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## An Examination of Technostress in Contemporary Ghanaian Organizations

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### **Abstract:**

*Businesses need to make the most out of productivity by way of their operations; and providing technology tools help employees get tasks done easier and quickly. ICTs such as the Internet, the advanced wireless technologies and mobile communications networks are becoming increasingly indispensable in many aspects of business and everyday life. To keep up with the fast advancing pace of the new ICTs, employees have to constantly renew their technical skills as well as enduring pressure from a more complex system and higher expectations for productivity. This results in technostress. It is important for Ghanaian organizational stake holders to address the issue of technostress. There are previous works found in literature in the area of technostress but this research looks at technostress in a contemporary Ghanaian organization. The paper will take a look at the extent to which technology is used in Ghanaian organizations in recent times; the factors that cause employee technostress; the factors that influence the level of technostress in employee; the possible effects of technostress on the employee; and mechanisms that can be put in place to mitigate or at least, manage technostress. This research will be an explanatory research. Administrative and operational staff of Agricultural Development bank, University of Applied Management and Legacy Capital Micro finance will constitute the target population of this study. It is expected that, information gathered in this research will positively influence human resource and IT policy making and implementation.*

**Keywords:** *technostress, technology, productivity*

### **1. Introduction**

Brady and Elkner (2011) assert that, Information technology has been around for a long, long time. Basically, as long as people have been around, information technology has been around because there were always ways of communicating through technology available at that point in time. Technology has been through the pre-mechanical age, the mechanical age (during which new technologies like the slide rule, the Pascaline computer and the difference engine were all invented), the electromechanical age (between 1840 and 1940 where the telegraph, Morse code and the telephone, the first radio and first large-scale automatic digital computer in the United States were created). Now, we are in the Electronic or digital age; also known as the information age. According to Schwab (2015), the Information Age (also known as the Computer Age, Digital Age, or New Media Age) spans from the middle of the last century to date. He states that "this period is characterized by the shift from traditional industry that the industrial revolution brought through industrialization, to an economy based on information computerization. The onset of the Information Age is associated with the Digital Revolution, just as the Industrial Revolution marked the onset of the Industrial Age".

Schwab (2015), further explains that, we are living in a period in which a large amount of information Television broadcasts, text messages, photographs, news reports, emails etc. is produced, communicated and stored in digital format every day; and the possibilities of billions of people connected by mobile devices, with unprecedented processing power, storage capacity, and access to knowledge, are unlimited. To Schwab, these possibilities will be multiplied by emerging technology breakthroughs in fields such as artificial intelligence, robotics, the Internet of Things, autonomous vehicles, 3-D printing, nanotechnology, biotechnology, materials science, energy storage, and quantum computing.

According to *Kooser* (2016), businesses need to make the most out of productivity by way of their operations; and providing technology tools help employees get tasks done easier and quickly. *Gilikin* (2016) explains that, Productivity is simply the amount of units of a product or service that an employee handles in a defined time frame. For example, an employee who makes widgets might make 20 widgets per hour, or an employee at a coffee shop might service 15 customers per hour. To *Gilikin*, simple productivity is neither good nor bad, and in-service industries, it might vary according to factors beyond the employee's control, like the number of customers who present for service. He opines that, Productivity is the basic measure of employee work output.

Per research undertaken by national business Research institute in 2016, the following are the five main factors that affect employee's productivity: First is Employee's attitude. Happy employees are productive employees. An employee with a positive attitude usually enjoys the work that they do and feels empowered and recognized for their contributions. An employee that is complacent and does not really enjoy their work, but is simply there for a paycheck usually does not produce at a high level, develops a bad attitude and generally drags a team down. Second is the Boss. A recent poll found that, among other things, an employee's productivity is determined by their relationship with their immediate supervisor. When the bad boss fails to keep promises, never gives credit when due, makes negative comments, or blames others for their mistakes, the productivity level of their employees is significantly impacted. Third is Health issues. Health concerns, naturally, are a big drain on an employee's ability to be productive. Forth is Tech Tools. All the feel-good, psychological methods of improving employee productivity are great, but they are useless without the right tools. And the right tools mean the right technology. For an employee to be efficient and productive in contemporary job environment means equipping employees with the right gear. Companies that do not upgrade or ignore the necessity for tech tools like PCs, Blackberries, cell phones and other 21st century tools, run the risk of diminished employee productivity. The fifth and final factor that affects employee productivity is Downsizing and Outsourcing Morale. Some companies try to save cost by downsizing expensive labor while outsourcing a cheaper version. For employees remaining in those offices and factories, their morale and motivation can take a big hit. In most cases, employers fail to recognize that if they downsize or outsource, they need to provide support to the employees that remain. The psychological impact on employees can directly impact productivity, forcing many to focus on their second careers instead of the job at hand".

*Kooser* (2016) is of the view that, Helpful Technological tools that help increase employee productivity may range from practicing e-marketing (everything ranging from a website, email adverts to text messaging and developing apps), providing customer service (use email to answer questions, offer online chat to help customers that are visiting the business website, and equip call centers with the latest phone equipment that makes customer service agents more efficient) to offering top notch communication technology (smart phones, laptops, web cams, internet, email, online collaboration tools and mobile computing devices, etc.) by which workers can share digital documents there by making telecommuting and teleconferencing for example, easier.

Using technology in general and at the work place however, does not come without its demerits. According to *Markovich* (2016), "having cutting-edge technology is an ongoing expense. There are initial purchasing costs, as well as ongoing maintenance, updates and training expenses. Should a system failure occur, loss of revenue can result due to loss of services rendered or product production halted".

*Markovich* (ibid) also states that, security wise, there is a risk of cybercrime when utilizing technology. A business using technology may run the risk of financial fraud, loss due to computer viruses, system penetration by outsiders, confidential data theft, mobile hardware theft and abuse of email or Internet privileges. To him, another disadvantage for such technologically inclined organizations is Disconnectedness on the part of employees. With technology playing such a large role in the workplace, people have become disconnected from final products and each other. Job tasks are often delineated; therefore, fewer people are a part of the final creation. This can lead to dissatisfaction or workplace boredom. In addition to this, as more employees utilize technology in everyday communication, messages are being misunderstood, often making workers appear rude. People reading email, texts or instant messages, for instance, cannot accurately measure tone or utilize body language as points of reference. However, venues such as video conferencing eliminated some communication obstacles.

Again, he asserts that the last and perhaps the worst disadvantage of using technology in the work place is Distractions. Apart from issues ceasing work production such as system failures, interruptions can include email and instant messages. There are other forms of technology vying for employee time including online games, music and videos and these distractions certainly have negative effects on employee productivity ".

According to *Tarafdar, D'Arcy, Turel and Gupta* (2014), information technology has long been viewed as an evolving set of tools that has made workers much more productive than ever before. They state that, a number of studies have found that companies that use more IT have higher productivity than their competitors. To them however, we may be entering an era in which human frailties begin to slow down progress from digital technologies. This brings us to the issue of technostress which is another downside of technology use at the work place. *Salanova, Llorens, and Ventura* (2014) define technostress as a negative psychological response to the use (and abuse) of technologies, as well as the harmful effects of the implementation of technologies within the workplace. In a series of studies, *Tarafdar et al* (ibid) explore the implications of IT-induced technology stress, technology addiction and IT misuse in the workplace. One implication of their findings is that the very qualities that make IT useful; reliability, portability, user-friendliness and fast processing; may also be undermining employee productivity, innovation and well-being. *Tarafdar et al* (ibid) after observing a number of organizations, found that this rapidly emerging "dark side" of IT hurts employees and their organizations and robs companies of some of the productivity gains they expect from their IT investments. In their article titled *The Dark Side of Information Technology* (2014), they assert that, pervasive and near-continual use of organizational IT systems is now beginning to take a toll on some employees' health. They found that, Individuals experience "IT use-induced stress" or "technostress" for a number of reasons: First of all, they feel forced to multitask rapidly on simultaneous streams of information from different devices simply because

information feeds come at them in real time; remote work and flex-time tether them around the clock to their devices and workplaces; and short technology cycles and pressures from IT vendors mean constantly changing interfaces, screens and functionalities, often without sufficient FAQs and help-desk support. Secondly, complex user interfaces that do not naturally fit with task workflows are an additional source of stress, because they create work overload when they are used. Tarafdar et al (2014) finally state that, their findings reveal that, the more enthusiastically and relentlessly organizations embrace IT, the more technostress increases as well. This research paper seeks to undertake an overview of how technology influences employee productivity and how the use of technology leads to technostress per the literature.

### *1.1. Problem Statement*

According to Tarafdar, Tu and Ragu-Nathan (2010), organizational use of information and communications technologies (ICT) is increasingly resulting in negative cognitions in individuals, such as information overload and interruptions. They state that, recent literature (an example is “**On the biology of technostress: literature review and research agenda**”; a research by René Riedl (2013) has encapsulated these cognitions in the concept of technostress, which is stress caused by an inability to cope with the demands of organizational computer.

The present study argues that, using technology to enhance work and increase business performance in itself is not a problem. However, the discomfort and stress that comes with employees adjusting to new unfamiliar technological devices and its accompanying software and processes is the issue. Is the time period employees’ use on a regular basis to adjust to new technology not a cost to organizations in terms of productivity? Again, with the resulting stress on employees from new technology adjustment, interruptions and information overload, are employees willing and able to give off their best in terms of output?

It is important for organizational stake holders to address the issue of technostress. It has serious implications on employee job satisfaction, performance and motivation. In their research titled “Impact of Technostress on End-User Satisfaction and Performance” conducted in 2010, Tarafdar, Tu and Ragu-Nathan found out that technostress has negative effects on employee satisfaction and their performance. The impact technostress has on (overall) employee productivity is however the gap or area this research seeks to fill and/or throw more light on.

This paper contributes to emerging literature on negative outcomes of Technology use by highlighting the influence of technostress on users’ performance. The research extends the literature on technostress, which has so far looked largely at the general behavioral and psychological domains, to include the domain of end-user outcomes. Specifically, the research takes a look at how technostress influence employee productivity.

### *1.2. Objectives of the Study*

The broad and main objective of this study is to examine technostress and employee productivity. This broad objective can be subdivided into the following specific objectives:

1. To look at the extent to which technology is used in Ghanaian organizations in recent times.
2. To ascertain the factors that cause employee technostress.
3. To determine the factors that influence the level of technostress in employee.
4. To find out the possible effects of technostress on the employee.
5. To identify mechanisms that can be put in place to mitigate or at least, manage technostress.

## **2. Literature Review**

The theory underpinning this research into the effect of technostress on employee productivity is titled “Theorizing Technostress in Organizations: A Cybernetic Approach”. This theory was propounded by Thomas Fischer and René Ried in 2014. In their paper, they report the outcome of a research project which has the goal to develop a theoretical framework that makes it possible to gain an advanced understanding of employees’ perceptions of technostress in organizations. They argue that such a framework is urgently needed, because empiricism has far outstripped theory-building in the field of technostress. In the course of analyzing theories of stress used in organizational research, Fischer and Ried identified cybernetics as a potentially fruitful theoretical lens through which technostress in organizations can be studied. Specifically, they merged two major stress models based on cybernetics and integrated findings from previous technostress research into this unified framework. This new framework aims to advance the understanding of technostress in organizations. Amazingly, after analyzing previous research on technostress on an organizational level, the writers could not find any papers using a cybernetic approach. This finding indicates a significant gap in technostress research, because the cybernetic approach has been identified as useful in organizational stress research in general (e.g. Cummings and Cooper 1979; Edwards 1992).

According to Fischer and Ried, the effects of ICT usage indicate that technology is a double-edged sword, leading to significant benefits on the one hand, but also to technostress and its detrimental effects on the other hand (e.g. employee’s poor health). Accordingly, there is a need for more technostress research on an organizational level, which in the past has often been abandoned in favor of laboratory studies that have an explicit focus on the specific aspects of technostress on the individual level of analysis (Riedl 2013). However, while laboratory experiments are necessary to establish specific cause-effect-relationships (e.g. Does computer breakdown lead to stress hormone elevations?), such studies cannot comprehensively capture the phenomenon. Rather, only very specific aspects can be studied, neglecting that technostress is a multidimensional and context-dependent phenomenon. Consequently, technostress cannot be conceptualized as a phenomenon originating exclusively in the individual or the environment, but arising from interplay of both factors.

To them, this change of understanding in stress research has seen a long development since Selye's first publication on stress in 1936 (Selye 1936) which is also the first response-based approach to stress. Response-based means that stress is understood as the outcome of certain stressors in the environment disrupting the individual, and hence stress is conceptualized as the dependent variable (Edwards 1992; Cooper et al. 2001; Sonnentag and Frese 2013). In contrast, stimulus-based models present the opposite, defining stress as some force in the environment leading to certain reactions in the individual (Edwards 1992; Cooper et al. 2001). More modern approaches abandoned this thought of stress being located in either the individual or the environment.

To the writers, Technostress is a multi-dimensional construct (Ragu-Nathan et al. 2008), involving both psychological as well as biological processes in the individual (Riedl 2013). Moreover, when using models of stress based on cybernetic principles to conduct research on technostress, subjective perceptions and especially individual's desires play a major role in the occurrence of stress (e.g. Cummings and Cooper 1979; Edwards 1992). Yet, not only individual aspects are involved in the stress development, but also aspects of the environment which are perceived by the individual. Consequently, creating a comprehensive understanding of technostress is hardly possible by one type of data set alone, but requires a mixed method approach, focusing on all major components of the individual and the environment involved. And this was the method adopted by the writers after analyzing previous research and finding out that such a cybernetic approach, presumably due to its high level of complexity, has rarely been used so far.

By way of strengths of the cybernetic approach, Fischer and Ried found that, in contrast to Transactional Theory, cybernetic approaches to organizational stress more explicitly focus on the subjective occurrence of stress by involving the discrepancy between desires and perceptions (e.g. Cummings and Cooper 1979; Edwards 1992) instead of demands and resources/abilities (Lazarus and Folkman 1984). Edwards (1992) explicitly cited this difference in orientation as strength of cybernetic approaches, as an individual's desires determine whether an outside demand is perceived as important (therefore having higher impact) or not. Following these remarks, cybernetic approaches to organizational stress promise to offer some benefits from a theoretical point of view, and could thus be seen as a viable alternative to theories used so far in technostress research.

No organization can do without technology in our current century and dispensation. In an era of technological innovation, ICT and other forms of technology form an essential part of an organization regardless of the line of business; be it service oriented, production, retail, etc. some level of technology is need for a business and an organization for that matter to be functional.

Employee productivity (sometimes referred to as workforce productivity) is an assessment of the efficiency of a worker or group of workers. Productivity may be evaluated in terms of the output of an employee in a specific period of time. Typically, the productivity of a given worker will be assessed relative to an average for employees doing similar work. Because much of the success of any organization relies upon the productivity of its workforce, employee productivity is an important consideration for businesses (Definition: Employee productivity; Rouse; 2014)

According to Brynjolfsson and Yang (1996), initially, the relationship between information technology (IT) and productivity was a source of debate but more recently, as new data are identified and more sophisticated methodologies are applied, several researchers have found evidence that IT is associated with improvement in productivity and economic growth.

In my opinion, technology these days has been inculcated into all aspects and functions in organizations, resulting in a rippling effect where every aspect of a business, from communication and correspondence to production, distribution and service provision, etc. becomes easier and accelerated. Narrowing it down, the use of technology by managers and employees alike to communicate, manage tasks and in actual execution of work, cuts down on time wastage and speeds up work thereby increasing employee productivity.

The constant use of technology however, also comes with its demerits and side effects. Notable among these is the issue of technostress. The clinical definition of technostress comes from Craig Brod, a leader in research on technostress. He defines technostress as a modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner (technostress: the human cost of the computer revolution; 1984). Technostress among may result from inadequate training in ICT skills, multiple and constant interruptions from phone and emails, lack of employee involvement in planning ICT policies and lack of inept planning and implementation of ICT policies on the part of management. In this research work, the technostress phenomenon is the independent variable. To me, employees are effective and productive with technological support until technostress sets in; then, productivity starts to diminish. The diagram below best demonstrates this phenomenon and forms the whole conceptual idea behind this research paper.

A number of researchers also identified a gap in the literature and addressed it; this gap being the actual causes of technostress and the factors that influence technostress levels (see Ragu-nathan, Tarafdar, Ragu-nathan and Tu2008; Ahmad, Amin & Ismail 2009; Rajput, Gupta, Kesharwani & Ralli, 2011; Odoh, Odigbo and Onwumere, 2013).

Due to the indispensable role technology plays in today's modern work-place, lots of researches have been undertaken to look at ways by which technostress and its effects can be managed in organizations in order to encourage use of technology and increase productivity (for example Poole & Denny, 2013; Poole & Denny, 2001; oluwole, 2013)

### 3. Research Methodology

This research is an explanatory research, the purpose of which is to assess the effect of technostress on the employee productivity levels.

Administrative and operational staff are the target population for this research. To be precise, managers, administrative officers and assistants, office managers, secretaries and receptionists, back officers, customer service officers and branch and operations managers of these three firms; Agricultural Development bank, University of Applied Management and Legacy Capital Micro finance; constituted the target population of this study. The study focusses on both managerial and non-managerial staff at typical Ghanaian institutions within different areas of business or industry sectors but with one thing in common; the use of technology by

administrative and operational staff. More so, estimated population size for the study is 230 people. The samples of this research include administrative and operational staff and managers of Legacy Capital, Agricultural Development Bank and University of Applied Management. More so, only a few branches of these firms located in Accra are included. Simple random sampling is the statistical tool used. The estimated population of this research is 230 as stated initially in this research paper. Generalization is on a sample size of 145 respondents. Sample size is calculated with the Raosoft sample size calculator; with a 5% margin of error, confident level of 95% and 50% response distribution. The sampling technique employed is non-probability sampling. Thus, convenience sampling technique is used to conduct this study; primarily, questionnaires are administered and in-depth interviews conducted where appropriate to solicit for the needed information from respondents who are available and willing to assist.

The main instrument used for data collection is the questionnaire. Simple and straight forward questionnaires containing closed and open-ended questions are administered. The questions are presented to the respondents in written (typed) form and respondents can express their views by responding to the items stated in the questionnaire. The data after being collected is analysed with the help of Descriptive statistic as a statistical tool to draw inference from the data gathered. The outcome was presented in the narrative form.

## 4. Results and Discussion

### 4.1. Demographic Profile of Respondents

The first part of the questionnaire covered the respondents' age, sex, marital status, educational background and nature of job role. Though not central to the study, the personal data helped contextualise the findings and the formulation of appropriate recommendations to enable managers determine how technostress can be managed for example among managers and within a certain age range.

The age range categories provided in the survey were; 25-30, 31-35, 36-45 and 46-60. None of the respondents fell within ages 36 to 45 years. Respondents between the ages of 46-60 years form only 4.1% representing the minority. Respondents who fall within the age range of 31-35 years form 26.9% while respondents falling within the age range of 25-30 form the majority as indicated by 69%. The male representation in this survey form 58.6% and the female form 41.4%. Three categories were provided in the questionnaire in reference to the respondents' marital status; namely, single, married and divorced. None of the respondents was divorced. Most of the respondents are single, this was observed with a frequency of 115 and percentage of 79.3. While the remaining 20.7 happen to be married. Out of the 145 respondents only 6 have an HND, representing 4.1%. 109 of them, representing 75.2% have a degree and the remaining 30 respondents (representing 20.7% of the sample population) have a masters' degree. Further it was observed that, 44.1% of respondents occupy managerial roles in their various institutions and departments or branches, while the remaining 55.9% are non-managerial staff.

### 4.2. Analysis of Research Questions

#### 4.2.1. Research question one: To what extent do Ghanaian organizations use technology in recent times?

In this section of the questionnaire, six questions were asked in order to ascertain if technology is used in the respondents' workplace and if so the extent to which technology is used. To the first five questions posed, respondents were provided two answers to choose from, "yes" and "no". For the 6<sup>th</sup> question, respondents were asked to use the Linkert scale to express their sentiments. The scale ranged from 1 to 5; where 1 meant not at all, 2 meant not very much, 3 meant moderate, 4 meant above moderate and very much. Sixty-seven (67) out of the 145 respondents (representing 46.2%) answered "yes", to the question "Does your company make use of automated doors or entrances that verify your identity biometrically before granting access?"; while the remaining 78 respondents (representing 53.8%) answered "no".

To the question "Does your firm make use of a check-in system where you digitally clock in and out before after your working day?", 88 (60.7%) out of the 145 respondents answered "yes", while the remaining 57 respondents (representing 39.3%) answered "no". 115 (79.3%) of the respondents answered in the affirmative to the question "Does your institution run its day to day operations with the aid of a computerized system with a standard software package?"; while the remaining 30 (representing 20.7%) respondents did the opposite.

To the enquiry "Does communication and research in your firm involve the use of an email system and the internet?" 133 of the respondents (representing a 91.7% majority) indicated that their firms make use of the internet and an email system for research and communication. The remaining 12 participants (8.3% minority) indicated otherwise. 139 (95.9%) of the respondents indicate that their job routine does involve high use of telephones and mobile phones; while only 6 respondents (4.1%) answered in the negative.

Respondents were further tasked to rate the extent of technology use in their daily job routine using a Linkert scale ranging from 1 to 5. No respondent chose 1 (indicating absolutely no use of technology). 12 respondents (8.3%) said they don't use technology much (they rated 2). 17 (11.7%) indicated a moderate use in technology (they rated 3). 22 respondents (15.2%) indicated their daily use of technology at work to be above moderate (they rated 4). And 94 respondents (representing 64.8%) indicated that they use technology very much in their daily job routine (they rated 5).

#### 4.2.2. Research question two: What are the factors that cause technostress in employees?

The factors that cause technostress are categorised into two in this section of the questionnaire; namely, individual factors and organizational factors. Three statements and seven other statements are made under the two categories respectively; totaling 9 statements in all for the section. Respondents are asked to use the Linkert scale to express their sentiments. The scale ranges from 1 to

5, where 1 represents strongly disagreed, 2 represents disagreed, 3 represents neither agreed nor disagreed, 4 represents agreed and 5 represents strongly agreed. Aside the 9 statements given, respondents were given a slot where they state in their own words, any other factors they believe cause employee technostress.

To the statement “My job role requires multitasking on a regular basis (individual factors)”, six (6) respondents disagreed, only one respondent is neutral and 138 respondents (forming 95.2%) agreed.

To the statement “I am sometimes overwhelmed by constant email and phone interruptions which have to be managed while performing my designated job functions”, 18 respondents indicated that they disagreed. 12 respondents indicated that they neither agreed nor disagreed. 115 respondents (79.3%). This implies that a majority of the respondents agreed with the above statement.

To the last statement to ascertain the individual factors that cause technostress; “It takes a period of adjustment to get used to the frequent change in technology (phones, computers and their accompanying software, etc.) thus leading to stress and lapses in my work flow”; 48 respondents (33.1%) disagreed. 28 respondents (19.3%) neither agreed nor disagreed. 69 respondents (47.5%) agreed with the statement.

The statement “Thanks to technology, my work sometimes extends into my home”, was made to ascertain the organizational factors that cause employee technostress. 12 respondents disagreed to it. 6 respondents say they neither agreed nor disagreed. 127 respondents agreed with the statement. From the data observed, it becomes apparent that majority (87.6%) of the respondents agreed with the above statement, while the remaining 12.4% think otherwise.

Again, “I feel threatened by new employees who are more experienced with technology”, is another statement made to ascertain the organizational factors that influence employee technostress. 102 respondents (70.4%) disagreed to this statement. 15 respondents (10.3%) neither agreed nor disagreed. 28 respondents (19.3%) agreed.

The statement “Because of the availability of technological aid, I am often given job tasks with unrealistic deadlines”, also falls under organizational factors that cause technostress. To this statement, 24 respondents disagreed. 18 respondents neither agreed nor disagreed. 103 respondents agreed. It was observed that a large number of respondents (103 participants forming 71%) align with this sentiment.

Still under organizational factors that cause technostress; 76 respondents disagreed, A total of 39 respondents neither agreed nor disagreed, 30 respondents agreed; to the statement that “The constant upgrades in technological systems at work creates uncertainty as it makes it difficult to develop solid tech skills”. From the data presented it appears the larger portion of respondents (76 respondents forming 52.4%) do not agree with the above statement.

The last but one statement made to ascertain the organizational factors that cause employee technostress is “Network interruptions could be stressful”. To this statement, 21 respondents disagreed. No respondent neither agreed nor disagreed. 124 respondents agreed. From the data, it was observed that most of the respondents (85.5%) align with this sentiment.

The final statement in the series to ascertain the organizational factors that cause employee technostress is “Constant freezing of computers especially when I have to meet a deadline could be very stressful”. 27 respondents disagreed with the statement. No respondent neither agreed nor disagreed. 118 respondents agreed. The data also shows that 81.3% of the respondents align with this sentiment.

When asked to state work place scenarios and situations that leave employees technostressed. Varied responses were elicited. Below are some causes of technostress according to the survey participants.

First is the fact that some computer instructions (from manuals) are abstract and incomprehensible. This makes it difficult to understand and apply the content and intents of such computer information booklets. The result is that users (employees) have difficulty in setting up these devices for use. Again, employees have no basic knowledge on how their computers and its accompanying devices work and as such have to fall on IT support staff at the slightest hint of any system issues.

The second cause of technostress sighted by respondents is the issue of bad System quality. Some brand of Computers, mobile phones and some other tech equipment have low quality system quality. By this they mean that, these devices have very small storage space, slow running software and unfriendly user interfaces; as such, they cause employee technostress as the use of these tech items prove tedious.

The third cause of technostress according to the survey participants is System down time. This refers to the period when the bank or institution’s internal software, system or intranet which forms the spine of its basic operations is terribly slow or non-operational or not functioning all. A number of factors can cause system down time but it usually occurs during peak time or season which for banks and other financial institutions, happens to be end of month and salary paying season when the system is in high use and as such over-burdened. System down time leads to customer agitation and creation of work backlog when system resumes operation. This subsequently leads to employees having to work longer hours than usually required. Having to deal with all the above alongside emails and phone calls all in an extended day is enough to cause technostress.

The fourth cause of technostress respondents gave was frequent changes in job schedules. This is common in banks and financial institutions (especially for employees at the branch). This refers to the instance in which the role or designation of employees are changed often right after they have mastered the job tasks and tech know-how accompanying a particular job description. The merit here is, such employees become all-rounders who are able to multi-fit and cover up whenever the organization is short of personnel. The negative result though, is that, employees may take a period of adjustment before they begin to perform. Picking up a whole new skill set, especially tech know-how can be stressful. Again, such employees may lack confidence in general tech know-how because, they never get to fully master the prerequisite technological skill set that accompanies one area of work, before they are reassigned.

The fifth cause of technostress according to respondents is, working with computers and other tech devices for long hours and over-time. As is to be expected with any other job, tech related or not, long working hours can be stressful. Workers therefore feel that long working hours coupled with the use of technology only heighten the level of stress.

Another cause of technostress according to respondents is poor or bad internet connections and malfunctioning computers and other tech equipment. In a typical Ghanaian financial institution or even a private university, computers are relied on for the basic day to day operation of the firm and email systems aid in rapid correspondence. Therefore, a bad internet connection and/or malfunctioning computers will lead to delayed correspondence, inability to work and ultimately creation of backlog for the next working day. This consequently leads to technostress.

Again, Power failure is sited as another cause of technostress by respondents. For organizations with no alternate source of power, Power cuts mean inability to work and backlog creation until power is restored. For institutions with alternate sources of power, power cuts still cause temporary disruptions in operations in general and tech operations specifically. Both instances are a source of technostress.

The final cause of technostress as sited by survey participants is lack of training (little or no training) on how to use new software. Software systems are updated from time to time and some employees complain that they either get little training or are expected to familiarize with new interfaces on their own. Both instances lead to technostress, as workers struggles with the new software for a while before getting acquainted fully and maximizing its potential job wise.

#### 4.2.3. Research question three: What are the factors that influence employee technostress levels?

In this section, respondents were presented with a set of 4 statements. Respondents were to express their sentiments by responding “true” or “false” to these statements.

To the statement “Management of my organization do not provide efficient training when new technology is introduced. This leads to increased technostress levels.” 75 respondents (51.7%) think the above statement is true, while the remaining 70 (48.3%) think it is false.

133 respondents (91.7%) believed that the statement “My job tasks necessitate the use of technology. If computers and other equipment provided are obsolete, it increases my technostress levels “, is true. While the remaining 12 (8.3%) think it is false.

139 respondents representing a 95.9% majority think the statement “Bad internet connections which affect work and correspondence also leads to increased technostress levels”, is true. While the remaining 6 (4.1%) think the statement to be false.

103 respondents (a 71.0% majority) think the statement “Thanks to technology, work spews into my home. This increases technostress as a result of lack of balance between my work and my life” to be true while the remaining 42 (29.0%) think it to be false.

#### 4.2.4. Research question four: What is the impact of technostress on employee productivity?

In this section of the survey, five statements were made, with the aim of finding out the possible effects that technostress has on the employee. To each statement made, respondents were asked to indicate their opinions with the help of a 5-point Linkert scale. Participants were asked to choose from 1 to 5, the sentiment that best suit them; where 1 means strongly disagreed, 2 means disagreed, 3 means neither agreed nor disagreed, 4 means agreed and 5 means strongly agreed. Aside the 5 statements given, respondents were given a slot where they state in their own words, any other effects of employee technostress they happen to know.

To the statement “The stress that comes from blurring of work home boundaries due to technology leads to poor decision making”, 24 respondents disagreed; 30 respondents neither agreed nor disagreed. 91 respondents agreed. It was further observed that 62.7% of the respondents agreed with the statement, while the remaining 37.3% do not.

To the statement “Some employees who are unable to cope with technology and its accompanying stress feel dissatisfied with their jobs”, 18 respondents disagreed. 12 respondents neither agreed nor disagreed. 115 respondents agreed and. From the analysis, the data shows that 79.3% of the respondents agreed with the above statement, while the remaining 20.7% do not.

To this statement “Some employees who are unable to cope with technology and its accompanying stress show less commitment to their jobs and are more likely to be involved in absenteeism.” 24 respondents disagreed. 27 respondents, neither agreed nor disagreed and 94 respondents agreed. The data observed shows that 64.8% of the participants agreed with the above statement, while the remaining 35.2% believed otherwise.

The sentiments of respondents to the statement “Employees who experience technostress are usually less innovative and productive “, are as follows: 6 respondents disagreed. 12 respondents neither agreed not disagreed and 127 respondents agreed. From the observed data, it appears 87.5% of the participants agreed with the above statement; while the remaining 15% feel otherwise.

To the statement “Some employees who get technostressed end up experiencing psychological strains emotional reactions to stressor conditions such as depression, and negative self-evaluation”, 6 respondents disagreed. Thirty (30) respondents neither agreed nor disagreed. 109 respondents agreed. From the findings, the data observed shows that 75.2% of the participants agreed with the statement in question; while the remaining 24.8% do not.

#### 4.2.5. Further, when respondents were tasked to indicate the possible effect of technostress on employees’ performance, below are the observed responses:

First of all, according to participants, technostress leads to bad performance and low employee productivity. From the previous responses from respondents, it becomes apparent that technostressed employees are less innovative, dissatisfied with their jobs and likely to make bad decisions. These in effect will definitely lead to low productivity.

Secondly, respondents state that technostress makes the process of employee rotation/ reassigning slow and tedious. In banks especially and other institutions, employees in different designations use different features or aspects of the same common software. Again, for every job role assigned and in each department, there may be different set of IT tools to assist with job tasks. This means for every job rotation assignment, an employee takes some time to be oriented, get acquainted and adjust to the new way of doing things; new IT requirements inclusive. The stress accompanying these changes doesn't make the transition process particularly easy.

The third effect of technostress per respondents is that, technostress affects employee motivation. An unsatisfied employee is an unhappy employee. An unhappy employee feels no motivation to give his/her best.

The final effect of technostress given by survey participants is that, technostress like any other form of stress leads to a number of health issues. Respondents sight instances where they suffered headaches, muscle tension or pain, fatigue and sleep problems and reported to the hospital only to be diagnosed with stress.

#### 4.2.6. Research question five: What are some of the measures that can be put in place to mitigate or at least manage technostress?

In this section, survey participants are presented with six statements and asked to rate each statement using a Linkert scale. Respondents are to indicate by ticking the option that suits them. Options range from 1-5 where, 1 means Strongly disagreed, 2 means Disagreed, 3 means Neither Agreed nor disagreed, 4 means Agreed and 5 means Strongly Agreed.

To the statement "Taking 'digital naps' in the course of the working day will allow us to **disconnect** for a while and keep from feeling stressed", 12 respondents disagreed. 27 respondents neither agreed nor disagreed. 106 respondents agreed. It was further observed that, 73.1% of the respondents (forming a majority) agreed with the statement, 18.8% are neutral and only the remaining 8.3% disagreed.

In response to the statement "If managers spot training needs and run courses which make the learning process will be more personal and help us acquire **new skills**, we will get rid of stress and anxiety more easily ", 6 respondents (4.1%) neither agreed nor disagreed. 139 respondents (95.9%) agreed to the statement.

It was further observed that, 6 respondents disagreed to the statement, "**Better time** management skills will help employees conciliate their professional and personal lives". 4 respondents neither agreed nor disagreed. 135 respondents (forming the majority) agreed with the statement.

Furthermore, with regards to the statement "Having a clear policy in place about use of the internet and limitations on working hours is essential". Respondents neither agreed nor disagreed. 140 respondents (a 96.4% majority) agreed with the statement.

Six (6) respondents (forming 4.1%) neither agreed nor disagreed with the statement "Prohibiting work on public holidays and weekends and also evening work from home would be helpful to employees ". 139 respondents (95.8%) agreed with the statement.

It was further observed that 28 respondents (19.3%) neither agreed nor disagreed with the statement that, "IT restrictions should be put in place that not only prevents unauthorized use of certain sites, such as social media, but limits the times and locations from which an individual can work ". 117 respondents (80.7%) agreed.

Further, when asked what in their opinion are some mechanisms that can be used to mitigate or at least, manage technostress, these are the suggestions respondents offered:

Firstly, there should be effective and constant training programs to familiarize workers prior to the introduction of new technology. Respondents are of the view that, if employees are introduced to new equipment and given ample training to acquaint with new software well before these technological tools are rolled out to be used regularly at the work place; it will reduce the level of technostress employees would experience.

Secondly, Top management should lean in and support in stress management. Respondents feel that, technostress and stress management in general should not only be a concern for the human resource managers and departments; top management who constitute policy makers should be part of the entire stress management process. From making policies that benefit the employees, to contributing to the successful implementation of these policies in whatever ways they can.

Thirdly, Employees need education on better time management skills. As part of stress management policies, employees should be given information and tools and applications such as reminders that will help them plan and manage their work days effectively in order to avoid unnecessary overtime work that lead to stress in general and technostress in particular.

Fourthly, Managers should ensure that employees do not work over-time. This can be in the form of policies to that effect. Employees on their part should comply with these policies and avoid working over-time in order to avoid technostress and stress in general.

In addition, respondents were again asked to suggest what individual employees could do, in their opinion, to manage technostress. Below are the suggestions respondents had to offer:

Firstly, respondents suggest that, Individuals should be prepared to learn and upgrade with IT skills that come with new technology introduced by their firms. Employees should also be willing to update their technological skills constantly. That is, aside the training institutions provide, individuals should themselves have a sense of initiative and try to be abreast with new technology and develop the accompanying tech skill sets.

Secondly, respondents feel that, workers or individuals should avoid taking their work home. Instead they should enjoy their weekends and holidays and not only take but make good use of annual leave or vacation period. Individuals should enjoy family time and engage in hobbies to destress.

Thirdly, respondents suggest that, employees themselves should practice good time management skills and ensure that they take shorts breaks every now and then in the course of their 8hour working day.

Finally, in the final section of the survey, respondents are asked to suggest what they think organizations could do to manage technostress. Find below their suggestions:



Firstly, respondents suggest that, Managers in general should be concerned about the need for IT skills training and should act on this by formulating and implementing related policies that become binding on the organization.

Secondly, human resource managers should look at innovative ways to impart IT knowledge; staff would be motivated to partake and be active in IT training sessions if they are for example, held away from the office setting and in a more leisurely environment.

Thirdly, Human resource managers should ensure that employees in line with company policy, embark on their legitimate annual leave or vacation without carrying over arrears (unused days) into working another year. Human resource departments should also provide recreational activities at work for breaks and ensure employee participation in fun activities held in the office for the purpose of destressing.

Fourthly, respondents suggest that if Institutions practice job rotation more, it would prove helpful in managing technostress. This is because, employees will over-time become familiar with all aspects of the firm's operations, its operational software and its prerequisite IT skills. If a need for a transfer or role change or reassignment eventually arises, most employees would fit into new roles with little or no stress as they have already familiarized with its accompanying Tech requirements.

Also, respondents suggest that, IT gadgets provided by employers and top management for work should be top-notch and up to date. This will lessen technostress levels as employees will encounter fewer tech hitches in executing their job tasks.

Again, survey participants suggest that, training programs should not only be generic but possibly tailored to individual needs to ensure effective assimilation, regardless of each employee's strengths and weakness. They feel this will help reduce the occurrence of technostress.

Finally, respondents suggest that, top management of institutions should ensure that, software developed for operational purposes and employee use are built to be user friendly and able to aid employees in multitasking.

#### 4.3. Discussion

In her research entitled "Communication and culture in Ghana: technology's influence and progress in a new digital age", written in December 15, 2003, Ayensu states that there has been rapid technological development in Ghana over the past five years preceding her research paper. She states that, increasingly Ghanaians are integrating various forms of technology, such as radio, cellular phones, television, newspapers and the Internet into their daily lives.

As a follow up, the purpose of the first research question "To what extent do Ghanaian organizations use technology in recent times?" is to find out how far reaching technology now is in a typical Ghanaian organizational set up. That is, to find out if technology is used for example as just a means to run the day to day operations or if it forms an integral part of the organizations under study's very existence and structure. As in, playing a key role in security, communication and workforce adherence. The respondents' responses to the questions are bases for generalizations in the tertiary education and financial sector respectively.

Concerning company use of automated doors or entrances that verify employees' identity biometrically, 46.2% of the respondents confirm that their firms make use of such systems, meaning that, while a lot of organizations fall on technology to enhance security, a larger number of institution remain with the old manual methods. Regarding the use of check-in system for clocking in and out before and after working days, 60.7% of the respondents confirm their firm's use of such systems. This means that, though not all institutions subscribe to the idea of using technology to track absenteeism, adherence and overall output, a lot of organizations actually make use of clock in/ clock out systems.

Again, regarding institutional use of computerized system to run day to day operations, 79.3% of the respondents answered in the affirmative. This indicates that most, though not all, banking, financial and tertiary educational institutions make use of a computerised system or platform for daily operations. Also regarding communication and research, a 91.7% majority of respondents indicate that their firms make use of the internet and an email system. This indicates a high use of computers in most organizations; the internet and email systems require the use of computers and its accompanying accessories. Concerning participants' daily work routine, 95.9% of the respondents indicate that, theirs involve high use of telephones and mobile phones. This again is an indication that, for most Ghanaian organizations, technology plays a major role in internal and external communication.

In his essay entitled "promoting the use of ICT in the construction industry: assessing the factors hindering usage by building contractors in Ghana", written in September, 2012, Sekou explores how technology is being fused into the construction industry and looks at the challenges faced in that direction. One of the findings he came out with was that information and communication Technology (ICT) nowadays has great impact on the construction industry and the way it works and as a result, technology is viewed as crucial for effective and successful project delivery.

Over-all, this is how respondents rate the extent of technology use in their daily job routine using a Linkert scale ranging from 1 to 5. 8.3% rate below average, 11.7% rate 3 average, 15.2% rate above average and a 64.8% majority rate 5 indicating a high use of technology in their daily job routine. From the data presented, it appears (based on three selected institutions) that, technology is a fast-growing tool in a number of Ghanaian organizations. For some firm's technology plays major roles and for others, it is used for minor operations. One thing that becomes evident however is that technology is cannot be totally done away with in the running of an organization.

Aghwotu and Owajeme (2010) wrote a research thesis entitled "Technostress: Causes, symptoms and coping strategies among Librarians in University libraries" in 2010. Their paper seeks to examine the causes, symptoms and coping strategies of technostress among librarians in university libraries. The findings of the investigation show that majority of the librarians (both sex) experienced technostress using computers and its related technology, as a result of technological changes. The second research question "what are the factors that cause employee technostress (components of technostress)?" looks into individual factors and organizational factors that cause technostress.

The data presented shows that majority of the survey participants (95.2%) agreed that their job role regularly requires multi-tasking. Secondly, majority of the respondents (79.3%) feel that they are sometimes overwhelmed by constant email and phone interruptions which have to be managed while performing their designated job functions. Again, more of the survey participants (47.5%) agreed that it takes a period of adjustment to get used to the frequent change in technology (phones, computers and their accompanying software, etc.); thus, leading to stress and lapses in their work flow. From the data presented as part of investigations into individual factors that cause technostress, it becomes apparent from employee sentiments that, each individual's ability to cope with technology and its accompanying stress is unique to him or her; therefore, what might cause technostress in some employees may not necessarily do same in others.

The survey also takes a look at organizational factors that may cause technostress. Majority of the respondents feel (125 respondents (87.6%) that thanks to technology, their work sometimes extends into their homes. Secondly, most of the respondents (70.4%) disagreed with the statement that, they feel threatened by new employees who are more experienced with technology. Based on the statistics, generalization can be made that new employees with tech skills are not a major source of stress to existing employees as most of them do not view them as threats.

Again while, 71% of the respondents agreed with the sentiment that, because of the availability of technological aid, they are often given job tasks with unrealistic deadlines and this is a source of stress for them. Only 20.7% agreed that the constant upgrades in technological systems at work creates uncertainty as it makes it difficult to develop solid tech skills. 52.4% respondents disagreed and 26.9% remain neutral. Based on the data gathered, it appears that, though for a small number of employees, tech upgrades are a source of stress, for most of them, it is not. With 85.5% majority of respondents aligning with the sentiment that network interruptions can be stressful; a generalization can be made that, for most employees, network interruptions are a source of stress. Finally, an 81.3% majority of respondents agreed that constant freezing of computers especially when they have to meet a deadline could be very stressful. A generalization can therefore be made that, computer malfunctioning when a deadline is approaching can be a source of technostress for most employees.

In their essay titled "Technostress under different organizational environments: An empirical investigation" written in 2008, Wang, Shu and Tu, emphasize the main causes of technostress. They state that "ICTs such as the Internet, the advanced wireless technologies and mobile communications networks are becoming increasingly indispensable in many aspects of business and everyday life. But to keep up with the fast advancing pace of the new ICTs, employees have to constantly renew their technical skills as well as enduring pressure from a more complex system and higher expectations for productivity. This often leads to ICT related technostress experienced by employees in many organizations"

The results in Wang et al (2008) research show that, employees from more centralized companies often perceive more technostress. In addition, they discovered that in organizations that are both highly centralized and highly innovative, the overall technostress level is the highest. Their research also found out that, on the other hand, in organizations with low centralization and low innovation, technostress is the lowest. To them, the very structure of an organization influences technostress levels.

The third section of the survey aimed to examine other factors that influence the level of technostress in employees. Looking at the statistics, a number of observations can be made and subsequently inferences drawn.

First off, 51.7% of the respondents feel that management of their organizations do not provide efficient training when new technology is introduced and that leads to increased technostress levels. Secondly, from the data presented, most of the respondents (91.7%) feel that their job tasks necessitate the use of technology and if computers and other equipment provided are obsolete, it increases their technostress levels. Again, a 95.9% majority of the survey participants think that, bad internet connections which affect work and correspondence also leads to increased technostress levels. Lastly, a 71.0% majority of respondents affirm that, thanks to technology, work spews into their homes and this increases technostress as a result of lack of balance between their work and their life.

A look at the essay titled "Exploring Themes of Technostress for End Users Working with Hardware and Software Technology" written by Bradshaw and Zelano re-echoes these influencers. According to the researchers, "Technology in the workplace is widespread in order for an organization to conduct business operations routinely. Technology allows the end user to experience work overload by taking on many projects and work stoppage from misconfigured computers, outdated devices, and network outages. Work overload (techno-overload) and stoppage because of technology has spawned a new terminology from work related stress termed technostress".

Aside the factors confirmed in this survey as influences of technostress levels, the statistics to an extent confirm the findings of Wang et al (2008); that technostress levels are higher in centralized and more innovative companies and vice versa. This is because, in a centralized company, every decision is taken at the top level. As such, the decision-making process would be slow. It can therefore be assumed that, decisions concerning issues such as computer and other tech gadget replacement, working hours and over time, internet connection and tech assistance among others would mostly delay. Subsequently, employees with bad tech gadgets and bad internet connections for example, would be in distress for a longer period and be prone to higher levels of technostress.

The fourth section of the survey aimed to examine the possible effects of technostress on the employee. The following observations and generalizations are made and linked to previous literature.

Firstly, 62.7% of the respondents agreed with the sentiment that, the stress that comes from blurring of work home boundaries due to technology leads to poor decision making. Secondly, 79.3% of respondents agreed with the sentiment that, some employees who are unable to cope with technology and its accompanying stress feel dissatisfied with their jobs. This links to the research by Khan, Rehman, and Dr. Shafiq-ur-Rehman entitled "An Empirical Analysis of Correlation between Technostress and Job Satisfaction: A Case of KPK, Pakistan". The objective of their research was to explore an association between technostress and job satisfaction of university librarians in Khyber Pakhtoonkhwa (KPK), Pakistan. For that reason, a self-administered questionnaire was used to gather

the data from 148 librarians serving in 25 public and private sectors universities of KPK. Pearson correlation was calculated to investigate the correlation of technostress and job satisfaction. Multiple regression analysis was performed to test the three hypotheses between technostress dimensions and job satisfaction. Findings of this study show a negative but statistically significant relationship of three dimensions of technostress with job satisfaction.

Thirdly, 64.8% of respondents agreed that, some employees who are unable to cope with technology and its accompanying stress show less commitment to their jobs and are more likely to be involved in absenteeism. Again, 87.5% of the participants (forming the majority) are of the view that, employees who experience technostress are usually less innovative and productive. This effect of technostress is evident in the essay written by Rajput, Gupta, Kesharwani and Ralli entitled “Impact of Technostress in Enhancing Human Productivity: An Econometric Study Information Technology in the corporate world, effects of the continuing developments in information technology (IT) on business activities”(2011). The researchers opine that, technology has made employees work under greater mental pressure and sense of anxiety and pessimism as they have to keep up with the fast advancing pace of the new ICTs. They also state that employees have to constantly renew their technical skills as well as enduring pressure from a more complex system and higher expectations for productivity. According to Rajput et al, Studies have found technostress to have significant negative impact on employee productivity. The paper concludes, results are evident which verify that there is a negative influence of IT usability on the workforce who specifically have interactions with IT innovations regularly on productivity.

Also, a 75.2% majority of the participants agreed that some employees who get technostressed end up experiencing psychological strains emotional reactions to stressor conditions such as depression, and negative self-evaluation. Some other perceived effects of technostress according to the survey participants

1. Technostress leads to bad performance and low employee productivity
2. Technostress makes the process of employee rotation/ reassigning slow and tedious.
3. Technostress affects employee motivation
4. technostress like any other form of stress leads to a number of health issues

In their research paper titled “Effect of Techno-Stress on the Performance of Accountants and Other Managers in Nigerian Banking and Brewery Industries” written by Odoh, Odigbo and Onwumere, we find some of the effects this research paper re-echoes. In this study, the effect of techno-stress on accountants and managers in select critical economic sectors in Nigeria is x-rayed. The objectives sought included to determine the effect of techno-stress on the performance and health of majority of middle-level and senior managers in the Nigerian banking and brewery sectors. Results indicated that techno-stress has significantly affected the performance of majority of middle-level and senior managers negatively in the Nigerian banking and brewery sectors. It has also significantly increased the rate of ill health of majority of managers in the Nigerian banking and brewery industries.

The aim of the fifth section of the survey was to identify mechanisms that can be put in place to mitigate or at least, manage technostress. A glance at the data presented shows that, 73.1% of the respondents agreed that, taking ‘digital naps’ in the course of the working day will allow them to **disconnect** for a while and keep from feeling stressed. Again, 95.9% of the respondents agreed that, if managers spot training needs and run courses which make the learning process more personal and help them acquire **new skills**, employees will get rid of stress and anxiety more easily. Rajput, Gupta, Kesharwani and Ralli identified this need in their essay entitled “Impact of Technostress in Enhancing Human Productivity: An Econometric Study Information Technology in the corporate world, effects of the continuing developments in information technology (IT) on business activities”(2011). They state in their research paper that, in the enterprise, information technology has made significant changes on production design, management control, decision-making and organizational design and is becoming increasingly indispensable part of many aspects of business and everyday life. But at the same time, there is a need for specialized staff support, training for managers and employees, and a redefinition of jobs.

The research paper titled “Effect of Techno-Stress on the Performance of Accountants and Other Managers in Nigerian Banking and Brewery Industries” written by Odoh, Odigbo and Onwumere does not only examine the effect of techno-stress on accountants and managers in select critical economic sectors in Nigeria but concludes with a recommendation as to how to manage this phenomenon. The researchers state, “however, mindful of the devastating effect of the problem, it is recommended that organizations should occasionally contract clinical psychologists and occupational therapists to organize health lectures for their staff on techno-stress, send them on frequent computer-trainings, reduce their work-loads and allow them more leisure and holidays. In the same light, 93.1% of respondents agreed that, **better time** management skills will help employees conciliate their professional and personal lives and 96.4% of them agreed that having a clear policy in place about use of the internet and limitations on working hours is essential. Another 95.8% of respondents agreed that prohibiting work on public holidays and weekends and also evening work from home would be helpful to employees. 80.7% of the survey participants agreed that IT restrictions should be put in place that not only prevents unauthorized use of certain sites, such as social media, but limits the times and locations from which an individual can work.

## 5. Conclusions

In spite of the usefulness of technology in improving organisational productivity and performance as depicted in the literature and observed in many organisations, organisations and individual employees must not operate in oblivious of its negative consequences on employees and the organisation as a whole. It is therefore expedient for management to put appropriate measures in place to manage if not totally avert technostress and its associated consequences in the organisation so as to ensure effective production and wellbeing of employees.

## 6. Recommendations

First of all, this research recommends that, regardless of the line of business or industry type; regardless of the size and location of a business; business owners, employers and managers should ensure that technology plays a significant role in the organization. Stake holders should research and conclude on what the best fit in terms of technology is for the organization and integrate it to form an integral part of operations, research, communication, security, monitoring, control and adherence, etc. Technology though has its short comings, would go a long way in improving organizational output.

Secondly, line managers should ensure that realistic deadlines are assigned to teams and individual for every job task taking into consideration the strengths and weaknesses of each individual and team. Human resource management should formulate and enforce strict and clear IT policies. Restrictions should be put in place to regulate internet use and limit the times and locations from which an individual can log on to company network to work. This will prevent employees from surfing social media at work and ending up having to work overtime and also prevent them from working from home.

Thirdly, management should provide appropriate tech tools, gadgets and internet services and ensure maintenance and replacement of these devices when the time is due. Management should encourage employees to take “Tech-Free breaks” at some point in the course of a working day in order for them to **disconnect** for a while and keep from feeling stressed.

Again, management should spot individual and group training needs and run courses individual tailored tech training in and outside work settings. This will make the learning process more personal and help them acquire **new skills and** employees will get rid of stress and anxiety more easily.

Also, it is recommended that organizations should occasionally contract clinical psychologists and occupational therapists to organize health lectures for their staff on techno-stress. Technostressed employees on their part, should seek medical attention.

Another recommendation is, employees should be equipped with **better time** management skills. Their workloads should also be reviewed occasionally and reduced if necessary at a point. Working on public holidays and weekends and also evening work from home should be prohibited and employees should be allowed more leisure and holidays. This will help employees conciliate their professional and personal lives and achieve work-life balance.

Finally, it is recommended that top management of institutions ensure that, software developed for operational purposes and employee use are built to be user friendly and able to aid employees in multitasking. Again, institutions should practice job rotation more as it would prove helpful in managing technostress. This is because, employees will over-time become familiar with all aspects of the firm’s operations, its operational software and its prerequisite IT skills.

Individuals or employees on their part should learn, pickup and update their tech skills to make them more employable and less prone to technostress. Employees should also take time off during the working during which they have rest from consistent interaction technology. Employees should demand, request and take their annual vacation, enjoy their evenings with family and friends and spend their weekends unwinding.

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