



DIGITAL-STRESS AND EMPLOYEE'S BEHAVIOURAL OUTCOME IN AN AUTOMATED WORK PLACE: A STUDY OF STAFF OF COMMERCIAL BANKS IN YENAGOA

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Abstract: The use of technological devices to carryout routinely performed tasks in the workplace (office automation) has been embraced by organizations as a competitive strategy. However, introduction of technology in the workplace comes with plethora of experiential setbacks, one of which is stress resulting from the use of digital technologies in the work place (digit-stress). This research is focused on examining the empirical link between digit-stress and employee's behavioural outcome. The predicting variable digit-stress was operationalized with hyper-task, job demand and job control whereas, presenteeism and job-dissatisfaction were used as measures of the criterion variable. 179 employees drawn from six commercial banks were used for the study, data collected where inferentially analyzed with Pearson's Product Moment Correlation with the aid of SPSS version 23. Finding shows that digit-stress has significant relationship with employee's behavior outcomes as hyper-task, job demand and job control all showed a positive significant correlation with presenteeism and job dissatisfaction. Based on the results, the study recommends that employee's job should periodically be reengineered, enriching its content to arouse their satisfaction on the job, and streamline tasks upfront so they can have time to complete them without undue pressure. Also, Employee's should be empowered with some level of control on how and when tasks are to be performed timely.

Keywords: Digit-stress, employee's behavioural outcome, job control, job demand, presenteeism and job-dissatisfaction.

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INTRODUCTION

Organizations in efforts to keep pace with technological advancements and remain competitive in business have embraced office automation, that is, the use of technological devices to carryout routinely performed tasks in the workplace. Evidences show a great deal of efficiencies in job performance and lean management of resources recorded over the years in-lieu of technology involvement at the workplace. The disturbing question in the mind of inquisitive researchers is, are these technological application in the workplace void of setbacks or does it introduce plethora of challenges left for organizations to deal with? Well, one of such experiential setbacks resulting from technology in the workplace is “digit-stress”. Digit-stress is referred to work related stress resulting from the use of digital technology. It is a coinage from the combination of two words; Digital and Stress.

Digital technologies are electronic apparatus, systems, devices and resources that breed, store or process data. Examples include social media, the electronic mail, multimedia and mobile phones. Kapur (n.d) posits that widespread use of digital technologies is in the form of computers, laptops, tablets, smart phones, mobile phones and so forth. He added that the main purpose of digital technologies is to form cohesion between individuals swiftly, effortlessly and cost-effectively.

There has been a phenomenal contribution of technology for improved work performance in organizations; especially those determine to break-off from the shackles of traditional work setting and culture by embracing automation of the workplace. Digital technological importance is felt in every sphere of work setting including the educational sector; Kapur (n.d) noted that educational institutions, individuals are dependent upon technology to a major extent, for it is regarded as the lifeline of learning. Wikramanayaka (2014) also states that digital technology in education aid speedy transmission of knowledge among people and applications transparently. He further said advances in digital technology have opened many avenues of learning. Technology has made information accessible, transmittable from anywhere possible. Digital technology has also greatly influenced documentation and how correspondence are treated with the advent of cloud computing, email and even integration of social media- Whatsap for official use in the workplace. Moreso, organizations are becoming employee friendly by adopting employee support programmes and policies like encouraging telecommuting for enhanced performance and create an obligatory balance in the various employee’s life domains and with

the help of video charting work will still not suffer in the absence of a staff in the physical office. Meetings are held online through video conferencing and important decisions are taken promptly.

In spite of these plausible changes digit-tech has brought to the workplace, it still has its setbacks. Employees who are not inclined in the use of these automations face lots of physical and psychological stress, in effort to cope with the changes to maintain their jobs especially in the public sector where training and development of staff is disregarded yet optimum performance is required from staff.

Michael (2019) recounting the digit-tech result of work related stress said, due to the much use of technology specifically, computer at work, personal computer at home in cases of work extension or spillover and its constituent devices, employees have become more efficient, engage in role breadth by reducing headcount, and some feeling weighed down with physical, mental and emotional health challenges as resultant effects. Michael further noted that albeit, work related stress has increased in the workplace in the past decade and this is as a result of gamut of digital technology related tasks in the office such as; responding to voicemail messages reading e-mail, using the internet for research, faxing documents, calling customers responding to incoming calls from customers typing notes into the system, sending memos, sending written confirmation to customers, and discussing problems with colleagues of which most of these tasks are done on air with the aid of digital technology in the case of an automated offices.

Mahboobeh and Ali (2011) aver that generally, work related stress has diverse negative impacts on employee's physiology and behavior; which can lead to reduce job performance and cause dissatisfaction significantly amongst others.

In-view of the above scenery the motivation of the study is to examine the challenges associated with digitalization of the workplace and the extent to which stress mounted on the employee resulting from the use of technology (digit-stress) is related with employee's behavioral outcomes in the automated workplace.

OBJECTIVE OF THE STUDY

The focus of the study is to ascertain the relationship between digit-stress and employee behavioural outcome. The specific object includes;

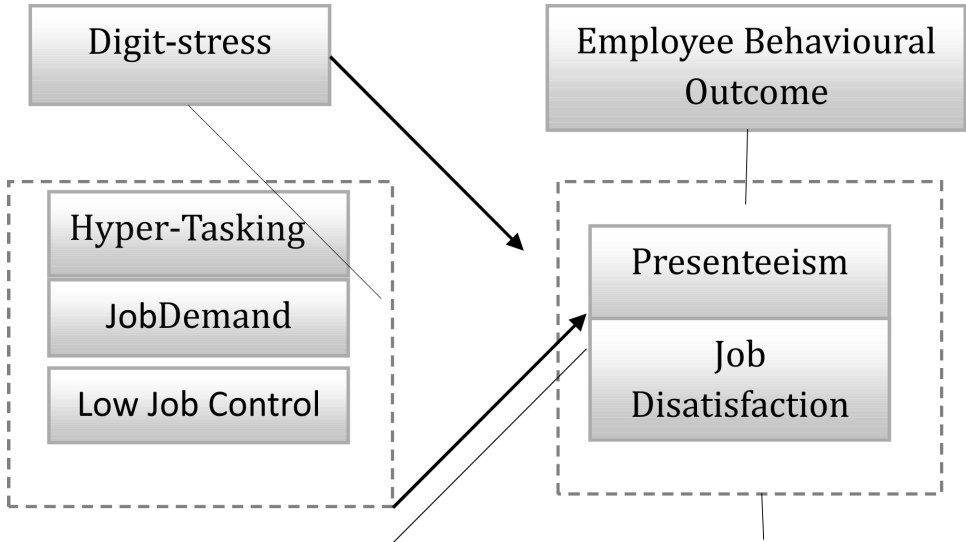


Fig. 1: Conceptual Framework

Conceptualized by the researcher

1. To ascertain the relationship between hyper-tasking and employee behavioural outcome
2. To determine the extent job demand is related to employee behavioural outcome
3. To examine the extent of relationship between low job control and employee behavioural outcome

RESEARCH QUESTIONS

The following questions provided bases for enquiry

1. Does hyper-tasking relate significantly with presenteeism?
2. Does hyper-tasking relate significantly with job dissatisfaction?
3. To what extent job demand relate significantly with presenteeism?
4. To what extent job demand relate significantly with job dissatisfaction?
5. What is the significant relationship between low job control and presenteeism?
6. What is the significant relationship between low job control and dissatisfaction?

RESEARCH HYPOTHESES

The null hypotheses formulated to guide the study are as follows

- H₀₁. Hyper-tasking does not relate significantly with presenteeism.
- H₀₂. Hyper-tasking does not relate significantly with Job dissatisfaction.
- H₀₃. There is no significant relationship between Job demand and presenteeism.
- H₀₄. There is no significant relationship between Job demand and job dissatisfaction.
- H₀₅. Low job control does not relate significantly with presenteeism.
- H₀₆. Low job control does not relate significantly with job dissatisfaction.

REVIEW OF RELATED LITERATURE

Theoretical Review

The theoretical base of this empirical work is rooted on Role theory posited by Kahn, Wolfe, Quinn, Snoek, & Rosenthal, (1964), one of the frontline theories on occupational stress. The assumption of this theory holds to the fact the average life of an individual is characterized by a number of roles he has to play including roles at work and roles outside of work, and stress (strains) occurs as a result of role conflict; that is, multi task or roles mount sets of pressure at these same time on the individual in that the compliance with one makes it difficult to meet up with the other. The relevance of this theory as a baseline for the theoretical review is premise on the fact that an average employee's job description in an automated office is multi-tasking. He is required to use digital technology to perform whole lots of tasks at the same time; responding to voicemail messages, surfing the e-mail and responding queries, researching through the internet, and faxing documents etc. these hyper-task in no doubt create strain on the employee which may result to various behavioural outcomes.

Stress/Digit-stress

Stress is a rejoinder of the body to a volition laden on it by pressure resulting from work demand. Michie (2002) is of the view that stress is conceived as pressure from the environment, and strain within the person. Further, he avers that it is the psychological and physical state that results when the resources of the individual are not enough to cope with the demands and pressures of the situation.

Stress is one of those most researched constructs in health science and psychological thesis. This upsurge of interest in research on stress of recent times could have been increase knowledge of stress impact on employee's behavioural outcome which is either positive or negative. "Stress is a response to changes in the environment as perceived by the individual. Moderate stress can be beneficial and stimulating, but severe and prolonged stress can have harmful physiological and psychological effects" (Pakize, Nuray, Ibrahim 2015). Mahboobeh and Ali (2011) share similar thought that stress has diverse negative brunt on people's physiology and behavior, which could reduce job performance and satisfaction, considerably.

Michie further noted that the workplace is an important source of both demands and pressures causing stress, and structural and social resources to thwart stress. The workplace factors that have been found to be associated with stress and health risks can be categorized as those to do with the content of work and those to do with the social and organizational context of work. Those that are intrinsic to the job include long hours, work overload, time pressure, difficult or complex tasks, lack of breaks, lack of variety, and poor physical work conditions.

Stress researches have taken a different dimension with advancement of information and communication technology application in organizations. Research efforts have been directed to different variables associated with technological impact in the workplace, hence, constructs like techno-stress and digit-stress which are new research trends in stress inquiries, all bring to bear the strains digital technology application impact on both employee and organizational outcome.

According to Brod (1984) in Ahmet, Erkan, Yusuf, and Arik (2016: 1331), "techno-stress is modern disease resulting from the sense of incompetence while trying to adapt to computer technologies". Terry (n.d), noted that Technology presence is felt everywhere, however, with technology, and its continual advancements in automated offices, workers are faced with an increased work related stress. Digit-stress which is a compound word formed from digital and stress, referred to strains on employee resulting from the use of digital technologies in the workplace. Operationalizing digit-stress; stress dimensions such as hyper-task, job demand, and low job control were adapted from the DCSM- demand, control, and social-support model of stress developed by Karasek (1985).

Employee Behavioural Outcomes

Many studies have predicted the individual behavioural outcome by linking such outcomes to certain inherent organizational and work-related factors;

such as pay satisfaction, organization supports, job-satisfaction, dissatisfaction and stress etc. (Steven, Annette, Timothy and Laura 2005; Mahboobeh and Ali 2011; Mart 2013). Employees tend to put on both productive and counterproductive behavioral outcomes as a result of one or more of the antecedents noted above (Mart 2013).

Collins, Ericksen, and Allen, (2005) noted commitment, trust, cooperation, higher level effort and involvement, and retention as productive employee behavioural outcomes as reaction to workplace related factors.

Corroboratively, Baseman, Revere, Painter, Stangenes, Lilly, Beaton, Calhoun and Meischke (2018), identified employee's behavioral outcomes in relation to workplace stress to include attrition, burnout, absenteeism, presenteeism reduce job satisfaction and job performance and early retirement, which are often used in literatures as measures of employee behavioural outcomes.

Premised on the above, Steven et al (2005) empirical study revealed that pay satisfaction was positively related to performance and negatively related to employee's intention to quit, which is one of the behavioural outcomes exhibited by employees. Similarly, Ahmed & Ramzan, (2013) survey also revealed a converse correlation between job stress and employee's performance. Workload, role conflict and derisory monetary reward are perceived as stressors that ultimately reduces employee's performance as a behavioral outcome Fonkeng (2018). Jeyarai, (2013) investigation further show occupational stress as a major cause of employee counterproductive behavioral outcome of absenteeism and increase tendency to quit.

As revealed from literature it is however understood that employees behave divergently, and these behavioral outcomes are either productive (positively) or counterproductive to the organization which are rejoinder to an organization's work-related variables.

METHODOLOGY

The study adopted the survey design using the questionnaire as the primary source of data collection. The respondents involved a sample of 179 employees drawn from six commercial banks in Yenagoa, Bayelsa State. Digit-stress (the independent variable) was measured with a 12-item scale designed by the researchers. Each component of digit-stress was measured by 4 items on a 5-point Likert scales. Employee behavioural outcomes (the independent

variable) was measured with an 8-item scale designed by the researchers with each measure having 4 items on a 5-point Likert scale. Scale reliability was tested using the Cronbach's Alpha. The results of the alpha test are shown along with the descriptive results in table 2 below. Generated data was both descriptively and inferentially analyzed. Inferentially, the Pearson's Product Moment Correlation was used with the aid of SPSS version 23.

RESULTS

Table 1: Demographic Distribution of Respondents

<i>Demographic Variable</i>	<i>Descriptions</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Career Status	Management	32	18%
	Employee	147	82%
Gender	Male	84	47%
	Female	95	53%
Employment duration	1-5 years	66	37%
	6-10 years	74	41%
	11 years and above	39	22%
Edu. Qualification	OND/HND	84	47%
	B.Sc.	62	35%
	M.Sc./Ph.D.	28	16%
	Others	5	2%

Table 1 above provides the demographic information of respondents. As shown, 18% of the respondents are managerial staff in their respective banks and the rest 82% are employees. 47% male and 53% females. 37% had been employed for a minimum of 1 year, 41% for a minimum of 6 years and the rest 11 years and above. For highest educational qualification, 47% OND or HND, 35% B.Sc., 16% M.Sc. and the remaining 2% has other qualifications.

Table 2: Cronbach's Alpha Reliability and Mean Scores

<i>No.</i>	<i>Factor</i>	<i>Mean Score</i>	<i>Number of Items</i>	<i>Cronbach's Alpha</i>
1	Hyper-Tasking	3.69	4	.88
2	Job Demand	3.80	4	.82
3	Low Job Control	4.34	4	.86
4	Presenteeism	4.31	4	.74
5	Job Dissatisfaction	3.83	4	.73

Source: SPSS Output of Survey Data, 2022.

The scales were found reliable in this study, as the alpha value for each of the three constructs digit-stress i.e. hyper-tasking (0.88), job demand (0.82), low job control (0.86), and the two measures of employee behavioral outcomes of presenteeism (0.74) and job dissatisfaction (0.73) are all above the alpha bench marks for reliability of .60 (Malhotra, 2004) and .65 (Burns & Bush 1995).

Again, the high mean scores for all the items also suggest a general agreement amongst respondents to the items raised in the questionnaire, implying that digit-stress does influence employee behavioral outcomes to a large extent.

Table 3: Pearson's Correlation between Digit-stress and Employee Behavioral Outcomes

		<i>Presenteeism</i>	<i>Job Dissatisfaction</i>
Hyper-Tasking	Pearson Correlation	.266**	.838**
	Sig. (2-tailed)	.000	.000
	N	179	179
Job Demand	Pearson Correlation	.876**	.346**
	Sig. (2-tailed)	.000	.000
	N	179	179
Low Job Control	Pearson Correlation	.475**	.414**
	Sig. (2-tailed)	.000	.000
	N	179	179

Source: SPSS Output of Survey Data, 2022. (**correlation significant 0.012-tailed)

The correlation results above in table 3 indicate correlation between hyper-tasking and presenteeism is .266 and is significant at $p = .000 < .01 < .05$, and correlation between hyper-tasking and job dissatisfaction is .838 significant at $p = .000 < .01 < .05$.

Also, correlation between job demand and presenteeism is .876 significant at $p = .000 < .01 < .05$ and with job dissatisfaction is .346 significant at $p = .000 < .01 < .05$. Finally, correlation between low job control and presenteeism is .475 significant at $p = .000 < .01 < .05$ and with job dissatisfaction is .414 significant at $p = .000 < .01 < .05$.

CONCLUSIONS

The focus of this paper was to establish the empirical link between digit-stress and employee's behavioural outcomes in an automated workplace. To achieve the aim, three six research questions and hypotheses were drawn to guide

the study. Data collected through questionnaires as major primary source instrument on 5-point Likert scale was analyzed descriptively and inferentially with mean and Pearson's product moment correlation and result shows thus;

Hypotheses 1 and 2 were rejected and alternate hypotheses accepted indicating that hyper-tasking shows significant relationship with employee's behavioural outcomes of presenteeism and job-dissatisfaction. The implication is that when an employee job require him to be multi-tasking, that is, performing several tasks at a time in an automated office it mounts stress on the employee which eventually results to tendency of being present at work yet not productive (presenteeism) and also feel dissatisfied with his job. This finding is in consonance with earlier position held by Karasek (1985).

Hypotheses 3 and 4 were also rejected. Job demand also shows grave significance with presenteeism and job dissatisfaction. Implying that when workers are mounted with workloads and pressure to meet up with timeliness causes breakdown in employee's health with eventual behavioral outcomes of presenteeism and lack of interest on one's job.

Hypotheses 5 and 6 were equally rejected which means Job control has significant relationship with presenteeism and job-dissatisfaction. When an employee lacks freedom and a measure of autonomy as to how and when he carryout his tasks he seems to display counterproductive behaviours like being present at work and not productive or displaying lack of interest on his job.

RECOMMENDATIONS/ POLICY IMPLICATIONS OF STUDY

Based on the conclusion reached on the study the following recommendations were made

1. Management of organizations should reappraise staff to ascertain their self-efficacy to be hyper-tasking and if not should ensure that appropriate measures be taking to describe their jobs in such that they perform tasks in sequel.
2. Employee's job should periodically be reengineered, enriching its content to arouse their satisfaction on the job, and streamline tasks upfront so they can have time to complete them without undue pressure.
3. Employee's should be empowered with some level of control on how and when tasks are to be performed timely.

DIRECTIONS FOR FUTURE RESEARCH

Researchers are encouraged to use other operational dimensions of digit-stress and employee's behavioral outcome measure in different sectors to see if finding on this study is generalizable.

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