

# Effect of Stress on Employees' Productivity in the Manufacturing Sector: A Study of Selected Manufacturing Firms in Anambra State, Nigeria

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**Abstract:** *The study examined the effect of stress on employees' productivity in the manufacturing subsector of the economy by using selected manufacturing firms in the three industrial zones of Anambra State, namely; Awka, Onitsha and Nnewi as the study area. The study adopted descriptive survey design. From a population of 497 senior employees of the selected firms, a sample of 222 was estimated through the application of Taro Yameni's statistical formula. Major statistical tools of analysis were summary statistics, Pearson correlation and multiple regression. Major findings indicate that work overload, unfriendly organizational and inadequate employees' remuneration have significant and negative effect on employees' productivity both individually and collectively. The study concludes that employees under stress are much less inclined to channel energy into continuous improvement initiatives or creative problem solving- pursuits, hence stress has significant negative effect on employees' productivity. It was recommended among others that supervisors in the organization must always assess the levels of their subordinates' capabilities, knowledge and skills to ensure that they would be able to meet up with their deadlines. They agree on a performance contract so that tasks assignment will be to the ability of the employee to avoid situations of unnecessary work overload.*

**Keywords:** Work Stress, Employee Productivity and Manufacturing Sector

## 1.1 Background to the Study

In today's technology driven work environment many employees are lured into accepting multiplicity of tasks which ordinarily may not have been accepted. This, they do, with the belief that their roles may be limited to coordination and supervision of what machines are doing, especially in the manufacturing sector where the use of machine is quite pronounced. Little did they know that they would be as involved as they would have worked without machine-aided production activities. According to Iqbal and Khan (2012), in today's modern organization, there is a requirement for employees to perform multiple tasks in the workplace to keep abreast with changing technologies and it ultimately result is work pressure which is a prominent source of stress. Kishori and Verma (2018) posit that stress is an unwanted reaction people have through severe pressures or other types of demands placed upon them.

Work overload, unfriendly organizational climate and inadequate monetary reward are serious sources of stress for the employee. For instance, work overload problem is a result of unbalanced job demands and it leads to stress (Mindell, 2019). According to Kavitha (2017), having too many works to attend to is an unconscious problem that creates stress and people always tend to overlook the problem when they experience it. But it has been established that the inconsistent overloaded work is one of the major factors that cause stress for the employees at the workplace because many working groups and their leaders may differ based on individual group arrangement (Saijo et al, 2018). It is also true that an individual works for longer hours than necessary as a coping strategy to complete the work assignment and by so doing, he/she is likely to encounter stressful situation. As Kiani, Borjali and Farahbaksh (2012) observed, such a situation leads to both mental and physical exhaustion which apparently reduces initiative and could lead to different health challenges.

Similarly, low pay and unfriendly organizational climate have remained top factors in driving workplace stress. This is according to the American psychological Association's latest Work and Wellbeing Survey. In the survey, more than 56 percent of the respondents say their low salary has a significant negative impact on their stress levels. In a related development, non-participative organizational structure is an indication that the work environment is not sufficiently conducive as a result of the vertical structure of the organization and under such an atmosphere, there is no doubt that workers in such situations are being challenged by different levels of stress. In the light of the above, this study tries to explore the relationship between the identified stress factors and employees' productivity of selected firms in the manufacturing subsector of the Nigerian economy.

## 1.2 Statement of the Problem

All over the world, organizations, especially those in the manufacturing sector are experiencing unprecedented levels of stress on their employees and it is having negative effects on their productivity and overall organizational performance in different dimensions, including financial performance. However, it is not as if these organizations are not aware of such situations but they are always beclouded by the desire for higher accomplishment even in the face of health challenges as a result of job stress. Indeed, some factors have been identified as high stress producing factors among the employees and the include but not limited to the following: work

overload, poor organizational climate, inadequate remuneration, employee role conflict, work-life balance, etc. For the purposes of the present study, concentration is on work overload, organizational climate and inadequate employee remuneration as likely areas of stress which could prevent the employees from being optimal in productivity in their respective organizations.

### 1.3 Objectives of the Study

The main objective of the study is to examine the effect of stress on employees' productivity in selected firms in the manufacturing sector of the Nigerian economy. Three firms were selected from the three industrial zones of Anambra State namely; Awka, Onitsha and Nnewi. The specific objectives are to:

- (i) Determine the effect of work overload as a stress factor on employees' productivity in the manufacturing firms.
- (ii) Ascertain the effect of unfriendly organizational climate as a stress factor on employees' productivity in the manufacturing firms.
- (iii) Evaluate the effect of inadequate remuneration as a source of stress on employees' productivity in the manufacturing firms.

### 1.4 Research Questions

The following research questions were raised to guide the study:

- (i) What is the effect of work overload as a stress factor on employees' productivity in the manufacturing firms?
- (ii) How does unfriendly organizational climate as a stress factor affect employees' productivity of manufacturing firms?
- (iii) What is the effect of inadequate remuneration as a source of stress on employees' productivity in a manufacturing firms?

### 1.5 Statement of Hypotheses

The following null hypotheses were formulated to guide the objectives of the study as well as strengthen the analysis:

- (i) Work overload as a factor of stress does not have significant and negative effect on employees' productivity in manufacturing firms.
- (ii) Unfriendly organizational climate as a stress factor does not have significant and negative effect on employees' productivity in manufacturing firms.
- (iii) Inadequate remuneration as a source of stress does not have significant and negative effect on employees' productivity in manufacturing firms.

### 1.6 Significance of the Study

The study has both theoretical and empirical significance. Theoretically, the body of literature would be enriched thereby expanding the frontiers of knowledge in the area. Empirically, one of the categories of people that would benefit from the findings of the study is the management as they would be given insight on how employees' sources of stress can be reduced. Similarly, employees would be sufficiently enlightened on how they can avoid stressful situations to maintain healthy working experience. Finally, students/researchers who might want to carry out further studies on stress related areas will find the report very interesting because the data will serve as a good base for the studies.

### 1.7 Scope of the Study

The study covers the manufacturing sector in Anambra State, especially the three industrial zone of Awka, Onitsha and Nnewi environs. Many areas have been identified as the sources of employees' stress but work overload, negative organizational climate and inadequate remuneration are of interest in this study. The study sought to determine the effect of the listed various sources of stress on employees' productivity in the organizations selected for the study.

## REVIEW OF RELATED LITERATURE

### 2.1 Conceptual Review

#### 2.1.1 Concept of Work Stress

The term stress was first employed in another different context (biological) by the endocrinologist, Hans Selye in the 1930s. He later widened and also popularized the concept to include inappropriate physiological response to any demand. To him, the concept refers to a condition and the stressor to stimulus causing it. It covers wide range of phenomena, from mild irritation to drastic dysfunction that may cause severe health problem. According to Robbins (2004) cited in Daniel (2019), stress is a dynamic condition in which

an individual is confronted with opportunity, constraint or demand related to what he desires and for which the outcome is perceived to be both uncertain and important. From the above definition however, one can say that stress is not necessarily bad as it also has positive value when it offers potential gain. Moorhead et al (1998) equally define stress as a person's adaptive response to a stimulus that places physical and psychological demands on a person.

But on another level, Taylor (1995) describes stress as a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioural changes that are directed either towards altering the events or accommodating its effects. In a similar vein, Benneth (1994) defines it as a wide range of physical and psychological symptoms that result from difficulties experienced by an individual while attempting to adapt to an environment. Thus showing that the potential for stress exists when an environmental situation presents a demand threatening to exceed a persons' capabilities and resources. From the foregoing definitions, stress can best be seen as excessive demands that affects a person physically and psychologically. Hence the mental or physical conditions that result from perceived threat or danger and the pressure to remove it.

### **2.1.2 Concept of Employee Productivity**

Conceptually, productivity has been viewed as the quantity of work that can be accomplished in a given period of time by means of the factors of production. Such factors include technology, capital, land, labour and entrepreneurship. It has formally been described as the link between inputs and outputs and of course, increases when an increase in output occurs with a lesser than comparative increase in input (Bhatti, 2007). Qureshi (2007) was of the opinion that productivity is a measure of performance that encompasses both efficiency and effectiveness. He clarifies that productivity can be referred to as the ratio of output or production capacity of the workers in an organization. On another note, employee productivity is defined as an assessment of value generated by an individual employee within a specific time period (Fako, 2010). Therefore, productivity has to do with the efficiency and effectiveness of an employee in an organization in terms of output.

## **2.2 Theoretical Framework**

The underpinning theory for this study is the Person-Environment (P/E) Fit Theory. Person-Environment account of stress process came from the early works and theories of Lewin (1935) and Murray (1938). The basic issue in the theory is that stress arises from a misfit between person and environment – not from the two components separately but as the factors of each relate to one another. As it is, when employees perceive that their work environments are not good or do not fit well with the needs, wants and desires that they would like to fulfill from their work, such discrepancies tend to create diverse strains, which are then hypothesized to affect workers' health and wellbeing. Observe that environmental demands here include organizational climate, employee remuneration, workload, role requirement, etc. However, such demands will depend on individuals' abilities represented in aptitudes, skills, training, time and energy, which the person(s) use to meet the demands. The theory's take, as could be seen, is that the larger the discrepancy between person and "environment", the greater the likelihood that strain will occur and a need for coping will arise.

## **2.3 Extant Literature**

Stress is a universal experience in organizations across the globe and if it is not properly managed, it affects both employees' productivity and organizational goal attainment (Imtiaz and Ahmad, 2009). Better managed employees are more cooperative and they serve as important assets to the organization. However, when the sources of employee stress are ignored by the management in an organization, the employees often respond with all kinds of negative work behaviours such as absenteeism, lateness to work, low motivation and in extreme cases, employee turnover (Ajayi, 2018).

Many sources of employee stress have been identified and one of them is work overload. It means concentration of huge amount of tasks on an employee. When he/she is unable to cope with the task allocated to him/her, stress will start to manifest with its attendant job disruption ending in low productivity (Ali, Raheem and Nawaz, 2014). According to Idris (2011), work overload situation arises whenever an individual or employee is expected to do more than the available resources such as time and human or mental capabilities that can actually carry and that it lowers the performance rate of the employee. Therefore, in an attempt to make the employee accomplish more by assigning tasks more than necessary, the employee ends up being overloaded with negative consequences for the organization.

In a related development, organizational climate impacts on employees' productivity depending on the nature, that is, whether the climate provides conducive atmosphere or otherwise. Organizational climate or work environment influences the employee behaviour and job related-attitudes. It describes the perception of the employees toward their organization, and it links to work attitudes formation (Singh and Dhawan, 2012). In their opinion, stressful organizational climate are more than anything else characterized by limited or no participation in decision-making, employees not informed of the policies, standard and normal feedback (rather than rewards and positive feedback), conflicts at workplace and confrontations among others. On the contrary, friendly organizational climate is supportive, nurturing, stress free employees at all levels thereby positively affecting the quality and quantity

of task performance in the organization, which leads to job satisfaction and employee commitment to the realization of organizational goals (Lan, 2020).

Inadequate employee remuneration is a source of stress in many organizations. Employees have always cited being paid inadequately as the biggest stressor in their work life. The implication is that employees would like to be adequately compensated for their contributions in the organization otherwise, unhealthy condition will arise. It must be noted that reduction in stress causing factors is correlated with improved business outcomes, including improved productivity and reduced turnover. Apparently, a healthy worker is a productive worker. As the American Psychological Association (2021) has put it, a healthy workplace is important to a range of stakeholders-employers, employees, customers, suppliers and the society stand to gain immensely. Ajibade (2021) equally posits that adequate remuneration for the employees reduces the volume of stress that the workers may have to handle in the course of performing their assigned tasks in the organization. What this opinion suggests is that commensurable pay has a neutralizing effect on other stressors either directly or indirectly.

## 2.4 Empirical Review

In a study to determine the effect of stress on employee productivity in an organization, Okeke, Ojan and Oboreh (2016) investigate the negative effects of stress on employee productivity in the banking sector. The study design was descriptive survey and major statistical tool of analysis was Chi-Square ( $\chi^2$ ) test of independence which was conducted at 0.05 level of significance. Findings suggest that workload pressure has significant negative effect on employee productivity. It reveals also that stress hinders effective performance of the employees. The study recommended among others that remedial measures need to be taken by the management to minimize the effect of job stress on employees' productivity. In a related study, Obi (2020) investigated the effect of stress on employees' productivity in selected manufacturing firms in the South-East of Nigeria. The study used descriptive survey design. The data were analyzed using descriptive statistics, and inferential statistics of correlation and multiple regression analysis. The findings indicate that work-family interaction exerts significant negative influence on employees' productivity. It was therefore concluded that workplace stress has significant negative effect on employee productivity in manufacturing firms in South-East, Nigeria. The study recommended among others that management should encourage employees to spend time with their families to avoid work-family related stress.

Awadh, Gichinga and Ahmed (2015) studied the effect of workplace stress on employees' performance in the county government in Kenya, using Kilifi County Government as the study area. The study made use of descriptive survey design. Pearson correlation was the major tool of analysis. The result showed that among others, salary was grossly inadequate for the employees and as a result, it negatively correlated with low job performance for the employees. The study concluded that workplace stress affects the performance of Kilifi County employees. Imtiaz and Ahmad (2009) investigated the impact of stress on employee productivity, performance and turnover as an important managerial issue. The study adopted survey method as its design. From correlation analysis of the data generated from the study, the result showed decrease in financial reward decreases employee productivity. It was concluded that higher level of stress exists with no managerial concern for solution and it increases employee frustration and consequently low productivity performance and tendency for turnover in the organization.

## METHODOLOGY

### 3.1 Research Design

The study adopted descriptive survey design because the data for analysis are principally primary. Secondly, a part of the population of interest was studied (sample) with the intention of generalizing the result for the entire population. Thirdly, survey method is very appropriate for studies of this nature when the data for analysis cannot be accessed from any statistical record in form of secondary data (official statistics) (Obasi, 2000).

### 3.2 Area of the Study and Population

The study covered major manufacturing firms in the three industrial zones of Anambra State namely; Awka, Onitsha and Nnewi. Accordingly, Juhel pharmaceutical company was selected from Awka Zone, Sabmiller Breweries PLC from Onitsha zone and Innoson Vehicle manufacturing was selected from Nnewi zone. Senior employees of the firms were the target population. From Juhel Pharmaceuticals, 137 were identified, from Sabmiller Breweries, 209 were identified and 151 came from Innoson Vehicle Manufacturing, Nnewi thus making a total of 497 senior personnel from across the firms in the study.

### 3.3 Sample Size Determination and Sampling Procedure

We used Taro Yameni's statistical formula in determining the sample size for the study as follows:

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

Where:

n = Sample size to be determined

N = The entire population identified for the study

$e$  = Error margin (0.05)

1 = Constant (unity)

Substituting in the formula, we have:

$$n = \frac{497}{1 + 497(0.05)^2} = 221.627647714$$

$$n = 222 \text{ (Nearest whole number)}$$

Thus, the sample size is 222 senior personnel of the selected firms.

The sampling technique is systematic sampling method. The method was chosen in place of other because it has capacity to evenly spread the sample across the population of interest given its unique attributes of random start and sampling interval. The method was used in selecting the units of observation.

### 3.4 Instrument for Data Collection and Reliability Test

An item structure instrument design in a Likert scale format of strongly agree, agree, disagree, strongly disagree and undecided was developed by the researcher and used in eliciting information from the respondents. Concerning reliability test, a test re-test method was used and the process involved giving 20 copies of the instrument to complete. After an interval of two weeks, the instrument was given to the same group of people to complete a second time. The first and second responses were collated and analyzed through the application of Spearman rank order correlation. The analysis returned coefficient of 0.83, 0.73 and 0.90 for the three research questions respectively with an average coefficient of 0.82 thus showing that the instrument is 82 percent reliable.

### 3.5 Method of Data Collection and Analysis

The researcher adopted direct questionnaire administration method and it afforded him the opportunity of assessing the understanding of the questionnaire items. It afforded him also the opportunity of making clarifications or explanations when necessary and it reduced the volume of non-response which often associate with surveys of this nature. Out of the 222 copies of the questionnaire issued out, 205 were completed and returned thus showing a response rate of 92.3 percent. The data gathered for the study were analyzed through descriptive and inferential statistics of correlation and multiple regression.

### 3.6 Model Specification

The functional relationship between the dependent and independent variables of the study was stated as follows:

$$EP = f(WOL, UOC, IER) \quad (1)$$

Specifying equation (1) in an econometric form, we have:

$$EP = \alpha_0 + \alpha_1 WOL + \alpha_2 UOC + \alpha_3 IER + \mu_t \quad (2)$$

Where:

EP = Employee productivity

$\alpha_0$  = The intercept

$\mu_t$  = Error term or white noise

WOL = Work overload

UOC = Unfriendly organizational climate

IER = Inadequate employee remuneration

$\alpha_1, \alpha_2$  and  $\alpha_3$  are the coefficients of the independent variables. The expected signs or *a priori* of the regressors are as follows:

$$\alpha_1 < 0, \alpha_2 < 0 \text{ and } \alpha_3 < 0$$

Thus, the coefficients are expected to have negative signs meaning negative relationship between the dependent and independent variables.

## DATA PRESENTATION AND ANALYSIS

### 4.1 Demographic Data of the Respondents

In this section of the analysis, personal data of the respondents such as gender, age, educational attainment, organization tenure, etc, were analyzed to determine the capacity of the respondents in discussing the issues surrounding job stress and employees' productivity in the organization.

**Table 4.1: Demographic Features of the Respondents**

S/N	Demographic Features		Frequency	Percentage of Total
1.	Gender:	Male	150	73.1
		Female	55	26.9
		<b>Total</b>	<b>205</b>	<b>100.0</b>
2.	Age Bracket:	18 – 27 years	9	4.4
		28 – 37 years	27	13.2

	38 – 47 years	53	25.9
	48 – 57 years	75	36.5
	58 and above years	41	20.0
	<b>Total</b>	<b>263</b>	<b>100.0</b>
3.	Educational Attainment:	WAEC	8 3.7
		NCE/OND	31 15.1
		HND/First Degree	85 41.3
		Masters	37 17.9
		Professional Cert.	40 19.5
		Ph.D	5 2.5
		<b>Total</b>	<b>205</b>
4.	Organizational Tenure:	Below 5 years	31 15.3
		5 – 10 years	56 27.1
		11 – 15 years	62 30.3
		16 and above years	56 27.3
		<b>Total</b>	<b>205</b>

Source: Field Survey, 2022

The demographic features of the respondents presented in Table 4.1 showed that 150 representing 73.1 percent of sample are male respondent and it implies that the sample consists of more males than females. Similarly, it shows also that 164 respondents representing 80 percent of the sample are below the age of 58 years while 167 representing 81.2 percent of the entire sample claim to have qualifications ranging from first degree or its equivalent and above. From the point of view of organizational tenure, the table shows that 174 representing 84.7 percent of the sample have work in their various organizations for upward of 5 years and above. Thus, the implication of the analysis is that judging from the educational background and the length of service of the respondents it can be said that the respondents have the capacity to effectively discuss all issues relating to job stress and employees' productivity in the office.

**Table 4.2: Correlation Analysis**

Variables		Correlation matrix			
		Employee Productivity	Work Overload	Unfriendly Organizational Climate	Inadequate Remuneration
Employee Productivity	Pearson Correlation	1	-.609**	-.521**	-.597**
	Sig. (2-tailed)		.000	.000	.000
Work Overload	N	205	205	205	205
	Pearson Correlation	-.609**	1	.403*	.395*
	Sig. (2-tailed)	.000		.020	.003
Unfriendly Organizational Climate	N	205	205	205	205
	Pearson Correlation	-.521**	.403*	1	.511**
	Sig. (2-tailed)	.000	.020		.000
Inadequate Remuneration	N	205	205	205	205
	Pearson Correlation	-.597	.395*	.511**	1
	Sig. (2-tailed)	.000	.003	.000	
	N	205	205	205	205

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

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

As could be seen from Table 4.2, the correlation analysis showed that negative relationship exists between the dependent variable and the independent variables. However, the matrix is in such a way that multiple regression analysis can be performed on it as it did not show any presence of multicollinearity or orthogonal relationship.

**Table 4.3: Analysis of Variance (ANOVA) for the Model**

Source of Variation	df	ANOVA <sup>b</sup>			Sig.
		Sum of Squares	Mean Square	F-ratio	
Regression	4	159.783	39.946	26.263	.000 <sup>a</sup>
Residual	70	112.567	1.521		
Total	74	272.350			

a. Predictor: (constant), work overload, unfriendly organizational climate and inadequate remuneration

b. Dependent variable: Employee productivity

The result of ANOVA in Table 4.3 shows that F-Statistic has a value of 26.263 which we considered significant because  $P \leq 0.05$  is greater than  $P_{0.000}$ . Therefore, the model is statistically significant and fit for predictions. It shows also that there is significant relationship between the dependent and independent variables.

**Table 4.4: Summary of Regression Results**

Model	R	R <sup>2</sup>	Adjusted R-Square	Standard Error of the Estimate	Durbin Watson
I	0.593	0.514	0.492	0.42561	2.017

a. Predictor: (constant), work overload, unfriendly organizational climate and inadequate remuneration

As could be seen from Table 4.4, the regression coefficient represented by 'R' in the model with a value of 0.593 shows that 59.3 percent relationship exists between dependent and independent variables. Similarly, the coefficient of determination represented by 'R<sup>2</sup>' in the table with a value of 0.514 shows that 51.4 percent variation in the dependent variable can be accounted for by the independent variables. The Durbin Watson Statistic of 2.017 is an indication that there is no serial autocorrelation in the data.

**Table 4.5: Regression Coefficients, t-value and significant Level**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	$\beta$	Std. Error	Beta		
1(Constant)	-.075	.209	-	-825	.387
Work overload	.622	.057	-.498	10.161	.000
Unfriendly organization climate	.571	.063	-.521	4.363	.000
Inadequate Remuneration	.602	.049	-.687	3.509	.003

a. Dependent Variable: Employee Productivity

## 4.2 Test of Hypotheses

The hypotheses formulated to guide the objectives of the study and strengthen the analysis were re-stated in this section of the analysis as follows:

- H<sub>0</sub>: Work overload as a factor of stress does not have significant negative effect on employees' productivity in the organization.

H<sub>1</sub>: Work overload as a factor of stress has significant negative effect on employees' productivity in the organization.
- H<sub>0</sub>: Unfriendly organizational climate as a factor of stress does not have significant negative effect on employees' productivity in the organization.

H<sub>1</sub>: Unfriendly organizational climate as a factor of stress has significant negative effect on employees' productivity in the organization.

3. H<sub>0</sub>: Inadequate remuneration as a source of stress does not have significant negative effect on employees' productivity in the organization.  
H<sub>1</sub>: Inadequate remuneration as a source of stress has significant negative effect on employees' productivity in the organization.

### Interpretation of Regression Results

The regression results presented in Table 4.5 were presented in this section and they were used to take decisions on the claims of null hypotheses as stated above.

Accordingly, the coefficient of work overload as a factor of stress represented in the model by  $\alpha_1$  has a value of -.498 and it means that when work overload is increased by one unit, employees' productivity will reduce by 49.8 percent if other variables in the model are held constant. The t-value of 10.161 and its corresponding significance level of .000 means that the coefficient is significant because  $P \leq 0.05$  is greater than .000. Consequently, the null hypothesis was rejected while the alternative which suggests that work overload has significant negative effect on employee productivity in the organization was accepted.

In the same vein, the coefficient of unfriendly organizational climate as a factor of stress presented in the model by  $\alpha_2$  has a value of -.521 and it means that when unfriendly organizational climate is increase by one unit, employee productivity will decrease by 52.1 percent if other variables in model are held constant. The coefficient is considered to be significant judging from the values of t(4.363) and the corresponding significance level (0.000) which is less than  $P \leq 0.05$ . Therefore, the null hypothesis in the section was rejected which the alternative which suggests that unfriendly organizational climate has significant negative effect on employee productivity was accepted.

Finally, the coefficient of inadequate remuneration as a source of stress represented in the model by  $\alpha_3$  with a value of -.687 means that when inadequate remuneration is increased by one additional unit, employee productivity will reduce by 68.7 percent if other factors in the model are not allowed to vary. Also, the t-value of 3.509 and its corresponding significance level of 3.509 and its corresponding significance level of .003 shows that the coefficient is significant and as such, the null hypothesis was rejected and it was concluded that inadequate remuneration as a source of employee job stress has significant negative effect on employees' productivity in the organization.

### 4.3 Discussion of Research Results

The result of the first test of hypothesis showed that work overload as a factor of job stress has significant negative effect on employee productivity. The result is consistent with that of Okeke, Ojan and Oboreh (2016) when they found from their study of effect of stress on employee productivity that work overload has significant negative effect on the productivity of employees in the banking sector. Work overload is a common source of employee's job stress because in an attempt to accomplish as much as the employer would want the employee to do, the worker in many occasions end up breaking down due to strain which sometimes lead to serious health conditions thereby hampering the employee's productivity in the organization.

In a related development, unfriendly organizational climate affects the employee and his/her performance as the result of the second test of hypothesis has indicated in this study. Rather than allowing the employees to participate or be involved in decision-making to flatten the organizational structure, the command and control structure which many organizations adopt is a serious source of stress for the employees. Under such circumstances, it is often difficult for the employees to release their inner abilities towards the realization of organizational goals and objectives. It is a finding which is in line with that of Lan (2020) when he found from his study of the relationship between organizational climate, job stress, workplace burnout and retention that organizational climate, more that any other factor affects employees' performance in any organization.

In the same vein, the result of the third test of hypothesis showed that inadequate employee remuneration as a source of job stress has significant negative effect on employee productivity in the organization. The result is in line with that of Imtiaz and Ahmad (2009) when they found from their study of impact of stress on employees productivity that decrease in employees financial reward reduces employees productivity significantly. Low or inadequate remuneration brings down employee's morale and as such the consequence is usually low productivity. Employees want commensurable reward for their contributions to the organization and anything in the contrary is a serious source of stress which has negative consequences for both individual and organizational performance.

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of Findings

The result of the analysis of variance (ANOVA) showed that F-Statistic is 26.263 and it implies that the model is statistically significant since  $P \leq 0.05$  is greater than .000 probability level. Other preliminary results showed that regression coefficient of 0.593 is an indication that 59.3 percent relationship exists between dependent and independent variables. Similarly, the coefficient of



determination of 0.514 means that 51.4 percent variation in the dependent variable (employees' productivity can be explained by the independent variables. The rest of the findings are as summarized below:

1. Work overload as a stress factor in the organization significantly and negatively affects employees' productivity.
2. Unfriendly organizational climate as a stress factor/stressor significantly and negatively affects employees' productivity.
3. Inadequate employee remuneration as a source of stress has significant and negative effect on employees' productivity in the organizations.

## 5.2 Conclusions

The study investigated the effect of stress on employees' productivity in some selected firms within the manufacturing subsector in Anambra State. Generally, three sources of employee stress were identified in the study and they include work overload, unfriendly organizational climate and inadequate remuneration for the employees. Collectively, the factors were found to be significantly weighing down employees thereby affecting their productivity negatively. It is apparent that employees under stress are much less inclined to channel energy in continuous improvement initiatives or creative problem solving pursuits. This is because while in self-preservation mode when dealing with stress situations, employees tend to spend their time and energy doing the bare minimum to keep up task engagement. In essence, a stressed-up employee/team will have less energy to start with, as studies have indicated that stress reduces energy stores and a person's physical and mental capabilities.

The presumption in today's business environment is that competitive advantage can be achieved more seamlessly from the contributions of the employees. Consequently, it has led to firms putting too much pressure and stress on the employees, which has led to opposite effect of reduced employees' productivity. It has therefore become absolutely necessary for management to look at work stress as management problem rather than employees problem because considering stress as individual's problem means management will have to cope with all manner of negative work behaviours that associate with it, which might include absenteeism, lateness, quitting of job, total cost of work-related accidents and low quality of work. This study concludes that stress has significant negative effect on employees performance in the organization.

## 5.3 Recommendations

From the findings made from the study and the conclusion drawn from them, the following recommendations were made:

1. The supervisors must assess the levels of their subordinates' capability, knowledge and skills to ensure that they would be able to meet their deadlines. They must agree on a performance contract so that task assignment will be to the ability of the employee to avoid unnecessary work overload.
2. The managers and supervisors should create a friendly environment that can enlist the cooperation of the employees. Such amiable work environment will persuade the employees to be responsible, committed and productive.
3. The management should be willing to conduct from time-to-time, an analysis of the organizational mood and climate, especially as it concerns employees' remuneration to find out their feelings toward the management. They should be able to establish why the (employees) think the organization does not care about them.

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## **Appendix I**

**Instruction:** Please read each statement carefully and with a tick [V] indicate the option that best describe your choice

### **SECTION A: Demographic Information**

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1. State of residence: write the name.....
2. Gender: Male [1]; Female [2]
3. Age:
  - (a) 18 – 27 years [ ]
  - (b) 28 – 37 years [ ]
  - (c) 38 – 47 years [ ]
  - (d) 48 – 57 years [ ]
  - (e) 58 and above years [ ]
4. Educational Qualification:
  - (a) WAEC [ ]
  - (b) NCE/OND [ ]
  - (c) HND/Frist degree [ ]
  - (d) Masters degree [ ]
  - (e) Professional Cert. [ ]
  - (f) PhD[ ]
5. Organizational Tenure:
  - (a) Below 5 years [ ]
  - (b) 5 – 10 years [ ]
  - (c) 11-15years [ ]
  - (d) 16&above years [ ]

**SECTION B: Work Overload and Employee Productivity**

S/N	Items of the Questionnaire	Alternative Responses					Total
		SA	A	D	SD	UND	
1.	Working under pressure as a result of work overload is a serious source of stress						
2.	Excessive work load and working extra hours or overnight affects employees’ health and hence productivity.						
3.	In an attempt to complete an overloaded task to impress the supervisor, the employee breaks down and the productivity is affected.						
4.	Work overload creates problem between the employee and his/her personal life as he/she hardly have time for life outside work with its negative consequences for productivity.						
5.	Proper management style reduces the level of stress among the employees in the organization.						
	Total						

Note: (SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree and UND = Undecided).

**SECTION C: Unfriendly Organizational Climate and Employee Productivity**

S/N	Items of the Questionnaire	Alternative Responses					Total
		SA	A	D	SD	UND	
1.	Vertical organizational structure which makes employees participation in decision making difficult, causes stress to the employee.						
2.	The command and control structure of the organization rather than conducive work environment is a serious source of stress to employees						
3.	Lack of effective communication channels is a major source of stress which lowers employees productivity.						

4.	Note assessing the prevailing organization's mood and climate by management to determine the feeling of employees towards them, encourages employees stress						
5.	Democrative work environment eliminates factors that could cause employees stress reasonably.						
Total							

Note: (SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree and UND = Undecided).

**SECTION D: Inadequate Employee Remuneration and Employee Productivity**

S/N	Items of the Questionnaire	Alternative Responses					Total
		SA	A	D	SD	UND	
1.	Employee under payment in an organization is a serious source of stress, especially when the employee feels that he/she is giving his/her best to the organization.						
2.	Employees often compare their pay with their colleagues in other organizations that perform similar functions. Disparity often leads to stress.						
3.	Employees welfare in terms of adequate remuneration is a motivation that cushions the effect of stress to a reasonable extent among the employees.						
4.	When employees are adequately remunerated, they tend to contribute more in realizing organizations' goals through improved productivity.						
5.	Stress hinders effective performance of duty by employees and it could be as a result of poor management functions.						
Total							

Note: (SA = Strongly Agree; A = Agree; D = Disagree; SD = Strongly Disagree and UND = Undecided).

**Section E: Dependent Variable: Employee Productivity**

S/N	Items of the Questionnaire	Alternative Responses					Total
		VGE	GE	ME	LE	VLE	
1.	To what extent do you think work overload can affect employees' productivity in the organizations.						
2.	To what extent do you believe unfriendly organizational climate can affect employees productivity in the organization?						
3.	To what extent do think inadequate remuneration can affect employees' productivity in the organization?						
Total							

Note: (VGE = Very great extent; GE = Great extent; ME = Moderate extent; LE = Little extent and VLE = Very little extent)

**APPENDIX II**

**Reliability Test for the Instrument**

Reliability test was carried out to ascertain the adequacy and suitability of the questionnaire designed to facilitate data collection from the respondents. In the light of this, the study being an empirical one, adopted a test re-test method of reliability test. The formula for Spearman rank order correlation coefficient is given as:

$$r = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

Where:

- r = The coefficient to be estimated
- n = Number of response options
- d = Difference in rank order
- and 6 = constants

The value of the coefficient ranges between -1 to +1.

Reliability Estimation for Research Question I

Responses	Result of 1 <sup>st</sup> Responses (x)	Result of 2 <sup>nd</sup> Responses (y)	R <sub>x</sub>	R <sub>y</sub>	R <sub>x</sub> - R <sub>y</sub> (d)	d <sup>2</sup>
Strongly Agree	6	7	2	1	1	1
Agree	7	5	1	2.5	-1.5	2.25
Disagree	4	5	3	2.5	0.5	0.25
Strongly Disagree	2	2	4	4	0	0
Undecided	1	1	5	5	0	0
	20	20				3.5

$$r = 1 - \frac{6(3.5)}{5(5^2 - 1)} = 1 - \frac{21}{120} = 0.83$$

Reliability Estimation for Research Question II

Response Options	Result of 1 <sup>st</sup> Responses (x)	Result of 2 <sup>nd</sup> Responses (y)	R <sub>x</sub>	R <sub>y</sub>	R <sub>x</sub> - R <sub>y</sub> (d)	d <sup>2</sup>
Strongly agree	7	5	1	2	-1	1
Agree	5	6	2	1	1	1
Disagree	4	3	3	4	1	1
Strongly disagree	2	4	4.5	3	1.5	2.25
Undecided	2	2	4.5	5	-0.5	0.25
Total	20	20				5.5

$$r = 1 - \frac{6(5.5)}{5(5^2 - 1)} = 1 - \frac{33}{120} = 0.73$$

Reliability Estimation for Research Question III

Response Option	Results of 1 <sup>st</sup> responses	Results of 2 <sup>nd</sup> responses (y)	R <sub>x</sub>	R <sub>y</sub>	R <sub>x</sub> - R <sub>y</sub> (d)	d <sup>2</sup>
Strongly	7	6	1	1	0	0
Agree	6	5	2	2	0	0
Disagree	4	3	3	4	1	1
Strongly disagree	2	4	4	3	1	1
Undecided	1	2	5	5	0	0
Total	20	20				2

$$r - 1 = \frac{6(2)}{5(5^2 - 1)} = 0.90$$