

The Effect of Teleworking on Work Stress Among Non-Teaching Employees in Public Universities: A Case of the University of Nairobi and South Eastern Kenya University

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Abstract

Teleworking is an alternative work arrangement, where information and communication technologies enable employees to work outside the traditional working space. Work related stress can therefore spill over to the virtual offices from the traditional offices. This study aimed at finding out if teleworking had any effect on work stress among non-teaching employees in the public universities. University of Nairobi and South Eastern Kenyan University were picked to represent all other public universities. The theories guiding the study were the Organizational adaptation theory and the transactional theory of stress. The researcher used descriptive design and the target population was the senior administrative staff (grade 11 to 15), middle grades (grade A to F) and grade 1 to 4. A sample size of 357 was obtained from the target population of 3289 and questionnaires were administered. Data was presented through charts, graphs and tables. Regression analysis was used to establish the relationship between the teleworking and work stress. The results revealed that Public universities were using teleworking as an alternative way of organization work with Zoom being the most used form although there seemed to be some departments where teleworking was a challenge due to nature of work. Teleworking came with its own challenges among them being internet connectivity issues and power outages. The study concluded that teleworking had an effect on work stress among the non-teaching employees in the public universities in Kenya. Social isolation contributed most to the work stress, followed by the inability to make decisions remotely. Convenience due to Teleworking reduced the level of work stress. The study recommended that public universities should work on their ICT infrastructure to ensure that employees are well connected since network and internet connection were sighted as the most challenging issue in the teleworking. A proper reporting and feedback teleworking mechanism should be employed to ensure that feedback is received on time to facilitate action taking. Investing in training of staff is also important since it will make employees work with a lot of ease hence, less stress. Employees need to interact physically once in a while which in turn reduces stress levels. A well-organized way of working would reduce the pressure that comes with teleworking.

Keywords: Teleworking, Work Stress, Non-teaching Employees, Public Universities, University of Nairobi, South Eastern Kenya University, Kenya

DOI: 10.7176/EJBM/15-2-04

Publication date: January 31st 2023

1. INTRODUCTION

The practice of teleworking is both popular and divisive. Teleworking has evolved into a manner of working that may be employed as part of agile working over time. The results of Thorstenson's (2020) study show that working remotely has a significant impact on productivity. While impacts of some of the main factors were found to be either positive or negative, some of these factors greatly depended on the predominant features and attitude of the individual employee and the circumstances. According to Irak&Mantler (2017) offering employees more control over their schedule boosts their autonomy, which helps to meet a key psychological need. Organizations that allow employees to pick their own schedules are more likely to retain satisfied and devoted employees who believe they are a good fit for their firm. Tamunomiebi et al (2019) findings show a positive relationship that existed between telecommuting and the fundamentals of organizational performance, in the case of Mobile (GSM) telecommunication companies operating in Port Harcourt.

Teleworking is now widely regarded as a flexible method of scheduling work. Teleworking is a type of alternative work arrangement aided by information and communication technologies that allows employees to work outside of the traditional workplace, bringing work to them (Lake, 2013). Work related stress can spill over

from the traditional offices to the virtual offices (Enter, 2007). Work stress is a common occurrence among many people within the modern society. In practice teleworking may affect employees differently from working in work place. Some studies have shown that remote working enhances work-life balance (Ray, 2009) while others have shown that having a perfect balance between personal and professional life balances negotiation in the families and this leads to high levels of work stress (Sullivan, 2012). Teleworking allows employees to work from where they are thus reducing the stress that comes with the time of commuting (Kemerling, 2002) but also employees who take home work with them tend to overwork which may lead to tiredness hence increase in work stress (Ojala, 2011). Lake (2013) states that issues of stress can originate from the family level and extend to the pressures at work places as have been illustrated by different sources like start from the daily hassles of family to the work place or from the work place (Enter, 2007).

According to organizational adaptation theory, organizations will change their structures or methods, in whole or in part, in order to keep up with changing market conditions or shifting environmental elements (Bess & Dee, 2008). Organizational adaptability is a thorny issue. The notion serves as glue that holds the core challenges of organizational change, performance, and survival together. Organizational adaptation is defined as changes and adaptations made to an organization or its components in order to respond to changes in the external environment (Burke, 2008). Its goal is to bring an uneven situation back into balance. The transactional theory of stress and coping noted that individual factors and contextual influence have a significant impact on the acute and chronic outcomes of stress. There are five stages to the system. The first stage, according to Cox (1978), represents "the sources of demand pertaining to the person" and is an element of the individual's environment. Perceptions of the demands by individuals and their ability to adapt to the existing coping strategies make up the second stage. 'Stress occurs when people experiences an imbalance between the perceived demands and the impression made by individuals on their ability to meet the demand,' according to Cox (1978). The third stage involves the psychophysiological levels that correlate to the stress reaction. The fourth stage, according to Cox (1978), is focused on the implications of the different coping responses, whether they are mere perceived or the actual responses as displayed by the people. The model's fifth and final stage centers on feedback, which is observed to occur at every stage and influences the outcome of every stage.

Knowledge has become the currency of the realm in today's globe, defining national prosperity, and enormous factors are pushing an increase in public demand for university education services (Bailey et al 2010). Universities, according to Willmott (1993), are repositories of expertise and knowledge capital. Universities serve as hubs for research, as well as providing researchers with assistance, exposure, and promotion. Universities generate significant economic benefits by attracting research, improving population skills and education levels, and integrating with local economies and communities (Kivati 2017). They provide graduates with significant financial rewards. Universities provide environments for the development of expertise, the validation of learning, and the prestige of people who are linked with them. Additional qualities that foster output and invention 'amplify' the university's position in a country's intellectual capital (Arbo&Benneworth 2007). Because non-teaching staff represent personnel in numerous organizations whose task is to give support services to an organization's fundamental objective, the researcher is motivated to conduct the research on specifically non-teaching members of staff from public universities.

Tele working was not predominantly an option for all industries before COVID-19. However, after COVID 19 pandemic it has become a new normal and unprecedented. In March 2020, Kenya had first case, which led to lock down and ban on inter-county travel followed. The President further declared curfew, Closure of learning institutions, ban on gatherings, restricted movement. Feelings of uncertainties and vulnerability caused the universities to look for other alternatives other than face-to-face working. Immediately the Universities commenced on staff training on online lectures and examination.

Thorstensson (2020) conducted a comparative document analysis in Sweden between the years 2000 and 2019-2020 on The Impact of Working from Home on Employee Productivity. The findings revealed that while some aspects of the working from home practice have a good impact on productivity, others have a negative one. Moreover, he found out that there are other factors which influence productivity. He also discovered that there are additional elements that affect productivity. The results of Bhattarai's (2020) research on Working from Home and Job Happiness in Toronto during pandemic times showed that the majority of employees were content even when working from home, but there were several critical components of job satisfaction that must not be overlooked. According to Ward, working from home has an impact on the overall motivation and performance of employees in a financial firm in Ireland (2017).

Employees who worked from home were much more motivated because they believed they could push through their workload to finish work responsibilities and get the job accomplished. According to a study by Singh et al. (2017) on the influence of working remotely on productivity and professionalism in India, there were more odds that the choice of working remotely would negatively affect employee productivity and professionalism than it would positively affect it. The above studies did not address the relationship between the teleworking and employees' stress levels again the studies did not address the non-teaching employees in the

public universities. Thus this research sought to answer the question; Does teleworking have any effect on Work stress among the non-teaching employees at the University of Nairobi and South Eastern Kenya University?

2. LITERATURE REVIEW

Theoretical Foundation

This study was grounded on the organizational adaptation theory and transactional theory of stress. Organizational adaptation theory as advanced by Hrebiniak & Joyce, (1985) addresses how business and organizations change in the face of market or environmental factors. Institutions will adapt how they operate or function in order to keep up with changing market conditions or shifting environmental elements. This could be due to a variety of factors, including new legislation that affects a business or shifting consumer preferences, to name a few. According to the hypothesis, organizations that adapt are more effective in the long run. This theory is relevant in that, organizations (such as institutions of higher learning) will change their structures or procedures in whole or in part to adapt to the changing environments like the shifting economic landscape, the incorporation of new regulations by the ministry of education, or new legislation impacting their field. Detractors of this theory claim that the paradigm misses scenarios where non-management staff and other direct stakeholders may need to make changes. These opponents argue that successfully leading change necessitates a strategy that extends beyond a rigorously regulated, linear series of events (Lyon et al, 2018). However, organizations on the other hand tend to take a mechanistic approach.

Cox (1978) presents the transactional theory of work stress which starts by demand from the environment which requires an individual to act. It is followed by the perception of the individual on whether they have capacity to meet the demand or not. This is done when an individual tries to match the perceived demand and perceived capability and if there perceived to be imbalance between the two then the individual gets stressed. An individual can experience emotional, psychological or even physiological stress response. The idea of work-related stresses is anchored in this model's basic descriptions of response-stimulus based definitions of stress and the emphasis that stress is "an individual perceptual phenomenon rooted in psychological processes" in the context of the current study (Cox, 1978) The feedback aspects of the system are also highlighted, implying that it is cyclical rather than linear. This approach favors analyzing the individual's qualities and how he or she reacts to a specific situation, according to detractors of the theory. This contrast between transactional and interactional techniques is useful because it stresses the necessity of taking into account or ignoring an individual's view of a work scenario. However, detractors point out that it is also fairly discriminatory in that it lumps various models together into a single category.

Tele-working

Telework is described as the use of information and communication technologies (ICTs). According to Euro found and ILO (2017) Smart phones, tablets, laptops and desktop computers are the important in facilitating teleworking. In other terms, telework refers to work done remotely using ICTs. It enables workers to work from anywhere and anytime through information communication technologies (Garett & Danziger, 2006). New information and communication technologies have revolutionized work and life in the twenty-first century, according to Eurofound and the International Labour Organization (ILO). Work may be done at any time and from practically anyplace thanks to the ongoing connectivity. According to Hendricks (2014), Technological tool enables people to work remotely as long as these tools are able to work optimally. With tele-working, there are several opportunities that help reconcile work and family and create a new approach to work-life balance, and this benefits women the more. Teleworking give employees power to work anytime, and anywhere using the Information Communication Technologies (ICT) there by blurring the temporal and geographical boundaries of work.

Teleworking involves use of emails, online chat programs, video calls and also telephone calls in communicating unlike in normal office where there is physical interaction and communication. Information Communication Technology tools like Google classroom, zoom, Google meet, Slack and Microsoft teams enables shifting from face to face to online meetings. Virtual Private Network (VPN) enabled the employees to log in to the various organization's systems and work comfortably as if they are in the traditional office space. Among the work done include processing data such as text, graphics and video (Akbar et al, 2020). It has become more common for organizations to offer their employees the option to tele work for various reasons. Its benefits both actual and perceived include; decreasing office rent costs, greater flexibility, balancing work life for the employees, increased productivity, better quality communication with customers, reductions in the rental expenses, improved employee morale and reduced congestion in traffics and air pollution and saving time on commuting (Allyn, 2020). There are however challenges associated with teleworking, companies implementing teleworking programs may also face significant challenges including; difficulties in supervising and managing remote workers, more possible distractions, can be difficult to draw line between work time and personal time, feelings of loneliness among employees, inefficiencies associated with poor collaboration due to remote location

of workers and increased security risks., (Dooley 2020).

Work Stress

Over time, stress has been described in a variety of ways. It was first thought as pressure from the environment, then as strain within the individual. Stress, according to Ayala, (2002) is the physical and emotional reactions that people have to changes, events, and situations in their lives. Stress is an unavoidable part of life, regardless of where a person is or what they are doing (National Institute of Mental Health, 2004). Work stress, according to (Agrawal & Chahar, 2007), is an adaptive response to an external condition that causes physical, psychological, and behavioral changes in organizational participants. Stress is a complicated issue that many people misunderstand (Dewe et. Al, 1993) The term "stress" is associated with negative connotation, implying danger and a scarcity of resources. Some situations and people are more likely to experience stress than others. Individuals and organizations alike can suffer from stress, which can make achieving goals difficult (Lupu, 2017). Stress is becoming a more prevalent occurrence among employers and employees. Employees are always worried and suffer stress, therefore workplace stress reactions are not a distinct factor (Dollard et. al, 2003).

Individuals and the organizations where they work are both affected by stress. Extra-organizational stresses, and organization inherent stressors, are both possible causes of work-related stress among employees (Cooper & Bright, 2001). Downsizing, technological advances, affirmative action, retrenchments, restructuring, and job sharing are examples of extra-organizational pressures. Personal and financial issues are other considerations (Fischer, 1994). Factors such as the organization's task characteristics, functioning, career matters, work demands, physical working conditions, equipment, interpersonal relationships, social issues, and subordinates are all examples of organizational stressors ((Dollard et. al, 2003). Individuals in the workplace may react to external and internal stressors in the workplace in a variety of ways (Ayala, 2002). On a physical, psychological, and/or behavioral level, this can happen. "It could emerge as hypertension on a physical level, anger, despair, anxiety, and concern on a psychological level, and/or smoking and drinking, sleeplessness, overeating or undernourishment, weariness, and violence on a behavioral level" (Goldenberg & Waddell, 1990). Not everyone, however, is unable to cope with stressful conditions; in fact, some people seem to thrive in them (Humphrey, 1995). The influence of various causes of stress on an individual is moderated by a number of factors which include Job experience, social support, locus of control, learned helplessness, and problem-solving abilities. Failure to cope with the stressful condition may lead to high staff turnover, increased sick leave and early retirement, lower work performance and a higher rate of accidents, a shift in attitude, decreased motivation, lower client satisfaction, and work withdrawals, all of which can lead to poor decisions and poor work relationships.

Teleworking and Work Stress

The influence of telecommuting on employee performance was investigated by Onyemaechi et al (2018), who were motivated by the changing character of the environment in which our firms operate and the needs of our consumers. The researchers wanted to test if allowing employees to work from home resulted in greater quality work and if enabling them to work at a predefined location resulted in faster service delivery. The goals were achieved by a survey research approach. The analysis of the data was through descriptive statistics as well as the spearman rank correlation coefficient. A weak but positive correlation between allowing employees to work from home and higher job quality was found. It was also shown that allowing employees to work at a defined location has a significant impact on the speed with which services are delivered.

Bhatti et al. (2011) conducted study on the association between job stress and job satisfaction among Pakistani university instructors. Using a basic random procedure, data was obtained from 400 respondents using a cross-sectional method from Pakistan's four provinces. The study looked at the managerial position, relationships with others, workload pressure, homework interface, role ambiguity and performance pressure as drivers of occupational stress. Pakistani state universities make up the sample. There was a substantial association between four of the constructs studied, according to the findings. There was also a substantial negative association between job stress and job satisfaction, according to the findings. It was discovered that 70% of the defective members are dissatisfied with their pay. Their health suffers as a result of their job stress.

Job stress and its impact on health workers at private hospitals in Tiruchirappalli, South India, was the topic of Muthu and Chandru's (2012) study. The researcher gathered primary data for this study by administering a structured questionnaire to health staff in two renowned private hospitals in Tiruchirappalli, Tamilnadu. The sample size is made up of 128 employees from those companies. The respondents were chosen using a simple random sampling procedure utilizing the lottery method. As determinants of occupational stress, the study examined at managerial positions, interpersonal interactions, workload pressure, homework interface, role ambiguity, and performance pressure. The Cronbach's Alpha test was used to measure the reliability of the data collected, and the result was 0.835, suggesting that the data was trustworthy. Workload, depression, superiors, salary, shift timings, and a lack of a clearly defined career ladder were discovered to be some of the elements that

create stress among private hospital health employee.

Figure 1: Conceptual Model



3. RESEARCH METHODOLOGY

Descriptive research design was used in this study. Descriptive research focuses on describing the characteristics of the population or subject under examination (Kurmar, 2011).

The population of the study included all the non-teaching employees at the University of Nairobi and the University of South Eastern Kenya. There were 3289 non-teaching employees in these institutions, who were divided into three cadres namely Senior Administrative Staff (11-15) employees, the middle grades (A-F) and the junior employees (I-IV). Stratified random sampling technique was used to ensure that fair representation in the sampling process. Slovin’s formula was adopted since the target population (N) was known:

$$n = \frac{N}{1 + Ne^2}$$

Where n, is the optimum sample size

N, is the total number of employees at the UoN and SEKU.

e, is the probability of error (95% confidence level).

$$n = \frac{3289}{[1 + 3289(0.005^2)]}$$

This result shows that a sample size of 357 was used.

Data was collected from the non-teaching employees of the University of Nairobi and South Eastern Kenya University. Primary data was collected using questionnaires. The questionnaire was uploaded on Google form. The first section of the questionnaire contained the demographic data of the respondents, the second section contained information about different forms of teleworking, and the third section provided information about work stress. The researchers agreed with the respondents on the most appropriate time to fill and submit the questionnaires to ensure minimal changes on their work schedule.

Data was analyzed through multiple linear regression analysis as guided by the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \alpha$$

Where; Y is Work Stress,

β_0 is Constant Term

$\beta_1, \beta_2, \beta_3$ and β_4 are the Beta coefficients

X_1 = Convenience

X_2 = Decision Making

X_3 = Social Isolation

α = error term

4. DATA ANALYSIS AND RESULTS

The findings and discussions in this section are in line with the objectives of the study. The responses on all the variable statements are derived from the Likert scale based on a 5-point scale with 1 being strongly disagree while 5 is strongly agree.

4.1 Response Rate

The researchers made every effort to reach all the relevant respondents in the various departments at the University of Nairobi and South Eastern Kenya University. A total of 357 questionnaires were administered and 255 questionnaires were returned translating to 71.43% response rate. According to Kothari (2014), a response rate of 50% is adequate, 60% is good and 70% very good for analysis and reporting from manual surveys.

Table 4.1: Questionnaire Response Rate

Number of questionnaires issued	Number of questionnaires returned	Response rate (%)
357	255	71.43%

Source: Research Data (2021)

4.2 Demographic Analysis

The study sought to ascertain the information on the respondents involved in the study with regards to the age, gender, education level, job designation and the number of years they have worked in organisation.

4.2.1 Respondent's gender

In order to understand the respondents' gender, the respondents were asked to indicate their gender. Table 4.2 indicates an analysis of gender.

Table 4.2: Respondent's Gender

Gender	Frequency	Percentage
Male	113	44.31
Female	135	52.94
Blank	7	2.745
Total	255	100

Source: Research Data (2021)

From the table it is evident that 135 out of 255 (52.94%) respondents were Female while 113 (44.31%) were male while 2.75% left the question blank. This implies that majority of the respondents were female.

4.2.2 Marital Status

The respondents' marital status was also sought and the table below is a representation of the status.

Table 4.3 Respondents Marital Status

Marital Status	Frequency	Percentage
Married	133	52.16
Single	93	36.47
Others	29	11.37
TOTAL	255	100

Source: Research Data (2021)

From the table the married represented the biggest percentage of 52.16% while singles were at 36.47% and 11% had indicated other marital status.

4.2.3 Age Group of the Respondents

Respondents age ranges are as shown in Table 4.4.

Table 4.4: Age Group of the Respondents

Age Group	Frequency	Percentage
Up To 34	83	32.55
35 - 44	99	38.82
45 - 54	47	18.43
Above 55	23	9.02
Others	3	1.18
Total	255	100

Source: Research Data (2021)

The results in Table 4.4 revealed that the age group of majorities of the respondents was between 35-44 years at (38.82%), 32.55% represented the age group of 34 and below, 18.43 was for age between 45-54 while 1.17% left this question blank.

4.2.4 Work Experience

The study sought to establish from the respondents, the duration they have served in their respective departments. Study findings are as shown in Table 4.5

Table 4.5: Work Experience

Years of Service	Frequency	Percentage
5 years and below	58	22.75
6 - 10 years	85	33.33
11 - 15 years	49	19.22
16 -20 years	35	13.73
over 20 years	22	8.62
Blank	6	2.35
TOTAL	255	100

Source: Research Data (2021)

The table revealed that majority (33.33%) of the respondents had worked for 6 to 10 years, followed by 22.75% who had 5 years and below experience, 11-15 years had 19.22%, 16-20 years had 13.73%, over 20 years (8.61%) being the minority of respondents while 2.35% chose to skip the question.

4.2.5 Job Designation

The researcher also wanted to know the respondents level in terms of seniority. The table below represents the

information on job designation.

Table 4.6: Grade

Grade	Frequency	Percentage
11 and above	72	28.24
A -F	132	51.76
I - IV	42	16.47
Blank	9	3.53
TOTAL	255	100

Source: Research Data (2021)

From the table above grade A-F had the majority respondents of 51.76% followed by grades 11 and above at 28.24% while I-IV had 16.47% and 3.53% respondents left this question blank.

4.2.6 Academic Qualification

The research sought to understand the level of education for the respondents. Table 4.7 below represents information on the level of education.

Table 4.7: Academic Qualification

Academic Qualification	Frequency	Percentage
Post-Graduate	103	40.39
Under-Graduate	83	32.55
Diploma	39	15.29
Certificate	9	3.53
KCSE	16	6.27
KCPE	1	0.40
Blank	4	1.57
TOTAL	255	100

Source: Research Data (2021)

Majority of the respondents (40.39%) had Postgraduate degrees, 32.55% had Undergraduate degrees, 15.30% had Diplomas, 6.27% had KCSE, 0.40% had KCPE while 1.57% skipped the question.

4.2.7 Type of Engagement

The type of engagement was sought from the respondents and the table below has the information on this.

Table 4.8 Type of Engagement

Academic Qualification	Frequency	Percentage
Permanent	183	71.76
Contract	61	23.92
Casual	6	2.35
Other	5	1.97
TOTAL	255	100

Source: Research Data (2021)

The table revealed that majority (71.76%) of the respondents was on Permanent terms, followed by 23.92% who were on contract, Casuals were 2.35%, while 1.97% were on other terms.

4.2.8 Department

There was a fair representation of Departments respondents coming from Human Resource, Finance, Administration, Procurement, Students Welfare Authority, Dean of Students, Academic Division, Various teaching Departments, Facility Management, Public relations, Legal, ICT, Records Management, Caretaker, Catering, Planning, Audit, Health Service, Transport and Logistics, Marketing and Customer care departments.

4.2.9 Customers

Respondents were required to give information of their main customers. They were free to pick more than one customer. This information is represented in the bar chart below.

Most of the customers served were students at 41.06% followed by Staff who had 33.72% and lastly was General Public at 25.22%.

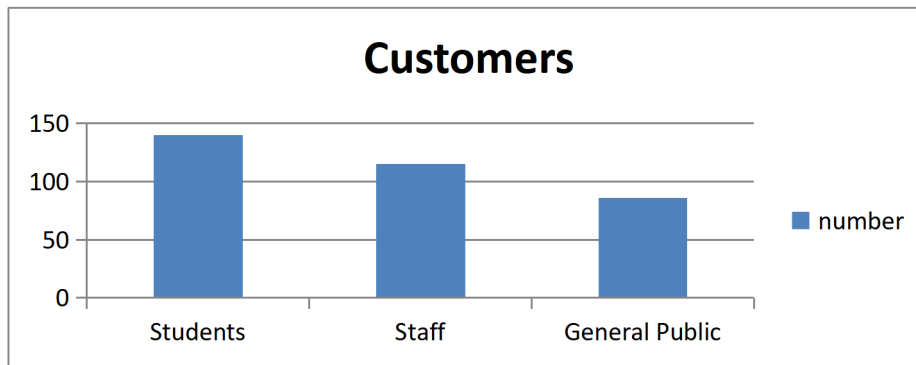


Figure 4. 1: Customers

4.3 Forms of Teleworking

The respondents were requested to indicate the form of teleworking that was majorly relied on. The information is represented in the Bar chart below.

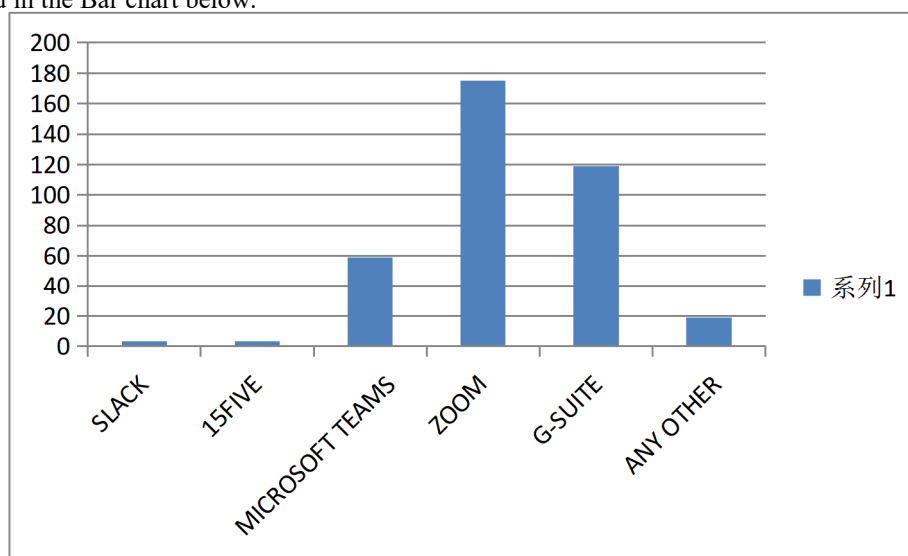


Figure 4.2: Forms of Teleworking

Majority at 46.30% respondents used zoom, 31.48% used G-suite, 15.61% used Microsoft teams, 50.26% used other forms not mentioned in the research while 0.08% used slack and 15five.

4.4 Teleworking

The researcher asked the respondents to answer several questions in relation to teleworking. Respondents were requested to state to what extent they agree with the statements on a scale of: 5- Very great extent, 4- Large extent, 3 - Moderate extent, 2 - Low extent, 1- No extent. The response was analyzed using mean and Standard deviation as shown in the table below.

Table 4.9 Teleworking

Statement	Mean	Std dev
I find it hard to make decisions while working remotely	2.88	2.54
At times I have sleeping problems while working remotely	2.77	2.44
I have a problem with online interactions	2.28	2.11
I find teleworking interesting	4.29	3.87
Teleworking is better than office working	4.01	3.61
Teleworking minimizes the social touch at work place	4.38	3.96
Teleworking is more productive	3.86	3.46
Working remotely is very convenient	4.26	3.85
Teleworking is a cheaper way of organization productivity	4.10	3.67
Teleworking promotes efficiency and productivity	4.01	3.58
OVERAL	3.68	3.31

Source Research Data (2021)

Respondents were moderate with a mean of 2.88 and standard deviation of 2.54 on the statements 'I find it

hard to make decisions while working remotely’, ‘At times I have sleeping problems while working remotely’ had a mean of 2.77 and standard deviation of 2.44. The respondents agreed to low extent on the statement ‘I have a problem with online interactions’ with a mean of 2.28 and a standard deviation of 2.11. The respondents agreed to a large extent with the statements; ‘I find teleworking interesting’ with a mean of 4.29 and standard deviation of 3.87. ‘Teleworking is better than office working’ had a mean of 4.01 and standard deviation of 3.61 while ‘Teleworking is more productive’ had a mean of 3.86 and standard deviation of 3.46. ‘Working remotely is very convenient’ had a mean 4.26 and a standard deviation of 3.85. ‘Teleworking is a cheaper way of organization productivity’ scored a mean of 4.10 and a standard deviation of 3.67 and lastly ‘Teleworking promotes efficiency and productivity’ each with a mean of 4.01 and a standard deviation of 3.58. The respondents agreed to Very great extent with a mean of 4.38 and standard deviation of 3.96 to the statement, ‘Teleworking minimizes the social touch at work place’. The overall mean was 3.68 and the overall standard deviation was 3.31

4.5 Challenges of Teleworking

The major challenge faced was network or internet connectivity. Others included power outage, disruption from other engagements and respecting office time remotely was so hard. Access to documents that were physically filed in registries, collisions of activities to be performed at the same time and lack of social touch were presented as challenges. Noise from the environment, inability to express emotion and keeping time were challenges too. Anxiety of not meeting the standard required, overworking, high cost of purchasing internet was also listed. Lack of Concentration, Lack of clarity of assignment and lack of face-to-face communication were issues facing teleworker. The challenge list also included; technological knowledge, slow consultation with colleagues, lack of equipment, stubborn clients and making administration decision was hard. Timely wastage, unstructured working environment, assumption that people were free all the time, getting feedback from students is time consuming, Headache and too much stress. There was also work related pressure leading to stress, lack of adequate breaks leading to working beyond normal working times, delays in taking action on requests from colleagues or customers and the fact that some positions could not allow remotely working were presented as challenges faced.

4.6 Work Stress

The researcher asked the respondents to answer several questions in relation to work stress. Respondents were requested to state to what extent they agree with the statements on a scale of: 5- Very great extent, 4- Large extent, 3 - Moderate extent, 2 - Low extent, 1- No extent. The response was analyzed using mean and Standard deviation as shown in the table below.

Table 4.10: Work Stress

Statement	Mean	Std dev.
I sometimes experiences muscle tension, nausea, increased heart rate or headache	2.57	2.24
I am forced to be absent from work due to medical issues	2.42	2.13
My working environment and conditions bring about frustration to me	2.47	2.13
I get worked up by small issues	2.36	2.03
Sometimes there is miss understanding between me and my workmates on issues related to work	2.51	2.17
I sometimes can't concentrate on my work	2.41	2.08
I often find myself withdrawn from people	2.41	2.09
Decision making at my work is hard for me	2.51	2.19
The work that is assigned to me is too much	2.45	2.13
I sometimes feel nervous and anxious.	2.48	2.15
My sleeping pattern keep on changing	2.48	2.20
I sometimes lose control because of work related issues	2.41	2.09
I am able to balance my work demands and family demands	3.14	2.84
I always commit more hours to complete assignments given	2.88	2.62
My working condition is rigid and insensitive	2.70	2.38
I have unrealistic deadline which give me stress	2.48	2.17
OVERAL	2.54	2.23

Source Research Data (2021)

On statement, ‘I sometimes experience muscle tension, nausea, increased heart rate or headache’ respondents were affected to low extent with a mean of 2.57 and standard deviation of 2.24. The statement ‘I am forced to be absent from work due to medical issues’ had also a low extent agreement with a mean of 2.42 and standard deviation 2.13. My working environment and conditions bring about frustration to me statement had low extent agreement with a mean of 2.47 and standard deviation of 2.13. The respondent agreed to a low extend to ‘I get worked up by small issues with a mean of 2.36 and standard deviation of 2.03. ‘Sometimes there is miss

understanding between me and my workmates on issues related to work with a mean of 2.51 and standard deviation of 2.17. 'I sometimes can't concentrate on my work' scored a mean of 2.41 and standard deviation of 2.08 while 'I often find myself withdrawn from people' had a mean of 2.41 and a standard deviation of 2.09. Decision making at my work is hard for me had a mean of 2.51 and standard deviation of 2.19. The respondents also agreed to low extent to the statements 'The work that is assigned to me is too much' with a mean of 2.45 and standard deviation of 2.13. 'I sometimes feel nervous and anxious' had a mean of 2.48 and a standard deviation of 2.15 while 'My sleeping pattern keep on changing' scored a mean of 2.48 and standard deviation of 2.20. I sometimes lose control because of work related issues had a mean of 2.41 and standard deviation of 2.09. 'I have unrealistic deadline which give me stress' had a mean of 2.48 and standard deviation of 2.17. The respondents were neutral on 'I always commit more hours to complete assignments given' had a mean of 2.88 and standard deviation of 2.62 while 'My working condition is rigid and insensitive' scored a mean of 2.70 and standard deviation of 2.38. 'I am able to balance my work demands and family demands' had a mean of 3.14 and standard deviation of 2.84.

4.7 Regression Analysis

Model Summary

The study used coefficient of determination to test the percentage of variations on dependent variable predicted by change in independent variables. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable that is explained by all the independent variables.

Table 4.11: Model Summary

<i>Regression Statistics</i>	
Multiple R	0.501598
R Square	0.251601
Adjusted R Square	0.242655
Standard Error	0.903454
Observations	255

Source Research Data (2021)

From the results, correlation coefficient was 0.502 an indication that teleworking has a moderate positive relationship with work stress. The coefficient of determination was $RSquare = 0.252$ shows the predictive power of the model was weak and in this case 25.2% of variations in work stress is explained by teleworking with adjusted coefficient of determination of 0.243. This shows that the teleworking accounts for 24.3% of the variation in work Stress.

ANOVA Results

The study used ANOVA to check how the model fits the data and the results were presented on table 4.12 below.

TABLE 4.12: ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	68.875	22.958	28.127	0.74665
Residual	251	204.873	0.816		
Total	254	273.749			

Source Research Data (2021)

The F value was 28.127 thus the model is statistically significant in predicting how teleworking affects Work Stress.

Regression Coefficients Results

Regression Coefficient results are presented in table 4.13 below.

Table 4.13: Regression Coefficients Results

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.962	0.313	3.067	0.002
Convenience	-0.175	0.130	-1.349	0.179
Decision Making	0.186	0.060	3.094	0.002
Social Isolation	0.311	0.125	2.492	0.013

Source Research Data (2021)

Multiple regression analysis was conducted as to determine the effect of teleworking on work stress. The following regression equation was generated:

$$\text{Work Stress} = 0.961 - 0.175X_1 + 0.186 X_2 + 0.311X_3$$

According to the regression equation established, taking all factors into account (Working remotely is very convenient, I find it hard to make decisions while working remotely and Teleworking minimizes the social touch at work place) constant at zero, Work Stress will be 0.961. The data findings also show that taking all other

factors at zero, a unit increase in teleworking will lead to a 0.175 decrease of work stress. A unit increase in challenges of decision making remotely will lead to a 0.186 increase in work stress and lastly unit increase in social isolation will lead to a 0.311 increase in work stress.

This infers that social isolation contributed most to the work stress followed by the inability to make decisions remotely and Convenience due to Teleworking would decrease the level of work stress.

Discussion and Conclusions

On the regression analysis, the study reveals that the effect of teleworking on work stress was insignificant. Mann & Holdsworth (2003) examined the psychological impact of teleworking: Stress, emotions and health. Results suggested a negative emotional impact of teeworking, particularly in terms of such emotions as loneliness, irritability, worry and guilty and that teleworkers experience significantly more mental health symptoms of stress than office-workers and slight more physical symptoms. Giovanis&Ozdamar (2020) study on implication of COVID-19: The Effect of working from Home on Financial and Mental Well-Being in UK found that those who had not experienced a shift from working at the employers premises to working from home became more concerned about their future financial situation. However, findings also reveal that there was working from home had negative impact on mental well-being.

A study done by Gibs (2021) on working from home and productivity revealed that there was increase in working hours, there was slight decline on average output. Study on working from home – what is the effect on employee effort by Rupietta& Beckmann (2016) revealed that there was a significantly positive influence on work effort. Thorstensson (2020) study on influence of working from home on employee productivity revealed that working from home had an influence on productivity of employees. While influences of some of the factors were either positive or negative. Teodorovicz et. Al (2019) study on working from home during COVID-19: Evidence from tome –use studies shows that the forced transition to working from home created by the COVID pandemic was associated with a drastic reduction in commuting time, and increase in time spend in work and or personal activities. However, this reallocation was heterogeneous across different workers and organizations.

Broadly, the study sought to establish the effect of teleworking on work stress among the non-teaching employees in the public Universities. It was evident that Public Universities were using teleworking as an alternative means of working. However, there seemed to be some departments which teleworking was a challenge due to nature of work. For instance, caretaker Department required employees' physical appearance since their duties such as cleaning could not be remotely done. Teleworking came with its own challenges among them being internet connectivity issues and power outages. Teleworking came with advantages and disadvantages. For instance, employees confirmed that teleworking was convenient and interesting. However, they affirmed that it brought up isolation among the employees.

The study concluded that teleworking had an effect on work stress among the non-teaching employees in the public universities. Teleworking proved to have a negative effect on social life of the employees since it brought about isolation. It was evident that teleworking was a very convenient mode of working thus reducing the stress that comes with commuting. Decision-making was at neutral, meaning that either working from the traditional office or remotely decision-making process would remain the same.

Recommendations and Policy Implications

From the results of the study, the researcher recommends that Public Universities should invest more in improving teleworking that can also drop the work stress level among the non-teaching employees. For instance, the Document held physically in the registries could be stored electronically so that employees could access them remotely hence facilitate and make teleworking easy. Proper work schedule with breaks should be developed to ensure that employees have only one assignment at a time and have time to break. Emphasis should be given to clarity of assignment and expected outcome as the employees work remotely. This would reduce stress.

The Public universities should work on their ICT infrastructure to ensure that employees are well connected since network and internet connection were sighted as the most challenging issue in the teleworking. A proper reporting and feedback teleworking mechanism should be employed to ensure that feedback is received on time to facilitate action taking. Investing in training of staff is also important since it will make employees work with a lot of ease hence less stress as the organization increases the level of production and minimize time wastage. Human being is social animal, so public universities should not do away with face-to-face means of working. Employees need to interact physically and share what they are going through. This in turn reduces stress.

A well-organized way of working would reduce the pressure that comes with teleworking. It is also important to note that delayed action from one employee would lead to process delay since one employees output is input for another employee. So employees are encouraged to check their inbox often when teleworking. Public Universities should also try to adopt flat structures or reduce the levels of the hierarchy. From the study employees experienced rigidity in the decision-making which may be caused by bureaucracy.

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