

Effects of Working Facilities Stress Factors on the Performance of Employees in Public Universities in Kenya

John Ng'ang'a Karihe¹, Professor G. S. Namusonge², Dr. Mike Iravo³

¹Doctor of philosophy in Human Resources Management of Jomo Kenyatta University of Agriculture and Technology

²Supervisor, Jomo Kenyatta University of Agriculture and Technology

³Supervisor, Jomo Kenyatta University of Agriculture and Technology

Abstract- The aim of this study was to assess the effects of occupational stress and how it affects employee performance in the public universities in Kenya. Specifically the study seeks to determine the effect of working facilities stress factors on the performance of employees in public universities in Kenya. The study employed a cross-sectional evaluation survey approach. This used both qualitative and quantitative methods in the selection of the participants and collection of data. Cluster sampling was employed to select 384 respondents. Data collection instruments included interviews, questionnaires and document reviews. The collected data was captured in MS Excel and analyzed using SPSS version 24 (Statistical Package for Social Scientists). Linear regression analysis and Pearson's correlation coefficient were run to determine relationship between stress factors and workers performance. The analyzed data was presented in suitable graphs, charts and tables. By correlating the determinants of stress with performance, the study found out that the determinants of stress include movement, motivation, workers relationships, management and working facilities. The study found a significant relationship ($F(3,342) = 57.717, p < 0.05$) between Workplace facilities and employee performance. The nature of the relationship was found to be positive in the sense that unit increase in Worker's relationship, Worker's movement, Workplace facilities and Management leads to an increase in Employee performance as demonstrated by the equation: Employee performance = $2.286 + .115 \text{Workplace facilities} + .096 \text{Management}$

Index Terms- working facilities, stress factors, employee performance

I. INTRODUCTION

Recent trends have also made it increasingly difficult for employees to adequately balance the responsibility of their families, as employee are working longer hours and bringing more work home at night. This has resulted to more pressure being placed on the work-family relationship such that coordination of work, vocation schedules and child care options have become very unsuccessful (Dar et al. 2011). More and more voices warn about the possible risks that could emerge if the human resource management ignores the current signs of increase in levels of stress among employees (Robbins & Judge, 2007). Organisations therefore need to respond to stress

experienced by employees in order to enhance their legitimacy and obtain the resources necessary for their survival.

Stress in University workers is an on-going issue of concern for those involved in education. Numerous studies found that job stress influences the employees' job satisfaction and their overall performance in their work, because most of the organizations now are more demanding for the better job outcomes (McGrath et al., 2003). Academic staff has a major role to play in achieving the objectives of the institution (Kumar, 2013). The performance of the staff; teaching, non-teaching teachers and also as managers, determines to a large extent, the quality of the student experience in the Universities and has a significant impact on student learning and thereby on the contribution that such institutions can make to the society (Kumar, 2013). Stress of University workers therefore needs to be addressed.

Mojoyinola (2008) contend that coping can function to change the situation out of which stressful experiences originate (Problem-focused), change the meaning of such experiences before the emergence of stress (perception-focused), and control the emotional reaction to stress after it has emerged (emotion-focused). If one is suffering from stress, the aspect of life that causes it has to be identified. These aspects will then help in developing strategies to deal with stress. According to Dar, Akmal, Naseem and Khan (2011) steps such as changes in lifestyle or other small strategies can help to deal with stress. The work can be delegated or shared and avoid confrontation with problematic colleagues. Learning to be assertive, taking regular exercise, avoiding alcohol and drugs can reduce stress. On the other hand, eating a healthy, balanced diet rich in fruits and vegetables, finding humour in stressful situations, time management, talking to friends or family and sharing thoughts and fears can fight stress.

Workers in the Universities have often found themselves in dissatisfactions that have manifested them greatly in the recent past. In November 2011, a major strike was held nationwide in Kenya by all the public universities workers. This led to the closure of several universities. This strike among other things affected learning, examinations and graduation programmes. Concurrently there was a go slow in Brazil in October and November by dissatisfied university lecturers. It is with this background that the researcher seeks to carry out a study in selected universities in Kenya to establish the effects of occupational stress on employees' performance and provide

practical coping strategies that can be employed to reduce or completely alleviate stress in public universities.

According to Waswa and Swaleh (2012) minimal attention has been given towards ensuring workers in public universities have been provided with the necessary resources, motivation, effective job allocation measures and management to avert continuous strikes that have lowered the standards of education in the country. Additionally Owino et al (2013) argues that lack of resources, motivation, poor leadership and negative relationships leads to stressed employees and poor performance. Zhimin and Ramani (2012) advises that stress factors should be met to enhance conflict resolution within Kenya's public universities. This study therefore seeks to assess the determinants of occupational stress in public universities and their contribution to the performance of workers.

The information from this study may form part of policy making for both the government and the management of public universities. The information on the stress factors affecting the performance of workers in public universities may be used by the management of the public universities in developing strategies and providing an environment that will ensure improved productivity of the workers.

Through this study on the stress factors affecting the performance of workers in public universities, the general public and the management of the universities as well as the workers themselves will be able to understand and appreciate the performance of workers that are exposed to such stressors.

Academicians and researchers who are willing to provide more education and solution to workers stress may use the information from this study to inform their understanding and arguments. Additionally, the information from the study may also form basis for literature for other researchers and academicians who are willing to carry out studies in the same field in sub-Saharan Africa.

The study was carried out within Nairobi County metropolitan. The study therefore focused on public universities that operate within or closer to Nairobi County. Nairobi Metropolitan consists of four regions which cover approximately 32000 square kilometres the four regions are: Core Metro that includes the City of Nairobi; Northern Metro includes the municipal councils of Kiambu, Limuru, Ruiru, Thika, and Karuri, the Town councils of Kikuyu and the County Council of Kiambu; Southern Metro that includes the Town Council of Kajiado and the County Council of Olkejuado; and Eastern Metro that includes the Town Council of Kangundo/ Tala, the Municipal Councils of Machakos and Mavoko and the County of Masaku.

Public universities were selected because their workers have unions or organisations that advocate for a stress free environment for them. The unions (Kenya Universities Staff Union (KUSU) and the Universities Academic Staff Union (UASU)) are responsible for ensuring that there are favourable working conditions for all public university workers. Involving the public universities therefore provided in-depth information on workers stress on performance since they are aware of their stressors at work and are taking steps to address them by forming unions to champion for their rights. Nairobi Metropolitan was chosen as the area of study because all the major public

universities in Kenya are either based or have campuses within Nairobi Metropolitan.

II. LITERATURE REVIEW

2.1.1 Relational theory

In his theory, Lazarus regards stress as a relational concept, that is, stress is not defined as a specific kind of external stimulation or a specific pattern of physiological, behavioural, or a subjective reactions. Instead, stress is reviewed as a relationship between individuals and their environment. Psychological stress involves relationship with the environment that an individual appraises as significant for his or her well-being and in which the demands tax or exceed available coping resources. These definitions points to two processes as central mediators within the person-environment transaction: cognitive appraisal and coping.

This concept is based on the idea that emotional processes (including stress) are dependent on actual expectancies that persons manifest with regard to the significance and outcome of a specific encounter. This concept is necessary to explain individual differences in quality, intensity, and duration of an elicited emotion in environments that are objectively equal for different individuals. The most important factors on the personal side are motivational dispositions, goals, values and generalized expectancies. Relevant situational parameters are predictability, controllability, and imminence of a potentially stressful event.

2.1.2 Homeostasis theory

According to Mojinyinola (2008), the body possesses internal mechanism to maintain a stable bodily functioning or equilibrium. As the environment presents the organism with various challenges, the body must respond to each new situation and by adjusting various physiological systems to compensate for the resources being taxed. A classic example of this type of compensation involves fluid regulation. When an organism ingests a large amount of water, the kidney releases more waste fluid into the bladder for eventual disposal in an effort to maintain bodily equilibrium. Many of the feedback mechanisms that regulate blood pressure presented in the body share similar characteristics with bodily systems that maintain homeostasis. According to Mojinyinola (2008), failure of the body to respond to environmental challenges by maintaining bodily homeostasis results in damage to target organs and eventually death. The concept of homeostasis introduced therefore proves to be very valuable in explaining how acute physiological stress responses to threats of survival would lead toward chronic stress responses.

2.1.3 Welford's performance and demand theory

Welford's performance and demand theory (1973) shares much in common with the theory proposed by Selye (1956). In this theory, stress arises whenever there is a departure from optimum conditions of demand which the person is unable to correct. Organisms including man appear to have evolved so that they function best under conditions of moderate demand. An individual's performance is less than maximum efficiency if they experience either too high or too low level of demand. Margetts (1975) offers a similar approach in terms of stimulus input. Living organisms adjust themselves to maintain a reasonable input of stimuli. If the input of stimuli is excessive or insufficient for the individual organism, the excess or insufficiency can be

considered stressful. The organism's homeostasis is threatened by stress, and if it cannot manage it, it goes into a state of disequilibrium or breakdown. This may be temporary, pending readjustment, or may proceed to a more profound disorder, leading to functional or structural pathology. This theory is credited for using the inverted U when explaining the relationship between demand and performance, which has some biological validity (Nakata et al., 2008). Bloona (2007) argues that just like the response based theory, the Welford performance and demand theory leaves out individual characteristics which explain why people perform differently under the same stressor. Cox and Mackay (1976) proposed a more complex theory, which grew out of the need to systematically understand the transaction between the individual and his environment. The primary focus of this theory is on individual perceptual phenomena rooted in psychological process. They explain the role of cognitive appraisal of potentially stressful situation in determining how one will react. If a situation demands too much of a person but he has not realized his limitation, he will work on without being stressed until it becomes obvious to him that he cannot cope, he then experiences stress. McGrath (1976) further observes that stress arises when there is an imbalance between perceived demand and the perception of his capability to meet the demand. The presence of this perceptual factor allows for operations of a wide variety of organismic variables such as personality which contributes to the existence of individual characteristics. This theory is credited for introducing the individual variation aspect. Since it considers the status of the individual in relation to his environment and also brings in the individual characteristics which are often forgotten in laboratory studies. Critics of this theory argue that it does not account for situations that place psychological demands without the immediate involvement of other more physiological processes (Cox 1980).

2.1.4 Hertzberg's two factor theory

Hertzberg's two factor theory has been used to explain occupational stress. He carried out his now famous survey in 200 accountants and engineers from which he derived his initial framework for his theory (Steers & Porter, 1987). The theory argues that job satisfaction depends on the motivator factors which include variables such as achievement, recognition, the work itself, responsibility advancement and growth. Conversely dissatisfying experiences called hygiene factors resulted largely from extrinsic, no job related factors such as company policies,

salary and supervisory style. Cox (1980) in his studies on stress posits that lack of job satisfaction results to stress and improving the hygiene factors by redesigning and enriching jobs will promote satisfaction. This will in return reduce stress and improve performance. Hertzberg's work is credited for its stimulating thought of introducing motivation at the workplace and therefore giving people a better understanding of job related stress. Critics of this theory argue that it does not give sufficient attention to individual characteristics which are very important in understanding human behaviour (Bloona 2007).

2.1.5 Stress Theory Model

A model is a systematic organization of knowledge on some topic. There are several models developed to provide an insight on stressors and their coping strategies. This study will however major on only two models to explain stressors and one model focusing on stressors and their coping strategies.

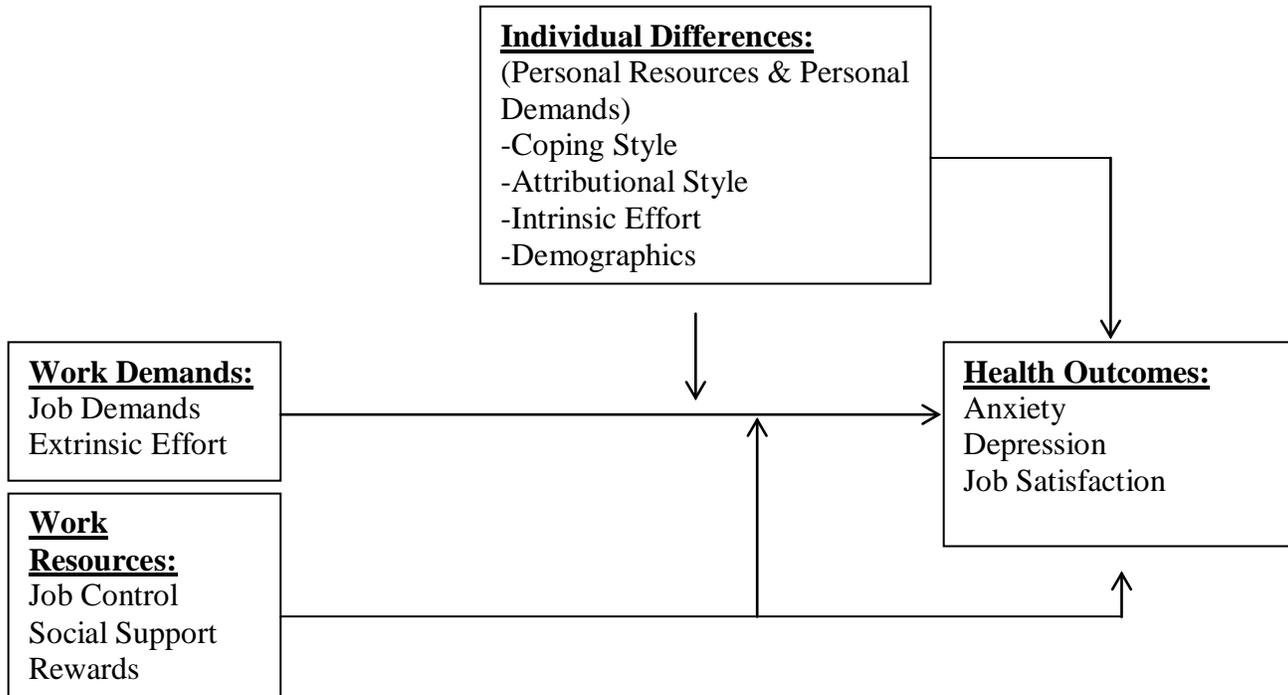
a) Demands, Resources, and Individual Effects model

In light with the literature on stress models, Mark and Smith (2008) suggested the DRIVE model that perhaps elucidates stressors effectively. In this model they acknowledge the important role played by psychosocial workplace stressors in the stress process, and tries to account for the role of important individual difference factors in the development of subjective experiences of stress, and in influencing the possible health-related outcomes that result from subjective stressful perceptions. This framework aims to represent key aspects of the stress process, without getting bogged down in the minutiae of more complex theories and mental processes.

They developed and tested the model shown below which simultaneously compared a number of job characteristics and individual difference variables in the prediction of anxiety, depression, and job satisfaction, in a working population. Independent variables included: job demands, social support, decision authority, and skill discretion; extrinsic effort, intrinsic effort and rewards; 40 coping behaviours which included the categories of problem focused coping, seeking advice, self blame, wishful thinking, and escape/avoidance; attributional/explanatory styles; and age, gender, and demographic variables. This framework was called the Demands, Resources, and Individual Effects model (DRIVE).

Source: Mark and Smith (2008)

Figure 2.1 The DRIVE model



In the model, workplace and individual characteristics are conceived of in terms of work demands and resources, and individual demands and resources. Other work demands and resources could include workload, bullying, job security, management style, feedback etc, and other personal demands and resources could include self efficacy, locus of control, personality, home environment, experience, work/life balance, role conflict, etc.

The model proposes that work demands, individual differences, and work resources are all proposed to have main effect relationships on anxiety, depression, and job satisfaction (other outcomes could include organizational commitment, musculoskeletal disorders, gastro-intestinal disorders, heart disease, absence). It is also proposed that work resources and individual differences may moderate the relationship between work demands and health outcomes. The individual difference variables of positive coping (problem focused coping) and attributional styles can be seen as personal resources, and intrinsic effort, negative coping (self-blame) and attributions as “personal demands”, as maladaptive behaviours are effectively self-induced demands. This model makes no predictions about the “importance” of the different variables in predicting outcomes, and gives each type of variable (work and individual demands and resources) a theoretical equivalency.

b) The cognitive theory of psychological Stress and coping

Lazarus and Folkman’s theory of psychological stress and coping (1980) is perhaps the most theoretically influential transactional theory. Sometimes known as the Cognitive-Relational approach, the individual and their environment are seen as coexisting in a dynamic relationship, where stress is the psychological and emotional state that is internally represented

aspart of a stressful transaction (Folkman, Lazarus, Gruen&DeLongis, 1986).

The two key concepts in this process are appraisal and coping (Cox et al., 2000).Folkman et al (1986) describe primary appraisal as the first stage of the appraisal process, where encounters are subjectively evaluated to see what is at stake in terms of potential risk (Perrewe&Zellars, 1999) and these assessments allow for the influence of individual differences, because the nature of what is considered stressful is individual-specific (Park &Folkman, 1997).

In later work, Park and Folkman (1997) write that the attribution of meaning that individuals give to events, can be framed by existing beliefs based on their global meaning. These are enduring beliefs and valued goals, based on fundamental assumptions, theories of reality (e.g. religion), self-worth, life experience etc. Park and Folkman (1997) propose that the making of situational meaning is what occurs when an individual’s global beliefs and goals interact with the specifics of a particular person-environment transaction which are defined by the processes of appraisal and coping.

If a situation is evaluated as potentially stressful, then secondary appraisal occurs, which is where the individual evaluates if the potential harm can be altered, avoided or prevented (Park &Folkman, 1997), where to assign blame or credit, and what future expectations are. Potential actions or ways of coping are assessed, informed by past coping experience, personality, personal resources (and presumably global meaning). Folkman and Lazarus (1980) described many types of coping behaviours, and suggested that they could be aggregated into two major categories of coping response: problem-focused coping (attempts to cope using more rational problem solving type approaches) or emotion-focused coping

(emotional-oriented coping approaches) each of which are suitable in different kinds of situation.

While the problem focused/emotion focused distinction has been popular in research, many argue that it is important to split coping into more distinct categories (many based on Folkman and Lazarus' work) such as problem focused coping, seeking social support, blamed self, wishful thinking, and avoidance (Vitaliano, Russo, Carr, Maiuro & Becker, 1985) and action oriented coping, accommodation, positive thinking, seeking support, self-blame and defence (Falkum, Olf & Aasland, 1997). Once possible coping methods are assessed and selected, then the final stage of the model occurs, where coping is implemented. Coping has been characterized as (Folkman et al, 1986) "cognitive and behavioural efforts to manage (reduce, minimise, master, or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person's resources". Robbins, Judge and Sanghi (2009), suggest that coping is the main method by which incongruence between global meaning and situational meaning is managed. A failure to cope successfully (from excessive demands or lack of resources) is likely to lead to stress and negative health and organizational outcomes (Chaudhry, 2012).

2.2 Empirical Studies carried on causes and effects of Stress

The literature indicates that there is a relationship between age, gender, marital status, educational level, position, length of service and working experience with occupational stress (Landa et al. 2008; Lu, Siu & Cooper, 2005) but the results of a study that was conducted on urban police officers in the USA, showed that dynamic factors such as work environment and coping mechanisms, contributed more to explain variance of police stress than static factors such as race and gender (He, Zhao & Ren, 2005). In several studies income, heavy workload, lack of workspace, lack of resources (including equipment and material to do tasks), absence of proper company procedures, insufficient time to perform duties, meeting deadlines imposed by others, have been introduced as stressors related to work environment (Botha & Pienaar, 2006). In other studies external accountability, responsibility, work relationships, insufficient consultation, communication, inadequate feedback on performance and organizational changes have been introduced as sources of occupational stress (Sveinsdottir, Biering & Alfons, 2006).

According to Beehr, (2005) work overloads and time constraints were significant contributors to work stress among community nurses. Workload stress can be defined as reluctance to come to work and a feeling of constant pressure (i.e. no effort is enough) accompanied by the general physiological, psychological, and behavioural stress symptoms (Larson, 2004). Al-Aameri (2003) has mentioned in his studies that one of the six causes of occupational stress is pressure originating from workload. Alexandros-Stamatios, et al. (2003) also argued that "factors intrinsic to the job" means workload, variety of tasks and rates of pay.

Grzywacz (2004) conducted a research on stress and education level among 1031 workers. He found out that less educated people suffer few stressful days but when they suffer stress it's more severe and had a large impact on their health. Combs (2004) on the other hand, conducted a research on marital

status and stress among 300 workers and found that married couples reported more stress than their single counter parts.

Karatepe et al (2012) conducted a research on role stress, emotional exhaustion and turnover on frontline hotel employees in Cyprus. The results showed that the positive effect of role conflict and emotional exhaustion on turnover intentions was weaker among the frontline employees with longer tenure. Cavanaugh et al (2010) also conducted a research on role conflict and personality among managers. They found that individuals with type B personality managed conflict better and were better off at managing large organizations.

Philips Campbell and Morrison (2010) conducted a research on satisfaction, stress and spousal support among 242 married veterans. Both genders reported that income and time required for work was the greatest dissatisfaction. Males reported more spousal support on their careers. They proposed a study on the interactive effect among combination of stressors that are commonly found in the world of work. No differences were found between the genders on the effect of work related stress.

Sultana (2012) carried out a study on the nature and impact of teacher stress in the private schools of Gilgit-Baltistan in Pakistan. Analysis of the findings of the study resulted in categorizing them into three groups: personal stress, professional stress and financial stress. However, the impact of each one of the three groups of teacher stress (i.e. personal, professional and financial) was different for different teachers. It looked like some teachers felt more stressed because of a variety of personal and domestic factors, whereas other teachers felt more constrained because of financial issues. Furthermore, the data analysis also highlighted the sources of teacher stress, which could be easily identified as the "inside-school" and the "outside-school" sources of stress. The various findings related to each one of the two categories are revealing as they show the significance and degree of enormity of stress factors related to these groups.

Blomme, Rheede and Tromp (2010) conducted a research on work life programmes and firm productivity among 658 US organizations. It was fully established that organizations that had extensive work life programmes enjoyed productivity benefits. They suggested further research that takes into accounts other organizational variables such as job satisfaction and organizational commitment.

Deaconu (2011) conducted a research on stress management and performance among 180 sales people. He established that Bio feedback and counselling enhanced performance of sales personnel.

Barnett (2004) conducted a research on work hours and stress outcomes among 211 dual income earner couples with children. He found that long hours of work had an effect on marital quality, psychological distress and work-family conflict. He proposed further research on the linkages both individually and within couples between long working hours and health behaviours such as regular exercises, routine medical checkups and healthy eating.

In Kenya a lot of research on causes of workers stress in educational institutions had focused on teachers. Gathungu and Wachira (2013) carried out a study on the job satisfaction factors that influence the performance of secondary school principals in their administrative functions in Mombasa district, Kenya. They found out that the determinants of stress include job satisfaction,

job enhancement, team work, promotion, cooperation, mentoring and training needs, the development, management and recognition of success.

Yambo, et al. (2012) focused on investigating high school principals' stress in relation to their job experience in schools in Southern Nyanza Region of Kenya. They found out that the sources of stress: Role Based, Task Based, Conflict Mediating and Boundary Spanning had a correlation and dependable relationship with High School Principals' job Experience in schools.

Mairura (2009) conducted a research on counselling, self-esteem and stress among 130 teenagers in Nairobi day schools. He found that counselling was effective in managing stress experienced by teenagers and raised their self-esteem. He suggested further research on the same area, expanding the approach to include a larger or more representative sample.

Obwogi (2011) conducted a research on the factors that affect quality of teaching staff in universities in Kenya supplementing Ngoma's research in 2010 on the massive growth of university education in East Africa and the challenges facing the sector from 2000 to 2011. From both studies it's clear that something is not right among the university workers and something needs to be urgently done even as the work load increases in the public universities.

In response to the issue of universities workers problems, Muceke (2012) observed that most of the studies on academic staff retention were based on the corporate sector. There was only one from the public universities done by Tetey in 2009. Muceke (2012) noted the problem of academic staff retention in Kenyan public universities is a pertinent issue and it is expected to be worse with the double intake in 2011/2012 academic year.

Musyoka et al (2013) in their research on the role of stress management in reducing stress and enhancing corporate performance concluded that the Government of Kenya is responsible for all workers through the ministry of labour. It has the duty to set regulations on minimum pay, health and safety of workers among others. They suggest that FKE and COTU should come-up with regulations that will prevent or manage stress. They further suggest that Human Resources Manager who works in these corporations must be able to handle traumatic incidents, mediate conflict situations at work and organize for drug-alcohol abuse programmes for the staff. Getting in touch with employees brings the important aspect of social support which helps employees improve their perception and realize that they are valued, and in turn enhances their self-esteem and confidence at the work place. This translates to higher job performance among employees and is reflected by improvement of the measures of corporate performance such as customer satisfaction, employee creativity, productivity, higher market share and profitability. Critical to organizations supportive culture is sensitizing supervisors to be sympathetic to employees desire to seek balance between work and family needs. Finally managers should organize seminars for employees to educate them on time management, financial management, team work enhancing programmes and healthy living seminars in order to manage their own stress.

III. RESEARCH METHODOLOGY

This study adopted both exploratory and descriptive. Creswell (2014) argues that a flexible research design which provides opportunity for considering many different aspects of a problem is considered if the purpose of the research study is that of exploration. When the purpose happens to be an accurate description of a situation or of an association between variables, the suitable design will be one that minimizes bias and maximizes the reliability of the data collected and analyzed (Kothari, 2004). Given this advice and the nature of this study, a non-experimental hypothesis testing design was adopted as most appropriate for this study. The study sought personal views, opinions, attitudes, and perceptions about causes of workers stress and their effect on the performance of the public universities which could be subjected to experimental design (Silverman, 2013).

The research design used for the study was a cross-sectional evaluation survey. This study collected information from workers in selected universities in Kenya thus making a survey effective in executing the research. An evaluation on the other hand involves the study of an organizational change, curriculum or innovation (Robert, 2002), which involved the evaluation of workers stress causative factors in public universities. However, the survey was cross-sectional survey since the data was collected at one particular time across the selected universities (Schurink, 2009). This research design was applied by the use of both suitable qualitative and quantitative research methods.

Quantitative research makes use of questionnaires, surveys and experiments to gather data that is revised and tabulated in numbers, which allows the data to be characterized by the use of statistical analysis (Denzin and Lincoln, 2005). Quantitative researchers measure variables on a sample of subjects and express the relationship between variables using effect statistics such as correlations, relative frequencies, or differences between means; their focus is to a large extent on the testing of theory. The study intended to establish the causes of workers stress and coping strategies which was collected using questionnaires. The factors were tabulated in the questionnaires and expressed using relative frequencies.

On the other hand, Creswell (2014) points out that there are several common characteristics of qualitative research, which includes: the data is collected in the field at the natural setting; researcher is a key instrument and they also use multiple forms of data collection such as interviews, observations, and documents rather rely on a single data source. This study employed qualitative research while generating data from specific participants on causes and effects of stress on performance and their coping strategies using interviews.

The target population refers to the subjects who possess attributes which the researcher wishes to study and a universe of units from which the sample is to be drawn Devos (2000). Bless and Higson-Smith (1995), define a target population as a set of elements on which the researcher focuses and from which the results obtained by testing the sample can be generalized.

The target population for this study was the staff of three selected public universities in Kenya. This included Jomo Kenyatta University of Agriculture and Technology, University of Nairobi, and Kenyatta University. This refers to the individual

workers; in all levels of employment, at the selected higher institutions as well as representatives from the staff welfare department and the institutions' administration in charge of human resources. Various departmental heads are also targeted as their responsibilities from time to time involve human

resources management. This gave a total target population of 12,805 workers from the three selected public universities as shown on table 3.1 below.

Table 3.1: Population of Workers in the Selected Public Universities

Selected public universities	University workers population
Jomo Kenyatta University of Agriculture and Technology	2,131
University of Nairobi	4,874
Kenyatta University	5,800
TOTAL	12,805

Source :(KUSU, 2014)

Cluster sampling technique was employed for the survey. The cluster sampling design involves the dividing of the population into mutually exclusive groups and then drawing random samples from each group to interview (Kumar R, 2005). This was necessary so as to ensure that the samples selected from each group are represented in the entire sample, which was selected for the study, in proportion to their numbers in the entire targeted population.

The Fishers formula was used to determine the appropriate sample size of this study. This was because the target population consists of a large number of units (public university workers) (Yates, 2004). The researcher assumed 95% desired level of confidence, which is equivalent to standardized normal deviate value of 1.96, and an acceptable margin of error of 5% (standard value of 0.05).

$$n = Z^2pq/d^2$$

Where:

n = the desired sample size (if target population is large)

z = the standard normal deviate at the required confidence level.

P = the proportion in the target population estimated to have characteristic being measured.

q = 1-p

d = the level of statistical significance set.

Assuming 50% of the population have the characteristics being measured, q=1-0.3

Assuming we desire accuracy at 0.05 level. The Z-statistic is 1.96 at this level

$$\text{Therefore } n = (1.96)^2(.5)(.5)/(0.05)^2 = 384$$

The targeted respondents from the selected public universities were categorized into three groups. These groups will include: The academic staff; the administrative staff; and the operative staff.

The cluster samples from the three selected universities were composed of respondent workers as shown on table 3.2.

Table 3.2: Composition of the Cluster Samples

Selected Universities	Public	Academic staff		Administrative staff		Operative staff		Total Respondents	
		Actual	Cluster	Actual	Cluster	Actual	Cluster	Actual	Cluster
JKUAT		702	21	923	28	506	15	2,131	64
University of Nairobi		1,411	42	1,647	49	1,816	55	4,874	146
Kenyatta University		900	27	1,700	51	3,200	96	5,800	174
GRAND TOTAL		3,013	90	4270	128	5,522	166	12,805	384

The data collection tools used for the study were a questionnaire and interview schedules to obtain data from primary sources and a document review and analysis for secondary sources. These tools were selected after carefully considering the nature of the data to be collected, the target population, the time frame and the objectives/ research questions of the study.

a) Interviews

Interviews were important in situations where we cannot observe behaviour or when we do not know how participants experience their world (Cohen et al., 2007). Face-to-face interviews allowed the researcher an opportunity to explore the meaning participants attach to their experiences (Richards, 2003) in causes of their stress and how they are coping with such stress

situations. Face-to-face interview as well allowed the researcher to observe non-verbal cues and appropriately react or modify his inquiry in response to non-verbal cues (Yin, 2003) of participants particularly when they elicit confusion, uncertainty, or waning motivation.

The interviews were based on a prepared set of questions but these were only used as a guide. The research took the same position as Silverman (2013), that in qualitative study, questions are only used as a guide and departures from the guidelines are not seen as a problem but are often encouraged. The interview schedules involved the interviews of some key informants from the selected institutions of higher learning who are in one way or another involved in the welfare of the workers.

b) Questionnaires

Questionnaire has the advantage of being taken to a wider audience compared to interviews, but has a disadvantage of not being possible to customize it to individuals as it is possible with other methods of data collection. The questionnaire was the main data collection tool and it contained both open ended and closed ended questions. This study used two questionnaires that included: Self-evaluation of the determinants of workers' stress (Appendix 1) which was taken by participants in the pilot as well as the actual study to investigate the causes and effects of occupational stress among university workers; this questionnaire also attempted to determine their attitude towards such factors; and Self-evaluation of the effects of the stress factors on their performance and coping strategies employed by the workers in dealing with their stress and stressful situation, was taken by the participants during the actual study.

Primary data was gathered using interview guides and questionnaires which were self-administered. Cooper & Schindler (2004) state that self-administered interviews help to reach a large number of potential respondents in different locations. The questionnaires also helped to collect data from a large population of respondents at a short period of time.

The questionnaire and interview schedule were used to obtain both qualitative and quantitative data from the targeted respondents. Primary data collection was conducted by research assistants and me because of the different locations of institutions of higher learning. The data was collected over a period of one month to be able to meet the requirements of a cross-sectional survey. Secondary data was obtained from literature review and documents about workers stress in institutions of higher learning. The questionnaires with open ended questions on workers stress in public universities in Kenya were administered to selected workers representatives within the selected public universities in Kenya. This informed the second phase of data generation.

The second phase involved: a) administering questionnaires to the respondents who included university workers in the selected public universities; and b) conducting interviews with some key informants from the selected institutions of higher learning who are in one way or another involved in the welfare of the workers by use of interview guides. The questionnaires and the interview guides contained questions on the major issues raised in first phase.

Kombo and Tromp (2006) posit that after constructing a research instrument or questionnaire the researcher should try it out on a small sample of the population. This way of pre-testing or piloting of the instrument enables the researcher to ensure that the questions measure what they are supposed to; that the wording is very clear and unambiguous; that the questions provoke the intended responses and the researcher was able to analyze and know whether the questions posed are skewed towards certain issues more than others.

The questionnaire was pretested before its administration to ensure validity and reliability of the data to be collected. Validity was determined by the use of face validity and content validity. Face validity tests if the questions appear to be measuring the intended sections. On the other hand, content validity tests whether all the important aspects of the sections are measured. This was done by first testing the instruments on 10% of the target population and reviewing the findings. Reliability of the

responses was tested using the Cronbach alpha. Normally, α should be between 0.7 – 0.9 (Santos, 1999).

Data processing operations carried out included data editing/ cleaning and classification. Data editing/ cleaning is the examination of the collected data so as to detect omissions and errors and to correct them whenever possible. Data classification is the arranging of the collected data in classes or groups with common characteristics. The similar data was then tabulated before further analysis is conducted.

The tabulated data was then analyzed using both qualitative and quantitative techniques. Descriptive statistics was used for the analysis of the collected data, and this included parameters such as measures of central tendencies and the measure of dispersion. Inferential data analysis techniques such as regression and correlation analysis were also used to analyze the collected data. These parameters were used to determine and evaluate the relationships of the variables being measured. Data analysis and presentation of findings was carried out using statistical software which includes SPSS version 24 and Microsoft Excel. These software aided in the generation of suitable graphs, charts and tables which were used in drawing conclusions as well as presenting the research findings.

Regression is an important approach to modelling the relationship between the dependent variable (y) and one or more independent variable (x). A regression equation describes how the mean value of a response variable relates to specific values of the predictor variables (Bhattacharyya, 2011). The study used logistic regression analysis to test the statistical significance of the independent variables on the dependent variables.

Logistic regression is used to refer specifically to the problem in which the dependent variable is [binary](#), that is, the number of available categories is two (Hosmer and Stanley, 2000). The probabilities describing the possible outcomes of a single trial were modelled, as a function of the explanatory variables, using a [logistic function](#) (Hosmer and Stanley, 2000). Logistic regression was therefore used to measure the relationship between the categorical dependent variable and the independent variables by using probability scores as the predicted values of the dependent variable (Agestri, 2002).

The study used Binomial logistic regression. Binomial logistic regression refers to the instance in which the observed outcome can have only two possible types (Greene, 2003). The outcomes were coded as "0" and "1", as this lead to the most straightforward interpretation. The target group, the workers whose performance is affected (referred to as a "case") were coded as "1" and the reference group, workers whose performance is not affected (referred to as a "non-case") was coded as "0".

Logistic regression was used for predicting binary outcomes rather than continuous outcomes. It takes natural logarithm off the odds (logit or log-odds) to create a continuous criterion. The logit of success was then fitted to the predictors using regression analysis (Howell, 2010). The results of the logit were converted back to the odds via the inverse of the natural logarithm. Although the observed variables in logistic regression are categorical, the predicted scores were modelled as a continuous variable (the logit). The logit is referred to as the *link function* in logistic regression – although the output in logistic regression is binomial and displayed in contingency table, the

logit is an underlying continuous criterion upon which linear regression was conducted (Howell, 2010).

Faraway (2002), states that regression analysis is a statistical tool for the investigation of relationships between variables. Regression methods have become an integral component of any data analysis concerned with describing the relationship between a response variable and explanatory variables (Hosmer and Stanley, 2000).

The logistic regression equations for performance of workers being affected was expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e \quad (3.1)$$

Where; Y = Performance of workers being affected.

β_0 = Is the constant or coefficient of intercept.

X_1 = Working facilities stress.

X_2 = Workplace relationships stress.

X_3 = Management stress.

X_4 = Movement stress.

X_5 = Motivation stress.

$\beta_1 \dots \beta_4$ = The corresponding coefficients for the respective independent variables.

β_5 = Corresponding coefficients for the moderating variable.

Regression analysis was used by Gathungu and Wachira (2013) who studied the job satisfaction factors that influence the performance of secondary school principals in their administrative functions in Mombasa district, and Obwogi (2011) who studied the factors that affect quality of teaching staff in universities in Kenya.

Working facilities stress was measured by evaluating respondent's opinions on the contribution of the physical facilities available on their environment and the working conditions on their workplace stress. The dependent variable for the study was the performance of the selected public university workers. The workers performance was measured by assessing the physiological and psychological responses that are attributed to exposure to a stress factor.

IV. RESEARCH FINDINGS AND DISCUSSION

Workplace facilities were evaluated using six survey items on a five point likert scale. Most of the respondents (76%) agreed with the statements that they have all the facilities they require to do their work at place of work or office. Majority of the respondents (88%) supported the statement that "Every worker in my organization is accorded office space where and when needed". More than two thirds of the respondents (69%) agreed that offices at their place of work/section are enough and comfortable. On the other hand 60% of the respondent supported the assertion that the current facilities available to work with are adequate and enough for our needs. Almost all of the respondents agreed with the statements that "The location of my place of work and offices are well planned in line with our requirements and therefore appropriate-91%" and "The physical working conditions e.g., ventilation, space, cleanliness, are very good-86%".

Table 4.1: Workplace Facilities

Variable	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I have all the facilities I require to do my work at my place of work or office	1%	3%	20%	15%	61%
Every worker in my organization is accorded office space where and when needed	6%	3%	3%	1%	87%
Offices at my place of work or section are enough and comfortable	6%	2%	22%	12%	57%
The current facilities available for us to work with are adequate and enough for our needs	14%	14%	6%	27%	38%
The location of my place of work and offices are well planned in line with our requirements and therefore appropriate	4%	2%	2%	41%	50%
The physical working conditions e.g., ventilation, space, cleanliness, are very good	2%	8%	4%	43%	43%

To provide a comparative description for the responses across the three universities, the average for each statement were

obtained as shown below. Great discrepancies among the respondents from the three universities were not observed.

Table 4.2: Workplace Facilities across Universities

Variable	University			
	Total	JKUAT	UoN	KU
d1 I have all the facilities I require to do my work at my place of work or office	4.3	4.4	4.2	4.4
d2 Every worker in my organization is accorded office space where and when needed	4.6	4.4	4.6	4.7
d3 Offices at my place of work or section are enough and comfortable	4.1	4.2	4.1	4.2

d4 The current facilities available for us to work with are adequate and enough for our needs	3.6	3.6	3.6	3.6
d5 The location of my place of work and offices are well planned in line with our requirements and therefore appropriate	4.3	4.3	4.3	4.3
d6 The physical working conditions e.g. ventilation, space, cleanliness, are very good	4.2	4.2	4.2	4.2
Average	4.1	4.1	4.0	4.2

Factor analysis Workplace Facilities

Workplace facilities in this study were evaluated using 6 items. The five point likert scale of (6) data items, was used to measure and determine the extent to which Workplace Facilities comprised of the desired outcomes. A correlation was first done on all the data items under Workplace Facilities and only those

that significantly correlated to each other were further reduced into few principal components. Results from correlations showed that “The physical working conditions e.g., ventilation, space, cleanliness, are very good –d6” did not correlate with most of other items and was therefore eliminated before running factor analysis.

Table 4.3: Correlations

	Statistic	d1	d2	d3	d4	d5	d6
d1	Pearson Correlation	1	.299*	.637**	.571**	.619**	.594**
	Sig. (2-tailed)		.033	.000	.000	.000	.000
	N	342	344	343	344	332	344
d2	Pearson Correlation	.299*	1	.637**	.619**	.594**	.299*
	Sig. (2-tailed)	.033		.000	.000	.000	.033
	N	51	50	50	51	50	51
d3	Pearson Correlation	.637**	.637**	1	.612**	.536**	.525**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	341	332	341	342	342	342
d4	Pearson Correlation	.571**	.619**	.612**	1	.607**	.176
	Sig. (2-tailed)	.000	.000	.000		.000	.217
	N	51	51	50	51	51	51
d5	Pearson Correlation	.619**	.594**	.536**	.607**	1	.101
	Sig. (2-tailed)	.000	.000	.000	.000		.332
	N	352	344	353	354	342	342
d6	Pearson Correlation	.594**	.299*	.525**	.176	.101	1
	Sig. (2-tailed)	.000	.033	.000	.217	.332	
	N	341	332	341	342	342	342

** . Correlation is significant at the 0.01 level (2-tailed).

The next table is used as to test assumptions; essentially, the Kaiser-Meyer-Olkin (KMO) statistic should be greater than 0.500 and the Bartlett's test should be significant (e.g. p < .05). The Kaiser-Meyer-Olkin of sampling adequacy was above the threshold of 0.5 (KMO=0.483) indicating that the sample size was adequate for the variables entered into analysis. The

Bartlett's Test of Sphericity was significant ($\chi^2=35.219$, $df=6$, $P=0.002$) showing that factor analysis using principal component was relevant for the data set and there were some relationships between the variables.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling		.483
Bartlett's Test of Sphericity	Approx. Chi-Square	35.219
	Df	15
	Sig.	.002

The table below shows the eigenvalues (variances of the principal components) associated with each linear component (factor) before extraction, and after extraction. The extraction converged in one iteration with one significant component with Eigenvalues accounting for 57.480% of the variance explained.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.024	57.480	57.480	4.024	57.480	57.480
2	.997	14.238	71.718			
3	.625	8.928	80.646			
4	.411	5.871	93.138			
5	.219	3.131	100.000			

Being above the threshold of 50% it indicated that the one-component factor model derived fitted the data appropriately. Items loading greater than 0.6 for the component combined to form the one principal component and the variables that clustered into it are shown in table below.

Table 4.4: Component Matrix

Variable	Component 1
d1 I have all the facilities I require to do my work at my place of work or office	.803
d2 Every worker in my organization is accorded office space where and when needed	.768
d3 Offices at my place of work or section are enough and comfortable	-.765
d4 The current facilities available for us to work with are adequate and enough for our needs	.607
d5 The location of my place of work and offices are well planned in line with our requirements and therefore appropriate	.602

Extraction Method: Principal Component Analysis.
 a. 1 components extracted.

The effect of performance and workplace facilities was examined by calculating the correlations.

Table 4.5: Correlation between Workplace Facilities and performance

	Not depressed	Don't feel bored	Does the best possible job	Enjoy work	Job Commitment	Responsible for actions at work	Motivated and productive creative	Stress and work	Stress reduces productivity	Employee morale	Serves customer efficiently	Productive work	Efficient service delivery
d1	.011	.060	.077	-.099	.071	.225**	-.086	-.219**	-.278**	-.086	-.295**	-.172**	-.226**
d2	.065	.049	-.048	.060	-.150**	.095	.040	.061	.063	.003	-.154**	-.189**	-.059
d3	.083	.082	.003	.269*	.037	.155**	-.039	-.103	.353**	-.028	-.277**	-.023	-.213**
d4	.069	-.027	.097	-.019	.086	.086	-.005	.000	-.066	-.033	-.012	-.061	-.062
d5	.301**	.044	.094	-.024	.017	.072	-.011	.001	-.007	.002	-.019	-.057	-.089
d6	.128*	.052	-.090	-.101	.053	.090	-.054	-.028	.013	-.112*	-.055	-.039	-.018

	Not depressed	Don't feel bored	Does the best possible job	Enjoy work	Job Commitment	Responsible for actions at work	Motivated and productive creative	Stress poor work	Stress reduces productivity	Employee morale high	Serves customer efficiently	Productive work	Efficient service delivery
d1	.011	.060	.077	-.099	.071	.225**	-.086	-.219**	-.278**	-.086	-.295**	-.172**	-.226**
d2	.065	.049	-.048	.060	-.150**	.095	.040	.061	.063	.003	-.154**	-.189**	-.059
d3	.083	.082	.003	.269*	.037	.155**	-.039	-.103	.353**	-.028	-.277**	-.023	-.213**
d4	.069	-.027	.097	-.019	.086	.086	-.005	.000	-.066	-.033	-.012	-.061	-.062
d5	.301**	.044	.094	-.024	.017	.072	-.011	.001	-.007	.002	-.019	-.057	-.089
d6	.128*	.052	-.090	-.101	.053	.090	-.054	-.028	.013	-.112*	-.055	-.039	-.018

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Results showed that lack of depression and effective performance was positively significant at 0.01 level of significance on having all the facilities required to do work at place of work/ office (.301) and significant at 0.05 level of significance on location of place of work and offices well planned in line with our requirements (.128).

Enjoying work was positively and significantly correlated to offices at place of work or section being enough and comfortable (.269). Being committed to jobs was negatively and significantly correlated to every worker in the organization being accorded office space where and when needed (.150). Taking responsibility for actions within the job environment was positively and significantly correlated to having all the facilities required to do work at place of work or office (.255) and offices at place of work or section being enough and comfortable (.155).

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

The performance of the staff, both as teachers, researchers and managers, determines to a large extent, the quality of the student experience of higher education and has a significant effect on student learning and thereby on the contribution that such institutions can make to society. Responsibility for others is often associated with significant occupational stress. Each of the sources of stress that were assessed in this study was found to be significant and that each is a strong determinant of performance of the employees in the public universities and therefore should be given attention.

Working facilities refers to the resources that workers require to accomplish their tasks in the institution. The working facilities include both personal as well as job resources. These facilities buffer the negative effects of stress on the performance. The job facilities/resources mean those physical, psychological, social, or organizational facets of the job which are functional in achieving work related goals, which reduces job demands and the associated costs and which stimulate growth, learning, and development. On other side the personal resources refer to those resources, which are commonly associated with the people's self-

evaluation that enables them to control and influence their environment.

Although the respondents in this study indicate working facilities as the major source of stress that determines their performance in their workplaces, they are positive that the current work facilities in the universities do not expose them to stress. They indicated that they have all the facilities they require to do their work at place of work or office (76%); every worker in my organization is accorded office space where and when needed (78%); and that offices at their place of work/section are enough and comfortable (69%). Notably, almost all the respondents indicated that the location of their place of work and offices are well planned in line with their requirements and therefore appropriate (91%).

Management in this study refers to how the organization supervisors or leaders assign roles to their subordinates and how effectively those roles are assigned to enhance productivity. Working in a large, hierarchical, bureaucratic organization where employees have little control over their jobs can be very stressful. Additionally, when there is a high concentration of assignments at work: excessive work or work that is outside one's capability, employees gets stressed and perform poorly.

Since in management supervisors hold each employee accountable to their actions and duties, and for the quality of work they produce, role conflict that relates with mismatched role potentials, and role ambiguity which explains the uncertainty of what is expected, leads to stress and eventually interferes with the performance of the university workers.

Respondents were neutral on the statement of whether they were not depressed at work and therefore can perform their duties effectively. Respondents did not also know how to rate whether they felt always lazy, bored and headache lowering their output. Most of the respondents felt that they did not do the best possible job. However, most of the respondents enjoy their work and are committed to it.

Keeping in view the important role of university workers in ensuring that the institution achieves its objectives of sustaining economic and social development of the country, the concept of university workers performance has achieved a strategic significance. The performance of university workers is affected

by intra as well as extra organizational factors, which act as impediments to normal routine functioning of the workers. Once the routine functioning of the workers is disrupted, then the university workers develop feelings of exhaustion and frustration, and if the disrupted situation persists then negative dysfunctional feelings hit the workers which can be termed as stress, which is a reaction to the unwanted environmental stressors.

Workers under stress cannot perform well. Their job satisfaction and motivation levels are decreased and they show unwanted behaviours like absenteeism, mistakes during work, drugs use and abuse and violence at work. Furthermore they have more health related physical and psychological complaints. The university employees' satisfaction level is also decreased in such way that the university cannot offer quality education to the students. The resultant effect include complaints from parents and other stakeholders on the status of service delivery at the institutions, frequent strikes, dissatisfied employees and poor performance of the universities in general, and eventually overall image of the educational institution gets damaged.

The findings on the effects of working facilities stress factors on the performance of employees in public universities in Kenya confirm that there is a statistically significant influence of workplace facilities on employee performance. This implies that a positive increase in the conditions of workplace facilities leads to an increase in Employee performance. These results supports those of Botha & Pienaar (2006) who reported that income, heavy workload, lack of workspace, lack of resources (including equipment and material to do tasks), absence of proper company procedures, insufficient time to perform duties, meeting deadlines imposed by others, have been introduced as stressors related to work environment.

The management of public universities is responsible for ensuring that there are smooth operations within the institution. This calls for ensuring that employees are effectively and efficiently assigned roles that are in line with their abilities to perform. When employees are subjected to a high concentration of assignments at work: excessive work or work that is outside one's capability, employees get stressed and perform poorly. Additionally cases of role ambiguity and role conflict can minimise the ability of the employees to deliver of their roles effectively. As such their performance and productivity will be lowered. It hence follows that poor management exposes the employees to stress, reducing their performance. Conclusively the study confirms that there is a statistically significant influence of management on employee performance. This implies that a positive increase in management score leads to an increase in employee performance.

REFERENCES

- [1] Addae H.M., Parbooteah K.P. and Velinor N. (2008), Role stressors and organizational commitment: Public sector employment in St. Lucia, *International Journal of Manpower*, 26(6), 567-582
- [2] Addae H.M., Parbooteah K.P. and Velinor N. (2008), Role stressors and organizational commitment: Public sector employment in St. Lucia, *International Journal of Manpower*, 26(6), 567-582
- [3] Akbar, A. (2011). Faculty Stress at Higher Education: A Study on the Business Schools of Pakistan: World Academy of Science, Engineering and Technology, 1082.
- [4] Al-Aameri S. (2003). "Source of job stress for nurses in public hospitals": *Saudi Medical Journal*, 4(11), pp.1183- 1187.
- [5] Alexandros-Stamatios G. A.et al, (2003), "Occupational Stress, Job satisfaction, and health state in male and female junior hospital doctors in Greece", *Journal of Managerial Psychology*, 18(6), pp. 592-621
- [6] Allen et al (2000), "Consequences Associated with Work Family conflict: a review and Agenda for future Research"; *Journal of occupational Health Psychology* vol. 5 Pg. 278-308.
- [7] Arnold B.et al (2007), Job resources boost work engagement, particularly when job demands are high, *Journal of Educational Psychology*, 99(2), 274-284.
- [8] Aryee, S. et al (1998), "Family Response variables and Retention Relevant outcomes among Employed Parents." *Human Relations* vol. 51 Pg. 73-87.
- [9] Bachkirova, T., (2005), Teacher stress and personal values: An exploratory study. *School Psychology International*, 26(3), 340-352.
- [10] Balt, R. & Valcour, M., (2003), "Human Resource Practices as predictors of work family outcomes and Employee Turnover" *Industrial Relations*. Vol. 42 Pg. 189-220.
- [11] Barling, et al (2004), *Handbook of work stress: New York, USA*.
- [12] Barnett, R.C., (2004) "Work hours as a predictor of stress outcomes" paper presented at a conference towards a National Research agenda: University of Maryland.
- [13] Barsky, A., et al (2004), "Modelling Negative Affectivity and job stress: A contingency Approach." *Journal of Organizational Behaviour*, vol. 36, pg. 915-936.
- [14] Bashir, U. (2010), Impact of Stress on Employees Job Performance: A Study on banking Sector of Pakistan; *International Journal of marketing Studies*, Vol. 2, 122.
- [15] Beehr, T. A. (2005), *Psychological Stress in the Workplace*, London and New York.
- [16] Betoret T., (2006) Stressors, self-efficacy, coping resources and burnout among secondary school teachers in Spain, *Educational Psychology*, 26(4), 519-539.
- [17] Blomme, R.J., et al (2010), Work-family conflict as a cause for turnover intentions in the hospitality industry: *Tourism and Hospitality Research*, 10(4), 269-285.
- [18] Bloona, R., (2007), *Coping with stress in a changing world: New York McGraw – Hill*.
- [19] Botha C & Pienaar J., (2006), South African correctional official occupational stress: the role of psychological strengths: *Journal of Criminal Justice*. 34(1): 73-84.
- [20] Bradley j. (2007) Job tenure as a moderator of stressor–strain relations: A comparison of experienced and new-start teachers, *Work and Stress*, 21(1), 48-64.
- [21] Brown, Z. A., & Uehara, D. L. (2008).Coping with teacher stress: A research synthesis for Pacific education. www.prel.org: Accessed on 5th December 2013.
- [22] Brown, Z. A., & Uehara, D. L. (2008).Coping with teacher stress: A research synthesis for Pacific education. <http://www.prel.org>
- [23] Cannon, and Walter, B., (1929) *War conflict: Double Rainbow*. Inc Data Render time: 623.
- [24] Caulfield, N., et al (2004) A reviews of occupational stress interventions in Australia: *International Journal of stress management* vol. 11 pg. 149-166.
- [25] Certo S.C. (2003), *Supervision: Concepts and skill building*, New York, NY: McGraw Hill
- [26] Chan H (2003), Hardiness and its role in the stress-burnout relationship among prospective Chinese teachers in Hong Kong, *Teaching and Teacher Education*, 19(4) , 381-395.
- [27] Chang, K., & Lu, L., (2007), Characteristics of organizational culture, stressors and wellbeing: The case of Taiwanese organizations: *Journal of Managerial Psychology*, 22, 549-568.
- [28] Chang, K., & Lu, L., (2007), Characteristics of organizational culture, stressors and wellbeing: The case of Taiwanese organizations: *Journal of Managerial Psychology*, 22, 549-568.
- [29] Chaudhry, A. Q. (2012). An Analysis of Relationship between Occupational Stress and performance .*Bulletin of Education and Research*, 13.

- [30] Cherry, N. M., et al. (2006), "Reported incidence and precipitating factors of work-related stress and mental ill-health in the United Kingdom (1996-2001)": *Occup Med (Lond)* 56(6): 414-421.
- [31] Cohen, S. and Williamson, G.M., (1991), Stress and infectious diseases in humans: *Psychology Bull* vol. 109 p 5-24.
- [32] Coleman, V., (1998) *Stress management Techniques managing for Healthy profits*. London: Cox T. 1980 stress, Maryland University park press.
- [33] Cox, T., Griffiths, A. & Rial-Gonzalez, E. (2000), *Research on Work-Related Stress*, Office for Official Publications of the European Communities: Luxembourg.
- [34] Dar L., Akmal A., Naseem A.M. and Khan K.U. (2011), Impact of stress on employee job performance in business sector of Pakistan, *Global Journal of Management and Business Research*, 11(6), 1-4
- [35] Deaconu, G., (2011), "Stress management strategies for organizations." *Psychology Review*, July.
- [36] Dua, J., (1994), "Job stress and their effects on physical Health, Emotional Health and Job Satisfaction": *Journal of Education and Administration*. Vol. 32, pg. 59-78.
- [37] Falkum, E. et al (1997), Revisiting the factor structure of the ways of coping checklist: a three-dimensional view of the problem-focused coping scale: A study among Norwegian physicians; *Personality and Individual Differences*, 22, 257-267.
- [38] Folkman, S. et al (1986), Appraisal, Coping, Health Status, & Psychological Symptoms, *Journal of Personality and Social Psychology*, 50, 571-579.
- [39] Friedman, M., and Roseman, R., (1974), "Type A Behaviour and Your Heart." Greenwich: Fawcett publications.
- [40] Giga, S., (2011), *The Implied Employment Relationship: Investigating the effects of psychological contract violations on Employee Wellbeing*: Doctoral Thesis University of Manchester Institute of science and Technology, Manchester.
- [41] Glenn, D. I., (2012), "Determining Sample Size, PEO6." University of Florida; IFAS Extension: Obtained from <http://edis.ifas.ufl.edu>.
- [42] Greenberg, J., and Baron, R., (2007) "Behaviour in organizations." New York: Prentice Hall.
- [43] Guglielmi, R., & Tatrow, K. (1998), Occupational stress, burnout, and health in teachers: A methodological and theoretical analysis. *Review of Educational Research*, 68(1), 61-99.
- [44] Hackman, J. R., & Oldham, G. R. (1980). *Work Redesign*, Reading, MA: Addison-Wesley.
- [45] HavLovic, J. & Keenan, P., (1991), "Coping with stress: The influence of Individual Characteristics" ; *Journal of Social Behaviour*. Vol. 6, pg. 25-51.
- [46] He, N. et al (2005), Do race and gender matter in police stress: A preliminary assessment of the interactive effects: *Journal of Criminal Justice*. 33(6): 533-47.
- [47] IvaneRich, J. et al (2006), "Organization Behaviour and Management": New York; Mc. Graw Hill.
- [48] Jayashree, N., (2008), "Factors influencing stress and coping strategies among the Degree College Teachers of Dharwad City, Karnataka": Unpublished Msc thesis, University of Agricultural Sciences, Dharwad.
- [49] John, J., (2009), Hedrich Centre for workforce Development, "Work and Family Pressures Undercutting": *Journal of Technology and Education in Nigeria*. Vol. 12(2) pg. 9-18.
- [50] Judge Sharon, (2003), "Determinants of parental stress in Families Adopting Children from Eastern Europe": National council on Family Relations. Vol.52 (3) pg. 241-248.
- [51] Kaplan, H.G., et al (2004), "Efficacy and Safety of different doses": *Journal of Cannabis Therapeutics* (2001-2004).
- [52] Karasek, R., et al., (1981), "Job decision latitude, job demands and cardiovascular disease: a prospective study of Swedish men": *American journal of public health*, (71) pg. 694-705.
- [53] Karatepe, O.M. et al (2012), Affectivity and organizational politics as antecedents of burnout among frontline hotel employees: *International Journal of Hospitality Management*, 31(1), 66-75.
- [54] Khanka, S.S., (2007) "Corporate Behaviour." New Delhi, Chand and company Limited.
- [55] Kolt G. (2003), Eustress, distress, and interpretation in occupational stress, *Journal of Managerial Psychology*, 18(7), 726-744
- [56] Kompier, M., (2003), Job Design and Well-being: In M. Schabracq, J. Winnubst & C.L. Cooper, (Eds.), *Handbook of Work and Health Psychology*, 429-454.
- [57] Konirigield, et al (2004), "Work Related Stress": European Foundation for Improvement. www.eurofound.europa.eu/...rts/TN0502TRO1/TNO502TR.
- [58] Kreitner, R., Kinicki, A., (2007), "Organizational Behaviour:" Mc. Graw Hill.
- [59] Kumar, I. A. (2013), Occupational Stress among Male and Female Elementary School Teachers of District Pulwama: *International Journal of Scientific & Engineering Research*, 940.
- [60] Kumar, R., (2005) *Research Methodology-A Step-by-Step Guide for Beginners*, Pearson Education. 2nd ed, Singapore.
- [61] Landa, J. M.A. et al (2008), The relationship between emotional intelligence, occupational stress and health nurses: a questionnaire survey; *International Journal of Nursing Studies*. 45(6): 888-901.
- [62] Larson, L. L. (2004). Internal auditors and job stress. *Managerial Auditing Journal*, 19, 1119-1130.
- [63] Larson, L. L. (2004). Internal auditors and job stress. *Managerial Auditing Journal*, 19, 1119-1130.
- [64] Larson, L. L. (2004). Internal auditors and job stress. *Managerial Auditing Journal*, 19, 1119-1130.
- [65] Le Fevre M., Matheny J. and Kolt G. (2003), Eustress, distress, and interpretation in occupational stress, *Journal of Managerial Psychology*, 18(7), 726-744
- [66] Le Fevre M., Matheny J. and Kolt G. (2003), Eustress, distress, and interpretation in occupational stress, *Journal of Managerial Psychology*, 18(7), 726-744
- [67] Lee, David, (2009) *Managing Employee Stress and Safety*, Brochure: Author Memic.
- [68] Lind, S.L., and Otte, F.L., (1994) Management styles mediating variables and stress among HRD professionals, *Human Resource Development*. Winter: pg. 301.
- [69] Lu CQ, et al (2005), Managers' occupational stress in China: the role of self-efficacy: *Personality and Individual Differences*. 38(3):569-78.
- [70] Luthan, F., (2008), *Organizational Behaviour*: New York: Mc. Graw Hill.
- [71] Mairura, L., (2009), "counselling for Teenagers with chronic stress: A case of students in Nairobi Day Schools." Nairobi, Kenya
- [72] Margets, E.L., (1975), "Stress, Homeostasis and the Human Ecological continuum": *Journal of Society, Stress and Distress*. vol. 2. Pg. 22-36.
- [73] Mark, G.M. & Smith, A. P. (2008), The relationship between workplace stress and job characteristics, individual differences, and mental health.
- [74] Mc. Gart, J., (1976), *Social and Psychological Factors in Stress*. New York: Holt and Rinchart.
- [75] Mc. Hugh, M., (1997) "The stress factor: another Item for change management Agenda." *Journal of Organizational change* vol. 10 pg. 345-362.
- [76] Mc. Shane, S., Von. Glinow, and Sharma, R., (2008) *Organizational behaviour*. New Delhi: Mc. Graw.
- [77] Miller, L., (2009) *Stress Causes Rigidity (PhD)*. The Business case for stress management – 4 imprint .Info.4imprint.com/...t/uploads/M0709-02 blue-papers.
- [78] Mohammadi Z. et al. (2013), Evaluation of relationship occupational stress with shift work in the agency drivers in Yazd: *Occupational Medicine*, Vol. 6, No. 3
- [79] Mohanraj, P. & Manivannan, L., (2013), Occupational stress among migrated workers in unorganised sectors : IRACST- *International Journal of Research in Management & Technology (IJRMT)*. Vol. 3, No.1.
- [80] Mojoyinola, J. K. (2008), Effects of Job Stress on Health, Personal and Work Behaviour of Nurses in Public Hospitals in Ibadan Metropolis, Nigeria: *Journal of Social Work* , 143-148.
- [81] Munalu, J., (2005), "Stress and Individual Performance of workers in Hotels at the Kenyan coast": Unpublished M.A. thesis, Cornell University USA.
- [82] Musyoka, M. et al (2012), Employee stress and performance of companies listed in the Nairobi securities exchange: *DBA Africa Management Review* 2012, vol.3. No. 1 pp 115-129.
- [83] Naituli, B.K., (2008), "Leadership practices and the influence of stress: A study of Kenyan managers": Unpublished thesis, Egerton University.

- [84] Nakata, A., M. Takahashi, et al. (2008). "Perceived psychosocial job stress and sleep bruxism among male and female workers." *Community Dent Oral Epidemiol* 36(3): 201-209
- [85] National Occupational Health and Safety Commission (2003), 'Compendium of workers' compensation statistics, Australia, 2000-2001: Canberra, Australia. NEL MH, (2004)
- [86] New Stroom, J., (2007) organization behaviour: human behaviour at work. New Delhi: Mc. Graw Hill.
- [87] Ng'ethe, J.M. (2012), Determinants of Academic Staff Retention in Public Universities in Kenya: Empirical Review. *International Journal of Humanities and Social Science* Vol. 2 No. 13
- [88] Ngeno, G., (2007) "Causes of Burnout among primary school Teachers within Kericho municipality, Kenya."
- [89] Ngome, C.K. (2010) Massive Growth of University Education in East Africa and the Challenges facing the Sector from 2000 to 2011: The case of Kenya, IUCEA conference, 19th-21st October, 2010, Kampala, Uganda.
- [90] Nilufar, et al (2009) International conference on Business and Economic Research, Academic report has been reported all over the world.
- [91] NIMH (2013), Stress for Adults: How it affects your health and what you can do about it. Available at: http://www.nimh.nih.gov/health/publications/stress/Stress_Factsheet_LN_142898.pdf
- [92] Noblet, A., (2003) "Building Health promoting work settings: Identifying the relationship between work characteristics and occupational stress in Australia" *Health Promotion International*. Vol.18 (4) pg.351-359.
- [93] Obwogi, J. (2011), Factors that affect Quality of Teaching Staff in Universities in Kenya. PhD Thesis, Jomo Kenyatta University of Agriculture and Technology
- [94] Olali, B., (2005), "Stress and Individual Performance: A case of Kaimosi Teachers College" Unpublished M.A.; Thesis Moi University, Kenya.
- [95] Owino, G. et al (2011), Role of institutional managers in quality assurance: reflections on Kenya's University education: *Australian Journal of Business and Management Research*. Vol.1 No.2
- [96] Pabla, D. M. (2012), Occupational Stress Amongst Teachers of Professional Colleges in Punjab: *Indian Journal of Research*, 112.
- [97] Park, C.L. & Folkman, S. (1997), Meaning in the context of stress and coping, *Review of General Psychology*, 2, 115-144.
- [98] Park, C.L. & Folkman, S. (1997), Meaning in the context of stress and coping, *Review of General Psychology*, 2, 115-144.
- [99] Perrewe, P.L., & Zellars, K.L. (1999), An examination of attributions and emotions in the transactional approach to the organizational stress process: *Journal of Organizational Behaviour*, 20, 739-752.
- [100] Pestonjee, D.M., (1992), Stress and Coping .Sage publications New Delhi.
- [101] Pierce J., & Delahaye, B., (1996), Human Resource management implications of dual-career couples .*International Journal of Human Resource management* (v7) pg. 905-923.
- [102] Porter, and Steers, (1987), Effects on role loss on work-related attitudes. *Journal of Applied Psychology* vol. 72(2) pg. 287-293.
- [103] Ramzan, M., (2012), A Study on Understanding the Factors Contributing To Teachers' Professional Stress in the Private Schools of Gilgit-Baltistan. *Strength for Today and Bright Hope for Tomorrow*, 349
- [104] Repeth, R.L (1993), "The effect of workload and Sonal Environment on Healthin L. Goldberger and S. Breznitz (Ed). *Handbook of stress: Theoretical and Clinical Aspects*. pp 120-130
- [105] Robbins S. et al (2009), *Organization and stress management*: New Delhi, India; Dorling Kindersley
- [106] Robbins, and Judge, (2007), *Organizational behaviour*: New Jersey; Pearson Education.
- [107] Robbins, S., (2003), *Organizational behaviour*: New Jersey; Pearson Education. Rutgers University.
- [108] Robert, J. C., (2002) Types of Research Design: Analyzing, Interpreting & Using Educational Research. Resources for the Ed. D. unit, Research Methods, 2002 found at www.dur.ac.uk/r.j.coe/resmeths/types.doc.
- [109] Rosania, A. E., K. G. Low, et al. (2009). "Stress, depression, cortisol, and periodontal disease": *J Periodontol* 80(2): 260-266.
- [110] Santos, J. R. A., (1999) Cronbach Alpha: A Tool for Assessing the Reliability of Scales. Available at <http://www.joe.org/joe/1999april/tt3.html>.
- [111] Sayeed, O.M., (2001), *organizational commitment and conflict*. New Delhi: Sage publication.
- [112] Selye, H., (1956) *Stress of Life*. McGraw Hill: New York.
- [113] Spector, P.E., (2002), "Employee Control and Occupational Stress": Sage publications, vol.11 (4) pg. 133-136.
- [114] Sultana, B. (2012), The Nature and Impact of Teacher Stress in the Private Schools of Gilgit-Baltistan, Pakistan: *International Journal of Academic Research in Progressive Education and Development*, 82, 83.
- [115] Sveinsdottir, H., et al (2006). Occupational stress, job satisfaction, and working environment among Icelandic nurses: a cross-sectional questionnaire survey: *International Journal of Nursing Studies*. 43(7): 875-89.
- [116] Tetey, J.W. (2009), Deficits in Academic Staff Capacity in Africa and Challenges of Developing and retaining the next Generation Academics: Partnership for Higher Education in Africa.
- [117] Trice, H.M. & Sonnenstuhl, W.J., (2010), "The construction of drinking norms in work organizations": *Journal of studies on Alcohol* vol. 51, pg. 201-220.
- [118] Vakola, M., & Nikolaou, I. (2005), Attitudes towards organizational change: What is the role of employees' stress and commitment? *Employee Relations*, 27, 160-174.
- [119] Vitaliano, P.P. et al (1985), The Ways of Coping Checklist Psychometric Properties, *Multivariate Behavioural Research*, 20, 3-26.
- [120] Warr, P., (1990), The Measurement of Well-being and Other Aspects of Mental Health.: *Journal of occupational psychology*. (v.52) pg. 129-148.
- [121] Waswa F. & Swaleh S. (2012), Faculty opinions on emerging corporatization in public Universities in Kenya. *Education and General Studies* Vol. 1(1) pp. 009-015
- [122] Webster, T., & Bergman, B., (2009), Two international conferences on management 969 (21CM 2012): Occupational stress: counts and rates compensation and working conditions. Washington, USA.
- [123] Welford, A., (1973), "Stress and performance": *Ergonomics*, vol. 16 pg.567.
- [124] West, H., & Mackay, J., (1999), "Employment Roles and Counsellors in Employee Assistance Programmes": *Journal of counselling psychology*. Vol.7 pg. 355-389.
- [125] White E. (2006), Opportunity knocks and it pays a lot better, *The Wall Street Journal*, 13
- [126] Wilson, B., (2007) *Wilson Heart care, Heart Math and Cardiologist...publications in January 2007(PhD)*. www.wilsonheartcare.com/bio 2.html
- [127] Workplace Relations Ministers' Council (2003) Comparative performance monitoring, fifth report,' Australia and New Zealand Occupational Health and Safety and workers' compensation schemes,' Canberra.
- [128] Worrall, L., & Cooper, C., (1999), *Quality of working life survey*: Institute of Management, London.
- [129] Yagil, D., (1998). If anything can go wrong, it will: occupational stress among inexperienced teachers: *International journal of stress management*. (v5) pg. 179-188.
- [130] Yamane, Y., (1976) *Statistics: An introductory Analysis*, 2nd Ed. New York: Harper and Row.
- [131] Yambo, J.M.O. et al (2012), Investigating High Schools Principals Stress in Relation to their job experience in schools in Southern Nyanza Region of Kenya: *International Journal of Academic Research in Progressive Education and Development*, vol. 1, No. 4 ISSN 2226-6348.
- [132] Zhimin, L. & Ramani K., (2012), A study on the conflict resolution mechanisms in higher educational institutions: A case of Kenya's public universities. *Educational Research Journals* Vol. 2(6), pp. 208-216.

AUTHORS

First Author – John Ng'ang'a Karihe, Doctor of philosophy in Human Resources Management of Jomo Kenyatta University of Agriculture and Technology
Second Author – Professor G. S. Namusonge, Supervisor, Jomo Kenyatta University of Agriculture and Technology

APPENDIX 3: TABLES
Table 4.6: Correlations for Employee Performance

	Statistic	g1	g2	g3	g4	g5	g6	g7	g8	g9	g10	g11	g12	g13
g1	Pearson Correlation	1	.009	.012	-.080	.069	.033	-.067	-.019	-.011	-.060	-.037	-.033	-.098
	Sig. (2-tailed)		.871	.833	.153	.205	.544	.217	.726	.845	.273	.498	.541	.075
g2	Pearson Correlation	.009	1	-.025	-.070	.110	.176**	.286**	.141*	-.188**	.265**	-.147**	-.074	.139*
	Sig. (2-tailed)	.871		.658	.229	.053	.002	.000	.013	.001	.000	.009	.197	.016
g3	Pearson Correlation	.012	-.025	1	.104	-.037	-.025	.030	-.016	.028	-.008	-.075	-.059	-.006
	Sig. (2-tailed)	.833	.658		.064	.502	.645	.582	.776	.618	.881	.172	.284	.920
g4	Pearson Correlation	-.080	-.070	.104	1	.076	-.113*	.248**	.040	.261**	.309**	-.261**	-.121*	-.061
	Sig. (2-tailed)	.153	.229	.064		.169	.041	.000	.473	.000	.000	.000	.028	.278
g5	Pearson Correlation	.069	.110	-.037	.076	1	.022	-.121*	.015	-.157**	.136*	.151**	.277**	-.063
	Sig. (2-tailed)	.205	.053	.502	.169		.682	.025	.778	.004	.011	.005	.000	.249
g6	Pearson Correlation	.033	.176**	-.025	-.113*	.022	1	-.155**	.117*	.081	.068	-.273**	-.358**	-.209**
	Sig. (2-tailed)	.544	.002	.645	.041	.682		.004	.030	.134	.212	.000	.000	.000
g7	Pearson Correlation	-.067	.286**	.030	.248**	-.121*	-.155**	1	.162**	.211**	.462**	-.214**	-.140**	.228**
	Sig. (2-tailed)	.217	.000	.582	.000	.025	.004		.003	.000	.000	.000	.009	.000
g8	Pearson Correlation	-.019	.141*	-.016	.040	.015	.117*	.162**	1	.118*	.312**	.022	-.005	.237**
	Sig. (2-tailed)	.726	.013	.776	.473	.778	.030	.003		.028	.000	.688	.933	.000
g9	Pearson Correlation	-.011	-.188**	.028	.261**	-.157**	.081	.211**	.118*	1	.176**	-.070	-.026	-.048
	Sig. (2-tailed)	.845	.001	.618	.000	.004	.134	.000	.028		.001	.194	.637	.382
g10	Pearson Correlation	-.060	.265**	-.008	.309**	.136*	.068	.462**	.312**	.176**	1	.101	.107*	.345**
	Sig. (2-tailed)	.273	.000	.881	.000	.011	.212	.000	.000	.001		.061	.049	.000
g11	Pearson Correlation	-.037	-.147**	-.075	-.261**	.151**	-.273**	-.214**	.022	-.070	.101	1	.693**	.192**
	Sig. (2-tailed)	.498	.009	.172	.000	.005	.000	.000	.688	.194	.061		.000	.000
g12	Pearson Correlation	-.033	-.074	-.059	-.121*	.277**	-.358**	-.140**	-.005	-.026	.107*	.693**	1	.218**
	Sig. (2-tailed)	.541	.197	.284	.028	.000	.000	.009	.933	.637	.049	.000		.000
g13	Pearson Correlation	-.098	.139*	-.006	-.061	-.063	-.209**	.228**	.237**	-.048	.345**	.192**	.218**	1
	Sig. (2-tailed)													

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).