



EMPLOYEES' STRESS AND ORGANIZATIONAL PRODUCTIVITY OF SELECTED TERTIARY INSTITUTIONS IN EDO STATE, NIGERIA

Williams Omokhudu ODIWO, PhD¹, Fatima Jael ALIU² & Arewah Matthew Emmanuel³

¹Department of Business Administration, Edo State University Iyamho, Edo State, Nigeria odiwo.williams@edouniversity.edu.ng, odiwowilliams@yahoo.com +234(0)8075635789, Orchid ID <https://orcid.org/0000-0003-0621-1549>

²Department of Business Administration, Edo State University Iyamho, Edo State, Nigeria +234(0)7032610090

³Department of Banking and Finance, Edo State University Iyamho, Edo State, Nigeria . arewah.matthew@edouniversity.edu.ng, +234(0)8023074157

Abstract

The concept of Stress within the work environment is a continuous problem facing all employees in Nigeria, it has generated increasing public and media concern, and its cost at work is significantly increasing. Ebhote et al (2022) conducted a study on the effect of work stress on employee productivity. They concluded that employees in the service industry face employers' negligence regarding workplace stress. Therefore, this paper is undertaken to fill the paucity of empirical evidence on employee stress and employee productivity in the tertiary institution in Edo State. The main objective of this study was to examine employees' stress and organizational productivity of selected tertiary institutions in Edo state, Nigeria. A sample size of two hundred and twenty-two (243) was chosen, using the Yaro Yamane formula with a 5% level of significance. Questionnaire was used in collecting the data and a 5-point Likert scale was used to measure the responses of the respondents. Regression, analysis was carried out in the study with the aid of SPSS version 21. Findings reveal that physical stress has significant positive on the organizational productivity of selected tertiary institutions in Edo State, psychological stressors has a positive effect on organizational productivity of selected tertiary institutions in Edo State. The study concludes that employee stress influences organizational productivity. It further recommends that tertiary institutions in Nigeria should employ innovative processes like physical activity adjustment that suite the employees' capacity to deliver within the organization mandate that eradicate over-exertion.

Keyword: *Employees' Stress, Organizational Productivity, Tertiary Institution, work environment, employees*

Introduction

Stress within the work environment is a continuous problem facing all employees in Nigeria, it has generated increasing public and media concern, and its cost at work is significantly increasing (Olannye, 2006). The work environment productivity is also tied to innovations that improve the quality of life and standard of living with the inherent adverse effect on productivity enshrined as stress. Employees worldwide are required to adjust to tactical technical adjustments as required by necessitated changes, which will heralds anxiety, tension, anger, frustration, or depression, which invariably leads to stress arising from job demands and job resources. Although stress is inherent in life and human behaviour, work place stress is not confined to the work place but it is frequently brought home as well. When the necessary technical adjustments required from the employees could not be made, a new world of uncertainty evolved in the workplace that heralded anxiety, tension, anger, frustration, or depression which invariably led to stress arising from job demands and job resources.

Employees' stress and work conditions in Nigeria tertiary institutions are enormous which may include work demands, excessive work load, long duty hours, depression, financial problems, new knowledge needs, conflict between professional and personal life, economic instability, and those related to the occurrence of death, lack of opportunities for promotion, bullying and sexual harassment (Manokha, 2020).

Statement of the Problem

Stress can have various effects on the individual as well as on the organization. Clearly, not only that the individual suffer but also the organization may also be affected by absenteeism, work-related accidents, turnover, and

impaired decision-making. From the organization's standpoint, management may not be concerned when employees experience low to moderate levels of stress. Such levels may lead to higher employee performance. However, high levels of stress or even low levels sustained over a long period can lead to reduced employee performance and thus require action by management. From the individual standpoint, even low levels of stress are likely to be perceived as undesirable. Ebhote, Ohiokha, Odiwo, Godwin & Dabor (2022) conducted a study on the effect of work stress on employee productivity. They concluded that employees in the service industry face employers' negligence regarding workplace stress. Therefore, this study is undertaken to fill the paucity of empirical evidence on employee stress and employee productivity in the selected Tertiary institution in Edo State.

Objective of the study

The broad objective of the study is to examine the effect of employees' stress on the organizational productivity of selected tertiary institutions in Edo state, Nigeria. Why the specific objectives are to:

- i) examine the effect of physical stress on organizational productivity of selected tertiary institutions in Edo State, Nigeria;
- ii) determine the extent to which psychological stress affect the organizational productivity of selected tertiary institutions in Edo State, Nigeria;

Research Questions

The following research questions were drawn from the objectives.

- i. To what extent does physical stress significantly affect the organizational productivity of selected tertiary institutions in Edo State, Nigeria?
- ii. To what extent does psychological stress affect the organizational productivity of selected tertiary institutions in Edo State, Nigeria?

Research Hypotheses

H₀₁ - There is no significant impact of physical stress on the organizational productivity of selected tertiary institutions in Edo State, Nigeria.

H₀₂ - Psychological stress does not affect the organizational productivity of selected tertiary institutions in Edo State, Nigeria.

REVIEW OF THE RELATED LITERATURE

Organizational Productivity

The term employee productivity has been well used in the management literature. Employee productivity is the value chain of the employee's contribution to the organisation's goal, regardless of whether the contribution is positive or negative which determines organisation's success; conducting employee productivity appraisal ought to be done appropriately in order to ascertain if the goals and objectives of the entities are being met (Martin, 2021). Productivity is defined as the ability of a set of economic resources to produce anything, which can also be viewed as a trade-off between input (input) and output (output) (Shivani et al., 2021). Work productivity is influenced by a variety of factors, including the personnel, the firm environment, and overall government policy (Singh, 2000). Productivity is a measure of the efficiency of a person, machine, factory system that covers inputs into useful

outputs. Employees' productivity is an assessment of the efficiency of a worker or group of workers which is evaluated in terms of the output of a worker in a specific period of time (Aladesoun et al., 2020).

Organisational' productivity is the most important dependent variables in an industrial and organizational psychology. Some main application needs to be applied as to improve productivity of organisations (Bunmi et al, 2020). It is the combined result of effort, ability, and perception of tasks which is imperative for organizational outcomes and success (Parashur & Singh, 2005). Many factors influence organizational productivity; and workplace environment factors stands out as the key determinants of performance. It is the key multi character factor intended to attain outcomes and has a major connection with planned objectives of the organization (Shinnar et al, 2012). A lot of business owners and managers think that employees are only concerned with how fat their account will become at the end of the month and hence determines the satisfaction and job commitment level of employees.

Employees' Stress

Shivani et al. (2016), employees are essential part of organisation's existence, so the workplace and the workforce are considered significant contributory factors in the ability of organisations to deliver on their (short-term and long-term) goals. Essentially, it is this optimal drive for productivity and sustainability that often leads to management issues including stressors (such as work-life imbalance, over-labouring, and burnout among others), which in turn cause employees to develop stress at work . Stress reflects a sense of anxiety, tension, and depression that permeates human endeavours. It is an unavoidable consequence of modern living.

Contextually, stress is used to express every feeling that is either negative or positive, and perhaps not pinned down as health damage. However, it is seen as a possible hazard to emotional and physical responses (Ebhote et al., 2022).

Theoretical Framework

The theory underpinning this study is Negative Linear Theory as explained below:

Negative Linear Theory

This theory is the most tested and supported in the stress and productivity literature (Manokha, 2020). and it posits that stress in any form irrespective of the level will be detrimental to organization's productivity. This is because when employees are exposed to work stressors in which their energy is channeled towards tackling these stressors finding a means to cope with them hence these diversion of energy impacts upon the performance of their job functions because they are left with residual energy to execute their job functions (John, 1999). Also, employee's responses to work stressors produces certain physiological reactions which also draw energy from them thereby leaving them with little energy to focus on more important work duties and eventually affecting performance negatively. Lastly, when stressors arise, it narrows the thinking capacity of employees which thereby increases the possibilities of omission and errors that can eventually lead to poor performance. The negative linear theory is also

synonymous to the hindrance stressor proposed by Manokha, (2020) which shares a similar conceptual meaning with the negative linear theory. According to them, hindrance stressors such as role ambiguity and job insecurity are obstacles that prevent employees from attaining their specific job roles and responsibilities thereby affecting negatively on employee job performance. Work outcomes are impacted upon negatively and motivation decreases. This is because motivation is a prerequisite for optimum performance. However, some other researchers (Abu and Ahmad, 2013) have argued that certain workplace stressor such as job insecurity could be categorized simultaneously as both a hindrance and a challenge stressor. They further explained that whilst some employees can perceive job insecurity as a threat which could produce negative emotions in employees such as anxiety, depression and job detachment.

Empirical Review

Oginni et al. (2023) study was carried out using the economic recession as the propelling factor to determine the job stress level and employee mental health status and examine their relationship using the oil and gas industries in the central senatorial district of Lagos as the unit of analysis. The study made use of multi-stage sampling techniques to select the sample, sample size, and the administration of the questionnaire to capture and preserve the characteristics of the respondents. From the analysis of data collected, it was found that the level of job stress was very high based on the variable indices such as qualification, co-workers' relationship and human relations, poor administrative and technical support, terms and conditions of employment, workload and time pressure, adequacy of compensation packages, family and work life relations, and superior-subordinate relationship, as well as the organizational policies and these indices, independently and significantly influenced employee mental health negatively at 0.05 level of Sig. it was concluded that economic recession as experienced by the sector was responsible for the high level of stress among the employees which invariably affect the mental health of employees to be poor/low. It was recommended that the management of these organizations should endeavour to improve the existing organizational policies to reduce friction and improve mental health.

Onu et al. (2022) study, sought to ascertain the effects of work stress on the performance of employees of Deposit Money Banks in Nigeria using First Bank Branches in Enugu, Nigeria as the focus of study. Specific interests were on the relationships between employee burnout and employee productivity, aggression in the work place and employees' effectiveness, and between organizational conflicts and employees' efficiency. The population of the study was made up of 124 staff of four branches of the bank. Using the Taro Yamane formula for finite population, the sample size stood at 95. Out of the sample size of 95, 84 responses were fit for analysis. Collated data were analyzed using tables and simple percentages. Stated hypotheses were tested using the Multiple Regression Analysis at 0.05 level of significance in SPSS version 21. The tests showed that the null hypotheses were rejected and the alternative hypotheses accepted, thereby concluding

that significant relationship exists between stress and employee performance. Based on the outcome of the study, the researchers recommended among others, that no matter the level of stress; identifying stressors early, being aware of one's personality, creating positive outlook towards others and the environment, and maintaining emotional stability would help one to avert the negative effects of stress.

METHODOLOGY

It used a survey research design that incorporate the study population in which the sample size was derived using purposive sampling techniques. The items that was used in measuring each variable in this study will be adapted from various sources to fit the aims of this work. Data collected will go through series of pre-tests to ensure they do not violate the assumptions of multiple regressions. The pre-tests that was carried out on the collected data.

The data used in this research study was primary data collected through a structural questionnaire. The researcher visited the six (6) sampled tertiary institutions in Edo State, and administered the questionnaires personally with the help of the academic staff in the schools requesting to complete it as truthfully as they can. The completed copies of questionnaire were collected immediately after the respondent completed the questionnaires. The questionnaire was developed by the researcher on the basis of the research question and it was divided into three parts. Part one comprises of general information resulting to the respondents; part two is designed to get information on employees' stress and part three is structured to get data on organizational productivity. A total of 376 questionnaire were administered to respondents out of which only 91% (i.e.343 were duly filled and returned. i.e. the respondents of University of Benin, Benin City received 202 questionnaires out of which 182 were filled and returned, Institute of Technology and Management, Usen, received 15 questionnaires out of which 15 were filled and returned, Ambrose Alli University Ekpoma, received 59 questionnaire out of which 50 were filled and returned, College of Education, Igueben received 10 questionnaire out of which 10 were filled and returned, Auchu Polytechnic, Auchu received 72 questionnaires out of which 68 were filled and returned, and Igbinedion University, Okada received 18 questionnaires out of which 18 were filled and returned and this will bring a total of 343 questionnaires retrieved from the respondents in the six (6) selected tertiary institutions in Edo State, Nigeria which the research analysis was based.

The population of the study consist of 17 accredited tertiary institution in Edo State, Nigeria as at 31st December, 2025 with a total academic staff of 8159. Table 1. Below shows the distribution of staff:

Table 1. List of Tertiary Institution and Number of Academic Staff in Edo State, Nigeria

S/No	Institutions	No of Staff
1	Edo State University Uzairue	292
2	University of Benin, Benin City	3366
3	Ambrose Alli University, Ekpoma	982

4	Glorious Vision University, Ogwa	160
5	Igbinedion University Okada	799
6	Wellspring University, Edo State	125
7	Benson Idahosa University, Benin City	288
8	Mudiame University, Irrua	42
9	Auchi Polytechnic, Auchi Edo State	1189
10	Edo State Institute of Technology and Management, Usen.	249
11	Shaka Polytechnic, Benin City, Edo State	126
12	Light House Polytechnic, Evbuobanosa	59
13	Kings Polytechnic, Ubiaja	61
14	National Institute of Construction Technology, Uromi	54
15	Edo State College of Education, Igueben	159
16	Edo State College of Agriculture, Iguoriakhi	90
17	Federal College of Education, Ekiadolor, Benin	118
	Total Population	8159

Field Survey, (2025)

The table above is a list of all the tertiary institutions in Edo State. Among the six states in the South-south geo-political zone, Edo State boasts the largest number of tertiary institutions, a scenario that arguably justifies its choice for the study.

Therefore, the target population of this study consists of academic staff of the six (6) selected tertiary institutions, which is 6237. Out of which the designed sample n=369 was obtained from the Taro Yamane formula cited in Omoankhnen and Osagie (2007). The assumption is that the sample is representative of the population.

Sample size formula:

$$n = \frac{N}{1+N(e)^2}$$

Where: n = sample size

N= population size

e= sample error level of significance

l = constant

$$n = \frac{6237}{1 + 6237(0.05)^2}$$

$$n = \frac{6237}{1 + 6237(0.0025)}$$

$$n = 376$$

The minimum sample size for this study is three hundred and seventy-six academic staffs (376).

Purposive sampling techniques was used to select the number of tertiary institutions in Edo State used for this study because for easy availability of data, convenience, interest of the researcher and quick access to information for intensive study on the principles that they can be representative of the entire population used for the study. Taro Yaman's statistical formula was used in determining the sample size, the techniques is scientific hence is objective in nature. The sample size is 376 was chosen without any deliberate discrimination. That every academic

staff in the six (6) selected tertiary institutions in Edo State had an equal chance to be included in the study. The table below presents institutions and their respective numbers of academic staff.

Table 2. List of Sampled Institution for the study

S/No	Institutions	No of Staff	Sampled Across Institution
1	Igbinedion University Okada	292	18
2	University of Benin, Benin City	3366	202
3	Ambrose Alli University, Ekpoma	982	59
4	Edo State Institute of Technology and Management, Usen	249	15
5	Auchi Polytechnic, Auchi Edo State	1189	72
6	Edo State College of Education, Igueben	159	10
	Total Sample	6237	376

Field Survey, (2023)

The survey structured questionnaire to gather the needed information from respondents. The questionnaire utilized for this study was adapted from various sources to fit the aims of this work. Questions developed by Orji and Yakubu (2020) and Onu, Agu and Iloka (2022) were adapted and modified to measure physical stress, psychological stress, emotional stress, environmental stress, economic stress and employees' productivity with 5-items each. The questionnaire were divided into three sections, Section A ask question on demographic distribution of respondents, section B ask question on employees' stress (Physical stress, Psychological Stress, Emotional Stress, Environmental Stress, Economic Stress) and section C provide questions on organizational productivity. All questions were close ended form.

A 5-point Likert scale of 1 to 5 was used to measure the extent to which the various respondents agreed or disagreed with the issues raised. i.e. Strongly agree (SA) = 5; Agree (A) = 4, Undecided (U) = 3, Disagree (D) = 2, Strongly Disagree (SD) =1 which is based on the study of Apolot (2012).

Model Specification

Orji and Yakubu (2020) econometric model will be adapted and modified for this investigation in the manner described below.

$$OP=f(ES)$$

$$OP = \alpha_0 + \beta_1 ES +$$

$$Ut.....eqn. 1$$

Where:

OP = Organisational Productivity

ES = EMPLOYEES' STRESS

α = constant

β = co-efficient of the independent variables

U = error term

The specific models will be as follows:

$$OP = \beta_0 + \beta_1PHYS + \beta_2PSYS + \beta_3EMOS + \beta_4ENVS + \beta_5BECOS + \epsilon_i; \dots \dots \dots (ii)$$

Where:

OP= Organizational Productivity of tertiary institution in Edo state, Nigeria (dependent variable)

PHYS = Physical Stress (Independent Variable)

PSYS = Psychological Stress (Independent Variable)

EMOS = Emotional Stress (Independent Variable)

ENVS= Environmental Stress (Independent Variable)

ECOS= Economic Stress

ϵ = error term

β_0 = constant term

$\beta_1 - \beta_5$ = **coefficient**

t = time covered in this study (2025)

$\beta_1 - \beta_5 > 0$

To ensure the validity of the questionnaire, the questionnaire together with the objective of the study and hypotheses were sent to two experts and specialists in the field of research at Faculties of Management Sciences. This was to establish that the instrument was the appropriate one for measuring the variables contained in the study. The instrument was judged to have both face and content validity. The opinions and advice of these experts and specialists were highly considered in preparation of the final draft of the questionnaire.

The reliability test has been carried out through a Cronbach Alpha value, which is scaled from 0 to 1. The higher the value indicates that response value are consistent with participants. It indicates that response can be relied on to pass judgment.

Table 3: Estimate of Reliability Test

Reliability Statistics	
Cronbach's Alpha	N of Items
0.729	6

Source: Researcher's Computation (2025)

The Cronbach Alpha value of 0.729 shows that responses and data generated are highly reliable and can enhance judgment and statistical inference.

The collected data undergo preliminary analysis. The data were tested for missing values. Missing values were replaced using mean substitution. The SPSS statistical software is used to enhance descriptive analysis and statistical inference of accepting or rejecting the null hypothesis with least square regression analysis that produces a P-value. Diagnostic and reliability test were also executed to enhance reliability of the response and predictive prowess of the model.

Table 4. Shown distribution and return rate of the questionnaire

Distribution of Questionnaire	Work	Administration	Finance & Treasury	Sales & Marketing	Transport	Total	Percentage (%)
Number Returned	170	53	30	50	30	343	91.22
Number Not Returned	13	10	02	05	03	33	8.77
Total Distribution	183	63	32	55	33	376	100

Source: Field Survey, 2025

From Table 4., it is shown that 33 out of which 376 copies were returned (91.22 percent), while 33 copies (9 percent) of the questionnaire were not returned. This goes to foster effective knowledge of employee stress and organizational productivity of the institutions studied.

Table 5: Questionnaires Analysis

The number of distributed questionnaires and the questionnaires returned are expressed below:

Questionnaires	Frequency	Percent
Total questionnaires distributed	376	100
Total retrieved	343	0.91
Total not retrieved	33	0.09

Source: Analysis of field study (2025)

The table 4.1 above depict that 91% of distributed questionnaires were retrieved while 9% were not retrieved.

Table 6: Examination of Responses of Employees' Physical stress on Organizational Productivity of Tertiary Institutions in Edo state, Nigeria

QUESTION	Hypothesis 1) Employees' Physical Stress and Organisational Productivity of Tertiary Institution in Edo State, Nigeria						Mean score	Rank
	SA	A	U	D	SD	Sum		
1	150	133	29	23	8	1423	4.1487	1st
2	149	105	36	38	15	1364	3.9767	5th
3	138	116	58	21	10	1380	4.0233	4th
4	148	102	36	33	12	1382	4.0292	3rd
5	141	121	42	20	7	1422	4.1458	2nd

Source: Analysis of field study (2025)

Table .6 above revealed that role ambiguity resulting in physical stress that impact organization productivity ranks 1st with a mean score of 4.1487; The need for accelerated growth of staff from one grade level to the other create physical stress; Physical stressors like Fatigue, noise pollution, radiation, inadequate lighting, affects employee productivity; Illness, physical injury, trauma, leads to absenteeism; and work overload, excess exertion, intense

physical labour creates physical stress; with mean scores of 4.1458, 4.0292, 4.0233 and 3.9767 respectively ranks 2nd, 3rd, 4th and 5th respectively.

Table 7: Examination of Responses of Employees' Psychological stress on organizational Productivity of Tertiary Institutions in Edo state, Nigeria

QUESTION	Hypothesis 2) Employees' Psychological Stress and Organizational Productivity of Tertiary Institution in Edo State, Nigeria	INSTITUTIONS						Mean score	Rank
		SA	A	U	D	SD	Sum		
1	The use of disciplinary measures enhances staff loyalty and reduces psychological stress.	154	103	49	30	7	1396	4.07	5 th
2	Headache, anxiety, panic attacks, unrealistic targets result to psychological stress.	128	146	46	15	8	1420	4.14	2 nd
3	The presence of proper health insurance scheme reduces psychological stress.	131	138	42	24	8	1409	4.108	3 rd
4	Poorly structured sanctioning system increases psychological distress.	143	137	43	14	6	1368	4.163	1 st
5	Wrong placement of staffs results in psychological stress.	140	125	50	21	7	1409	4.108	3 rd

Source: Analysis of field study (2025)

Table 7. above revealed that poorly structured sanctioning system increases psychological distress ranks 1st with a mean score of 4.163; head-ache, anxiety, panic attacks, unrealistic targets result to psychological stress; the presence of proper health insurance scheme reduces psychological stress; Wrong placement of staffs results in psychological stress; and the use of disciplinary measures enhances staff loyalty and reduces psychological stress with mean scores of 4.14, 4.108, 4.108 and 4.07 respectively ranks 2nd, 3rd, 3rd and 5th respectively. This implies the use of disciplinary measure as a basis of enforcing productivity is not yielding the required output because it creates stress and pressure on employees' efficiency.

Table 13: Institutions Distribution

	INSTITUTIONS			
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	AAU	50	14.6	14.6
	AUCHI	68	19.8	34.4
	COE	10	2.9	37.3
	IJO	18	5.2	42.6
	UNIBEN	182	53.1	95.6
	USEN	15	4.4	100.0
	Total	343	100.0	100.0

Source: Analysis of field study (2025)

Table 13. indicate that 14.6% of the respondents are from Ambrose Alli University, 19.8% are from Auchi Polytechnic, Auchi, 2.9% are from College of Education, Igueben, 5.2% are from Igbinedion University Okada, 53.1% are from University of Benin, and 4.4% are from Institute of Technology and Management, Usen.

Table 14: Status Distribution

	STATUS			
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	ACADEMIC	212	61.8	61.8
	NON-ACAD	131	38.2	100
	Total	343	100.0	100.0

Source: Analysis of field study (2025)

61.8% of respondent were academic staff and 38.2% are Non-Academic Staff, 7.8% which implies that respondents are educated enough to comprehend the requirements of the questionnaires that is assisting in making inferential decisions.

Table 4.11 Qualification Distribution

	QUALIFICATION			
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	BSc./HND	84	24.5	24.5
	High Sch/OND	37	10.8	35.3
	MSc.	123	35.9	71.1
	Ph.D	99	28.9	100.0
	Total	343	100.0	100.0

Source: Analysis of field study (2025)

The respondents that have bachelor degree/Higher National Diploma 24.5%, the with Higher School Certificate and Ordinary National Diploma has a proportion of 10.8%. Respondents with Master's Degree has 35.9% and respondents with Philosophy of Science degree has 28.9%. This represents the examination of the distinctive element or characteristics of the independent and dependent variables under investigation.

Table 15: Descriptive Statistics

Descriptive Statistics		OP	PHYS	PSYS	EMOS	ENNS	ECOS
N	Valid	343	343	343	343	343	343
	Missing	0	0	0	0	0	0
Mean		4.5714	4.0682	4.1073	4.0933	4.0513	4.0659
Std. Error of Mean		0.03600	0.02348	0.02485	0.02379	0.02332	0.02406
Median		5.0000	4.2000	4.2000	4.2000	4.0000	4.0000
Mode		5.00	4.20	4.40	4.20	4.20	4.20
Std. Deviation		0.66667	0.43489	0.46027	0.44054	0.43197	0.44561
Variance		0.444	0.189	0.212	0.194	0.187	0.199
Skewness		-1.931	-0.343	-0.555	-0.449	-0.378	-0.354
Std. Error of Skewness		0.132	0.132	0.132	0.132	0.132	0.132
Kurtosis		5.325	-0.342	0.317	0.111	-0.116	0.004
Std. Error of Kurtosis		0.263	0.263	0.263	0.263	0.263	0.263
Minimum		1.00	2.80	2.40	2.60	2.60	2.60
Maximum		5.00	5.00	5.00	5.00	5.00	5.00
Sum		1568.00	1395.40	1408.80	1404.00	1389.60	1394.60

SOURCE: Researchers' Compilation (2025)

The mean and median value of organizational productivity (OP) of tertiary institution in Edo state, Nigeria as measured are 4.5714 and 5 respectively indicating that respondents strongly agree that organizational productivity of tertiary institution in Edo state, Nigeria is relatively high. The kurtosis value of 5.325 that measures the peakedness or tailedness of a distribution tend to be leptokurtic or tall tailed that is it inhibit extreme values or outliers because this value is greater than the bench mark of 3. The skewness value of -1.931 shows negative skewedness which indicate asymmetric responses of respondents. The mean values of employees' physical stress have a value of 4.0682 which implies that averagely respondents agree that employees' physical stress affect organizational productivity of tertiary institution in Edo state, Nigeria. The kurtosis value of -0.342 and a skewedness value of -0.343 for PHYS indicates a short-tailed distribution or a platykurtic distribution that is negatively skewed and asymmetric in response. The Psychological stress (PSYS) mean value of 4.1073 shows that respondents averagely agree that psychological stress impacts organizational performance of tertiary

institution in Edo state, Nigeria. The kurtosis coefficients of 0.317 and a skewedness value of -0.555 indicate a short-tailed distribution with relative oscillating values and it tend to be platykurtic because the kurtosis is less than 3. The skewedness value of -0.555 that falls within the range of -0.5 to 0.5 which indicate a almost symmetric responses, The emotional stress (EMOS) with average and median value of 4.0933 and 4.2 respectively implies that respondents averagely agree that employees emotional stress impacts organizational performance of tertiary institution in Edo state, Nigeria. The kurtosis value of 0.111 with a skewness value of -0.449 indicate a platykurtic distribution which is short tailed and skewedness trending towards a symmetric response.

Environmental stress (ENVS) with mean value of 4.0513 and median value of 4 indicate that on average; respondent agree that environmental stress has an impact on organizational productivity of tertiary institution in Edo state, Nigeria. The skewedness coefficient of -0.378 and kurtosis of -0.116 indicate a short-tailed distribution which is platykurtic based on asymmetric distribution.

The mean and median value of socio-cultural factors are 4.0659 and 4 respectively indicating that respondents averagely agree that economic stress impact organizational productivity of tertiary institution in Edo state, Nigeria. The skewness value of -0.354 and kurtosis value of 0.004 indicate a platykurtic curve that inhibit responses that are asymmetrically distributed.

In an attempt to explore the relationship between variables used in the study, we carried out correlation analysis using Pearson product moment correlation method. The results are presented in the table below:

Table 16. Correlation Matrix

Correlations							
	OP	PHYS	PSYS	EMOS	ENVS	ECOS	
Pearson Correlation	OP	1.000	-0.066	0.114	-0.052	0.115	-0.074
	PHYS	-0.066	1.000	0.092	-0.137	-0.012	-0.014
	PSYS	0.114	0.092	1.000	-0.053	0.062	-0.011
	EMOS	-0.052	-0.137	-0.053	1.000	-0.020	-0.029
	ENVS	0.115	-0.012	0.062	-0.020	1.000	0.066
	ECOS	-0.074	-0.014	-0.011	-0.029	0.066	1.000

SOURCE: Researchers' Compilation (2025)

The variables interdependence is displayed in table 4.13 above. The correlation coefficient of a variable with itself is 1.000 which indicate that multicollinearity does not exist among variables that is the problem of independent variable predicting another independent variable is eliminated. The correlation or association between the exogenous variables and endogenous variable (Organizational Performance) are expressed as follows: physical stress, emotional stress, economic stress with respective Pearson product correlation coefficients of -0.066, -0.053, -0.011, -0.074 which are the independent variables have negative correlation with organizational productivity of tertiary institutions in Edo state, Nigeria measured. However, Psychological stress and environmental stress depicts a positive correlation with organizational productivity of tertiary institution in Edo state, Nigeria with correlation values of 0.114 and 0.115 respectively.

This is used to examine how much the variance of an independent variable is influenced by its correlation with other independent variables through an econometric method of variance inflation factor (VIF). If the value of a variable is one (1) which implies that variable is not correlated or if the VIF value lies between 1 and 5, it is seen as moderate correlation but if the value is greater than 5, it shows that variables are highly correlated. The values are expressed in table 4.14 below:

Table 17. Variance Inflation Factor estimates

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
PHYS	0.973	1.027
PSYS	0.986	1.014
EMOS	0.978	1.022
ENVS	0.991	1.009
ECOS	0.994	1.006

Source: Researcher's Computation (2025)

The variance inflation factor values of 1.027, 1.014, 1.022, 1.009, 1.006 with respect to Physical stress (PHYS), Physiological stress (PSYS), Emotional stress (EMOS), Environmental stress (ENVS), Economic stress (ECOS) respectively with values less than 5 implies that multicollinearity problem does not exist that is the variance of a particular independent variable does not influence by correlation with other independent variable in the econometrics model.

These include Durbin Watson test for autocorrelation of a regression model. If the value lies between 1.5 to 2.5 shows that there is no evidence of autocorrelation. The heteroskedasticity test demonstrates the model's validity by assessing whether or not the independent variable adequately explains the dependent variable, while leaving the remaining variance invariant. The Breusch-Pagan Test for Heteroskedasticity and White Test for Heteroskedasticity are used to assess the null hypothesis that a series of residuals exhibit no conditional heteroskedasticity. The Breusch-Pagan Test for Heteroskedasticity and White Test for Heteroskedasticity are also used to analyse volatility in time series in order to forecast future volatility. if the P-value is greater than 0.05; it implies that the model is not heteroskedastic but homoscedastic.

Table 18. Diagnostic Test Estimates

Diagnostic test	P-value	Significance Level	Decision
Breusch-Pagan Test for Heteroskedasticity	0.365	0.05	Homoskedastic
White Test for Heteroskedasticity	0.341	0.05	Homoskedastic
Durbin Watson Test for autocorrelation	1.597	Lies between 1.5 to 2.5	No Autocorrelation

Source: Researcher's Computation (2025)

The Durbin Watson test for autocorrelation of 1.597 that lies between the 1.5 to 2.5 threshold; and the Breusch Pagan Test for Heteroskedasticity with P-value of 0.365 and White Test for Heteroskedasticity with P-value of 0.341 is greater than the 0.05 level of significance indicate that there is no autocorrelation and the model is homoscedastic that is the explanatory variables can explain the dependent variables reliably.

This is used to predict the behaviour of the endogenous variables which indicate the line of best fit that enhances prediction with significant accuracy. The rejection or

acceptance of the null hypothesis will be based on the below estimates in table 4.16.

Table 19. Pooled Least Squares Regression Estimates

Dependent Variable: OP					
Method: Linear Regression					
Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.095	0.384		8.068	0.0000
PHYS	-0.086	0.055	-0.084	-1.561	0.0196
PSYS	0.122	0.059	0.111	2.066	0.0396
EMOS	-0.051	0.048	-0.058	-1.071	0.2848
ENVS	0.110	0.053	0.112	2.084	0.0379
ECOS	-0.076	0.049	-0.083	-1.559	0.0199
R-squared	0.786971				
Adjusted R-squared	0.791535				
Durbin-Watson	1.597				
Eigenvalue	57.317%				

Source: **Researcher’s computation 2025**

The Durbin-Watson (DW) statistics of 1.597 which is lies between 1.5 to 2.5 implies that the auto-correlation is within the normal region which aid co-integration and enhance the relationship between the dependent and exogeneous variables. The DW result also indicates that stochastic dependence between successive units of the error term is unlikely in the model. The standard error value of 0.055, 0.059, 0.048, 0.053, 0.049 with relative to physical stress, psychological stress, emotional stress, environmental stress, economic stress in the model is used to control the issue of heteroskedasticity which shows the prowess of the explanatory variable explaining the dependent variable and the variance of the unexplained portion remains constant or standard error is constant. The Eigenvalue that indicates the explained variance of the independent variable on the variance of dependent variable. The higher the Eigen value percentage the better the model therefore the value of 57.317% indicate that the independent variable explanation of the dependent variable of organisational productivity of tertiary institution in Edo state, Nigeria. This supported by the R-square value of 78.69% which also shows the proportion of change in the dependent variable (organizational productivity of tertiary institution in Edo State, Nigeria) caused by change in the independent variables of physical stress, psychological stress, emotional stress, environmental stress, economic stress. Furthermore, in order to make deductive inference; the null hypothesis will be rejected when the P-value is less than the critical value of 0.05 level of significance and the alternative hypothesis is accepted.

However, employees physical stress (PHYS) has a negative association with a significant impact on organisational productivity with coefficient values of -0.086 and P-value of 0.0196 which is less than 5% level of significance. Due to this the null hypothesis (1) which states that employees physical stress does not have significant impact on organisational productivity in Edo state, Nigeria is rejected. The coefficient value of 0.122 and P-value of 0.0396 with respect to psychological stress (PSYS) which is less than 0.05 critical value indicates that employees’ psychological stress has a positive relationship and a significant impact on organisational productivity in Edo state, Nigeria. This implies that the null hypothesis (2) is rejected.

Employees’ emotional stress exhibited a negative relationship with organisational productivity in Edo state, Nigeria with a coefficient value of -0.051 and the impact of employees’ emotional stress on organisational productivity of tertiary institution in Edo state, Nigeria was insignificant

with P-value of 0.2848 that is greater than the critical value of 0.05. Therefore, the null hypothesis (3) is accepted.

The coefficient value of 0.110 and P-value of 0.0379 indicates that employees’ environmental stress (ENVS) has a positive association and a significant impact on organisational productivity of tertiary institution, in Edo state, Nigeria. Therefore, the null hypothesis (4) that implies that environmental stress does not have significant impact on organisational productivity in Edo state, Nigeria is rejected and alternative accepted because the P-value is less than 0.05 level of significance.

However, employees’ economic stress (ECOS) on the other hand has a negative association and a significant impact on organisational performance of tertiary institution in Edo state, Nigeria based on the coefficient value of -0.076 and a P-value of 0.0199 at 5% significance level. Due to this the null hypothesis (5) is rejected and alternative hypothesis that signifies that employees’ economic stressor impact organisational productivity is accepted because the P-value is less than 0.05 level of significance.

Discussion of Findings

Evidence from the study shows that employees’ physical stress has a negative and significant impact on organizational productivity of tertiary institution in Edo State there by accepting the alternative hypothesis which state the physical stress of employees impact its productivity in the organization. This is in-line with the study of Okeke et al. (2016) on “the effects of stress on employee productivity” that shows a negative association and significant impact of employees’ physical stress on organizational productivity in the Nigerian banking industry.

Psychological stress of employees has a positive association and a significant impact on organizational productivity of tertiary institution in Edo state thereby rejecting the null hypothesis, which explicitly state that psychological employees’ stress does not impact organizational productivity. This is also in line with the study of Ehsan and Ali (2019) on “the impact of work stress on employee productivity: based in the banking sector of Faisalabad, Pakistan” whose study revealed a positive explanatory prowess and a significant impact of employees’ psychological stress on organizational productivity of banks in Pakistan.

The employees’ emotional stressor revealed a negative and insignificant impact on organizational productivity of tertiary institution in Edo state which implies that the alternative hypothesis will be rejected that is employees’ emotional stress does not impact organizational productivity. This is re-affirming the study of Olusesi et al. (2020) on “occupational stress on employees’ performance among National Union of Road Transportation Workers in Ilorin metropolis, Nigeria” and Ahlam and Hassan (2012) study on “factors associated with occupational stress and their effects on organizational performance in a Sudanese university” that exhibited a negative relationship between emotional stressor components on organizational productivity but the impact was significant.

Likewise, environmental stressors of employees in this study expressed a positive association and a significant impact on organizational productivity thereby accepting the alternative hypothesis that categorically state that environmental stressors of employees have a significant effect on organizational productivity. This same position is projected by the study of

Harmen et al. (2019) on “sources of job stress dimension effect on employee performance (Case in Health Social Security Organizer Agency Medan, Indonesia)” which revealed that environmental stress of employees has a significance impact on performance of employees or its organizational productivity.

Furthermore, economic stress of employees has a positive association and a significant impact on organizational performance of tertiary institution in Edo state, Nigeria due to this the null hypothesis which state that employees economic stress does not have significant effect on organizational productivity is rejected because its P-value is less than 0.05. it implies that economic stress significantly impacts organizational productivity. This position was also emphasized in the study of Akah et al. (2022) on “occupational stress and academic staff job performance in two Nigerian universities” which revealed that remuneration (economic stressor) has a significant impact on job performance or productivity of academic staff Nigerian universities but the association is positive which differs from this study position.

Table 19. Estimates:

		Test Statistics: least Square Regression Criteria			
Variables	Type of variable	Coefficient Value	P-Value	Association Significance Level	Decision
OP	DEPENDENT				
PHYS	Independent	-0.086	0.0196	-Significant	Reject the null Hypothesis
PSYS	Independent	0.122	0.0396	+Significant	Reject the null Hypothesis
EMOS	Independent	-0.051	0.2848	-non-Significant	Accept the null Hypothesis
ENVS	Independent	0.0110	0.0379	+Significant	Reject the null Hypothesis
ECOS	Independent	-0.076	0.0199	-Significant	Reject the null Hypothesis

Source: **Researcher’s computation 2024**

Summary of Findings

However, based on the broad objective of this study, which is to comprehensively evaluate employees’ stress and organizational productivity of tertiary institution in Edo state, Nigeria. Therefore, empirical analyses have been conducted and findings have been discussed. Based on the result from the tactical evaluation of this study, the following were exposed:

1. There is significant positive effect of physical stress on the organizational productivity of selected tertiary institutions in Edo State.
2. Employees’ psychological stressors have significant positive effect on organizational productivity of selected tertiary institutions in Edo state.

Conclusion

The need to evaluate the organizational productivity of tertiary institution in Edo state, Nigeria, needs to be emphasized with respect to how employees’ stressor creates a significant or insignificant impact. However, the factors challenging organizations are both internal and external that has been revealed by different studies. Orji and Yakubu (2020) investigated employees’ stress that included psychological stress, emotional stress, environmental stress and economic stress impact on employees’ productivity in Nigeria public institution. Further, this study empirically examines the impact of employees’ stress on organizational productivity of tertiary institutions in Edo state, Nigeria.

Recommendations

Furthermore, based on the evidence from the empirical analysis and findings of the study, the preceding recommendation are made:

1. The study recommends that tertiary institutions in Nigeria should employ innovative processes like physical activity adjustment that suite the employees capacity to deliver within the organization mandate that eradicate over-exertion or use of intense physical labour, processes that create a form of healthy safety nets, and office climate that allows for innovation and self-development that enhances productivity.
2. This study also recommends that tertiary institutions in Nigeria should create a counselling unit that has specialist in the field of cognitive behavioral interventions in order evaluate employees emotional and psychological needs; so that such needs requirement can be quickly managed with utmost good faith which is expected to engineer productivity.

Reference

Ebhote Oseremen, Friday Ohiokha, **ODIWO, Williams Omokhodu**, Godwin Ohiokha and Dabor Alexander Omowumi (2022). Empirical analysis of the effect of work stress on employee productivity in the banking industry. *Problems and Perspectives in Management*, 20(3), 117-129.

Abu K. A. & Ahmad, P. (2013). The antecedents affecting employee engagement and organizational performance. *Asian Social Science*, 9(7), 15-18

Aladesoun, C.B, Ayoade, A.A, Adegbola, M.M., Olaniyan I.H, & Akinde, B.O (2020). Role of Strategic Decision Making on Employees Productivity. *Journal of Management (IJM)*. 5, (7), 456-567

Bunmi A.C, Adewuyi A.A, Makinde A.M , Olaniyan, I. H, Onyi A.B (2020). Role of Strategic Decision Making on Employees Productivity. *International Journal of Academic Information Systems Research*. 4(8), 2643-9026

Johne, A. (1999). Successful Market Innovation. *European Journal of Innovation Management*. 2(1), 6-11

Lăzăroiu, G. (2015). Work motivation and organizational behaviour. *Contemporary Readings in Law and Social Justice*, 7(2), 66-75.

Manokha, I. (2020). The implications of digital employee monitoring and people analytics for power relations in the workplace. *Surveillance and Society*, 18(4), 540–554.

Martin K. (2021). The implications of digital employee monitoring and people analytics for power relations in the workplace. *Surveillance and Society*, 18(4), 540–554.

Olannye, P. A. (2006). *Research Method for Business: A Skill Building Approach*, Lagos and Asaba: Pee Jen Publications.

Parashar, M., Singh, S.M. (2005). Innovation Capability, *IIBM Management Review*, 115-123.

Shinnar, R. S., Giacomini, O. & Janssen, F. (2012). *Entrepreneurship perceptions and intentions: The role of gender and culture*. Entrepreneurship Theory and Practice. Baylor University.

Shivani, M.P Ainish D. & Nelson .D. (2021) A Study on Employee's perception on Employee Monitoring. *Journal of Emerging Technologies and Innovative Research (JETIR)*. 8 (6) 2349-5162