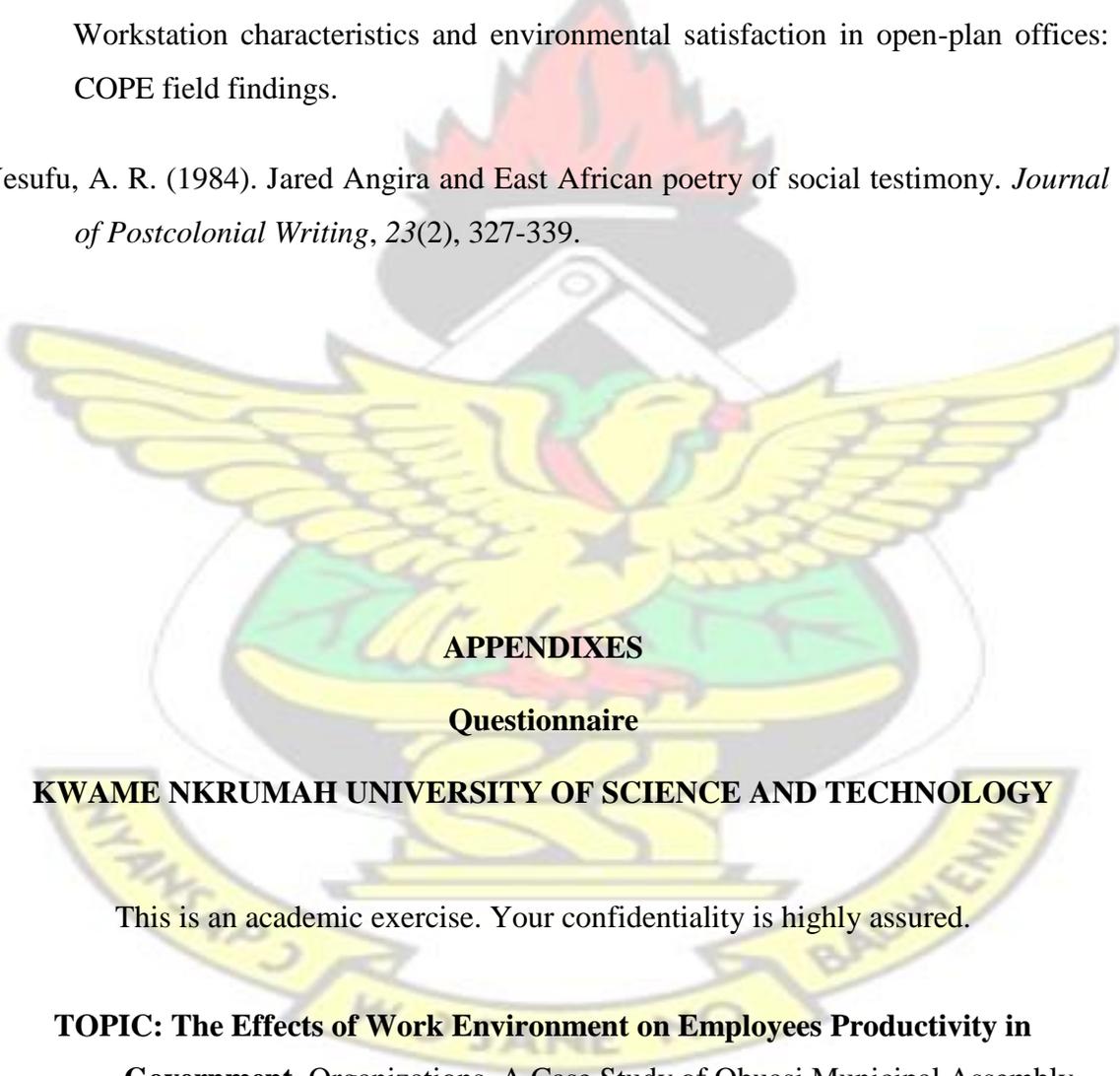
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APPENDIXES

Questionnaire

KWAME NKURUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

This is an academic exercise. Your confidentiality is highly assured.

TOPIC: The Effects of Work Environment on Employees Productivity in Government Organizations. A Case Study of Obuasi Municipal Assembly

SECTION A: Background of Respondents

a. Position of respondents.....

b. Department.....Years of experience.....

INSTRUCTIONS

Please, indicate the extent to which you agree/disagree by ticking the appropriate boxes below.

5 =Strongly Agree; 4= Agree; 3= Neutral; 2= Disagree; 1= Strongly Disagree

SEGMENT B

To what extent do you agree or disagree to the following statements?

PROXIES FOR WORK ENVIRONMENT AT OBUASI MUNICIPAL ASSEMBLY						
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
	Physical Work Environment	5	4	3	2	1
1	Our offices and workspaces are well designed					
2	We have the requisite equipment to perform our duties					
3	The level of cleanliness here is good					
4	The layout of the offices and workspaces here are good					
5	The furniture here is unsuitable and not comfortable					
6	There is lack of ventilation here					
7	There are not enough light here					
8	There are insufficient safety measures in case of fire emergencies					
9	There is lack of personal protective equipment for work					
10	The temperature at my workplace is too high and there are no air conditions					
11	The working hours here is too long					
12	My workload is too much					
13	What I do here is in line with what I was employed to do (role congruity)					
14	There is always overcrowding at my workplace					
15	I get the support of my supervisors all the time					

16	Coaching or on the job training is available to us to enhance our performance on the job						
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	
		5	4	3	2	1	
17	The Level of salary here is good						
18	My performance matches with my pay						
19	I feel comfortable, safe and healthy here						
20	There is excessive noise here						
21	We are expected to focus on tasks without criticizing our employers or supervisors						

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	
		5	4	3	2	1	
	Social Work Environment						
22	My co-workers have good relationship with me and they are friendly						
23	My supervisors have good relationship with me and they are friendly						
24	There is effective communication in the Obuasi Municipal Assembly						
25	Over here employees are involved in decision making						
26	My work is such that I am able to balance work and family						
27	We have very rigid chains of command						
28	I have the autonomy to perform my duties						
29	We have very good team culture in the Assembly						
30	I always get feedback on my performance						
31	We are free to apply new skills and ideas that we have						
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	
		5	4	3	2	1	
	Administrative Work Environment						
32	There is opportunity for promotion						
33	I like the employee performance appraisal system here						
34	All people working here including myself have all the skills required to perform our responsibilities						
35	We are given enough authority to perform our duties						

36	I am comfortable with the recruitment agreement my employers have with me					
37	There are career development opportunities in the Municipal Assembly					
38	Employees are involved in goal setting					
39	Work processes are documented and rigid such that you can't vary them when there is the need to do so					
40	We have a hand in how much is paid to us as incentives					

SEGMENT C

To what extent do you agree or disagree to the following statements

	Employees Productivity (Dependent variable)	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
	Indicators of Employees Productivity	5	4	3	2	1
1	The performance of workers in the Assembly is high					
2	The workers in the Assembly are very much committed to their employer					
3	The workers in the Assembly are always happy					
4	The workers in the Assembly are very hardworking					
5	The health of the employees in the Assembly is good and their morale is high					
6	Employees enjoy what they do in the Assembly					
7	The motivation level of employees in the Assembly is high					
8	Workers are proud of what they do in the Assembly					
9	What you do in the Municipal Assembly can help you to reach your full potential					
10	There are no absenteeism in the Municipal Assembly					
11	Employees stay with Assembly for a long time before they leave					
12	It is not stressful to work in the Assembly at all					
13	Communication within the Assembly is good					
14	I am very much satisfied with my job here					