



STRESS MANAGEMENT AND EMPLOYEES' PERFORMANCE OF TISSUE MANUFACTURING FIRMS IN PORTHARCOURT

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Abstract

Stress is a pervasive problem in the manufacturing industry, with studies suggesting that up to 80% of employees experience it at work. This study examines the effects of stress management on employee performance, with a focus on acute, chronic, and traumatic stress as a measure of stress. A survey of 50 respondents was conducted at selected Tissue manufacturing company, representing a target population of 348. The findings, analysed using Multiple Regression, reveals that stress management dimensions have a significant impact on employee productivity. Specifically, this study shows that acute, traumatic, and chronic stress significantly influence employee productivity. Based on these results, this study recommends that management prioritise stress-relief activities to enhance employee performance. By doing so, organisations can mitigate the negative effects of stress and promote a healthier and more productive work environment.

Keywords:

Acute Stress. Traumatic Stress. Chronic stress. Employee productivity.

Introduction

Stress is a pervasive problem in modern workplaces that affects employees in various industries and occupations. According to Sucharitha and Basha (2020). Studies on the impact of stress on employees' productivity and job stress at the workplace are considered to be among the foremost factors affecting employees' performance. He reiterated that stress is alluded to as a condition of pressure experienced by people confronting phenomenal strains, limitations, or openings. Chronic stress can lead to decreased productivity, absenteeism, turnover, and various physical and mental health problems. Stress is a worldwide phenomenon that occurs in various forms in all workplaces. For this reason, Obi (2020) opined that stress is a worldwide experience in the lives of many employees.

Similarly, Odita (2023) posited that stress is inevitable in a work environment. Some of the underlying theories and underpinning concepts behind stress are now settled and accepted, whereas others are still being researched and debated. Stress has become a common phenomenon among employers and employees. Business operates in a dynamic, complicated, and insecure environment that may cause unpredictability in an organisation's performance

(Adewoye & Salau, 2022). According to Salau (2022), it is pertinent that every organisation that adjusts to all modifications must apply an appropriate approach that values employees' contributions and considers their well-being. Thus, stress management is crucial.

The impact of stress on employee productivity is significant. Stress can impair cognitive functions, including attention, memory, and decision-making. This can also lead to decreased motivation, reduced job satisfaction, and increased errors. Stress can also affect employee well-being, leading to burnout, anxiety, and depression.

Effective stress management is essential for mitigating the negative effects of stress on employee performance. Thus, employee productivity is a major tool through which organisations boost their performance indices, such as market share, sales ratio, and profitability. To achieve these concomitantly, good organisations ensure that their employees have the same vision, strengthen the strength of identification and bond between them and their employees, promote employees' voice in decision-making, and equally show concerns for employees' health and welfare (Dukerich et al., 2002). Stress management interventions can include employee assistance programs (EAPs), wellness initiatives, mindfulness training, and workplace redesign. These interventions aim to reduce stressors, improve coping skills, and promote employee well-being.

In today's work life, employees generally work for longer hours, as rising levels of responsibilities require them to exert themselves even more strenuously to meet rising expectations about work performance (Fagan, et al, 2012). Stress is a complex and dynamic phenomenon. Undesirable levels of stress affect an organisation's overall performance. Therefore, to achieve effective work, the organisation or manager should properly manage the level of stress. To achieve this objective, all the factors that influence stress should be properly identified and measured (Karunanithy & Ponnampalam, 2013). Job stress is of vital importance and has become a key challenge for organisations because of its impact on the performance of an individual as well as the organisation. Employees serve as assets for an organisation, but when they are stressed, undesirable circumstances such as increased absenteeism, low productivity, low motivation, and legal financial damages (which eventually affect the employee's work behaviour and lead him/her towards counterproductive work behaviour) emerge.

Stress in organisations affects both the individual and the organisation (e.g. increased turnover rates). Individuals can be affected at the physiological, affective, and behavioural levels, as well as during their leisure time and family life. Stress affects individuals and organisations within different timeframes. Stress reactions can occur immediately (short-term reactions) and/or take longer to develop (long-term reactions). Stress influences the physiological responses of the cardiac system. For example, individuals so-called high-strain jobs (i.e., jobs with high demands and low job control), show higher blood pressure than individuals in other types of jobs (Schwartz, Pickering, & Landsbergis, 1996). Stress is often misunderstood and misinterpreted, which results in avoidable problems. Therefore, it is important to understand stress well before thinking about its management.

The definition of stress has changed over time. Initially, it was considered an environmental pressure, followed by strain within the person. Stress is a psychological and physical state that results when the resources of an individual are insufficient to cope with the demands and pressures of the situation. Thus, stress is more likely in some situations than in others and in

some individuals. Stress is defined as the response to a demand placed on a person. It can be simply understood as “a condition where one experiences a gap between the present and desired state.” Merriam Webster defined stress as a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation. Stress can also be considered an unpleasant emotional situation that we experience when requirements (work-related or not) cannot be counterbalanced by our ability to resolve them. This results in emotional changes in response to this danger. It stems from the relationship between a person and their environment, and it appears as a subjective pressure because the same stress can affect one person but not another.

When an employee can manage the pressures of the job and the possibility of completing a task is substantial, stress can be a motivating factor (Halkos and Dimitrios, 2018). According to Salau, Genty and Olanipekun, (2022), organizational support plays a crucial role in addressing the social, emotional, and economic needs of employees through guidance, counseling, fostering a positive work environment, ensuring fair compensation, and prioritizing their well-being. These initiatives contribute significantly to improving stress management practices.

Many organisations worldwide are witnessing an alarming increase in the negative effects of stress on employee productivity (Henry & Evans, 2008). Most organisations end up saddling employees with an overload of work to meet deadlines with the objective of attaining higher productivity, and this might have physical and psychological effects on employees. This may result in something contrary to what these organisations want to achieve (Fagan, et al, 2012) and thereby influence their productivity. Recently, there has been an increase in cases of occupational stress-related problems among employees, which has led to declining interest in their jobs, less commitment, and growing impatience among top managers (Pflanz & Ogle, 2006). This is mainly due to the competitive nature of the job environment, shift in work demands, and economic hardship due to the economic recession. Therefore, this study aims to examine the factors associated with the effect of stress management on employees' productivity in the service industry.

Stress Management

Stress management involves applying various techniques to reduce the effect of stress on an individual. Amadi (2007) described it as a wide spectrum of techniques and psychotherapies aimed at controlling a person's level of stress, specifically chronic stress. Stress can be managed in many ways, depending on the type of stress and its cause. The best stress management plans usually include a mix of stress-relievers that address stress-related ailments (Checks, 2011).

The goal of stress management is to help individuals manage their everyday stress. It also refers to interventions designed to reduce the impact of stressors in the workplace, with the aim of increasing an individual's ability to cope with stressors. Stress produces numerous symptoms which vary depending on the individual, situation, and severity (Ravikumar, 2016). These include physical health decline and depression. The process of stress management is known to be one of the keys to a happy and successful life in modern society. Adim, Ibekwe, and Akintokumbo, (2018). described stress management as a proven group of techniques for modifying stress, producing thoughts, relaxing physical and emotional tension, and learning how to make changes to our environment (or situation) whenever possible. Stress management also refers to a wide spectrum of techniques and psychotherapies aimed at controlling a person's

level of stress, especially chronic stress, usually for improving everyday functioning (Barinem, Amah, & Okocha (2022).

Although life provides numerous demands that can prove difficult to handle, stress management provides several ways to manage anxiety and maintain overall wellbeing. Effective stress management can help us resolve conflicts with others assertively and confidently become better problem solvers in the face of life's demands and to appreciate the helpfulness of exercise and recreation. Stress management is designed to reduce the impact of stressors in the workplace.

These can have an individual focus aimed at increasing an individual's ability to cope with stressors. The goal of stress management is to help individuals manage their stress in everyday life. Given the beneficial nature of mild-to-moderate levels of stress, the goal of stress management is not to eliminate all stresses. Rather, stress-management techniques are designed to maintain stress levels within an optimal range. Engaging in healthy lifestyle behaviours can help reduce stress and maximise the likelihood of living a long and healthy life (Miedziun, & Czabała, 2015).

Theoretical Framework

Selye's Systemic Stress Theory

Karanja (2016) opined that the popularity of the stress concept stems largely from the work of endocrinologist Hans Selye. In a series of animal studies, he observed that a variety of stimulus events (e.g. heat, cold, toxic agents) applied intensely and long enough can produce common effects that are non-specific to either stimulus event. (Besides these nonspecific changes in the body, each stimulus produces, of course, its specific effect, heat, for example, produces vasodilation, and cold vasoconstriction.) According to Selye, these nonspecific changes constitute the stereotypical response pattern of systemic stress. Selye (1976) defines this stress as 'a state manifested by a syndrome which consists of all the nonspecifically induced changes in a biologic system.' This stereotypical response pattern, called General Adaptation Syndrome (GAS), occurs in three stages. (a) The alarm reaction comprises an initial shock phase and subsequent counter-shock phase. The shock phase is characterised by autonomic excitability, increased adrenaline discharge, and gastrointestinal ulcerations. The counter-shock phase marks the initial operation of defensive processes and is characterized by increased adrenocortical activity. (b) If noxious stimulation continues, the organism enters the resistance stage. In this stage, the symptoms of the alarm reaction disappear, which indicates the organism's adaptation to the stressor. However, while resistance to noxious stimulation increases, resistance to other types of stressors decreases simultaneously. (c) If aversive stimulation persists, resistance gives way to the exhaustion stage. The organism's ability to adapt to the stressor is exhausted, and the symptoms of stage

(a) reappear; however, resistance is no longer possible. Irreversible tissue damage occurs and if stimulation persists, the organism dies. Although Selye failed to consider coping mechanisms as important mediators of the stress–outcome relationship, his theory explains that the detriments of stress of interventions are not made in time to rescue stressed individuals. This theory indirectly underpins the importance of stress management strategies to prevent employees from reaching the irreversible stage when stress is more advanced. With adequate

intervention measures that are applied in time, employees' commitment may be restored, and therefore, their productivity.

Empirical Review

According to Garrison and Bly (as cited by Garin Jr, & Chaiyaphongpipat, 2020), corporations have become acutely aware of problems caused by stress. The illnesses associated with stress are costly and can debilitate valuable workers. When stress is not handled well, absenteeism, turnover, and medical compensation increase and productivity decreases.

Echo, and Oboreh, (2016) examined the effect of stress on employee productivity in the Nigerian banking industry by reviewing relevant theoretical and empirical literature and anchored it on the Person Environment (PE) Fit Theory. This study adopts a survey research method. The study population comprised five selected banks in the Awka metropolitan area. Purposive sampling was used to select 250 employees. This study revealed that workload pressure has a significant effect on employee productivity. It was also revealed that stress hinders effective employee performance. Therefore, management should take remedial measures to minimise the effect of job stress on a permanent basis.

Amadi (2024) adopted a psychological approach to organizational well-being to examine stress management and employee productivity. The study revealed that both domestic and occupational stress can negatively impact employees' productivity performance. The study also revealed that employees with little or no stress can minimise delivery time, waste, and utilise available techniques and technologies. The study therefore concludes that stress is inherent in men, as such organisations should be proactive in managing the emotional state of employees, which is their engine-room for better performance. To achieve this, superordinates should observe employees' emotional states regularly to know when there is deviation, and how to help put them back on track.

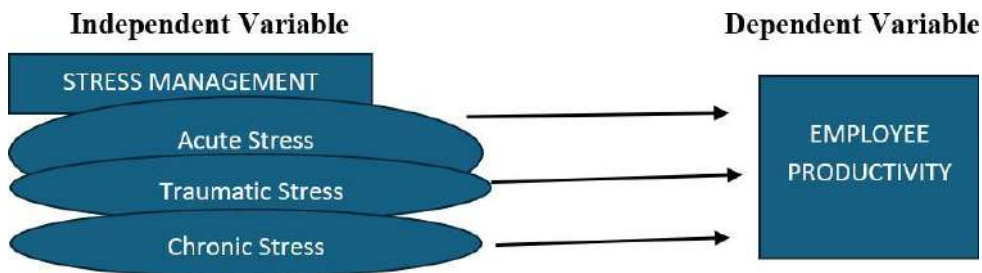
Sucharitha and Basha, (2020) the study investigates the impact of work stress on the performance of employees, using the purposeful and simple random approach to select the sample size of 200 participants. Data were collected using questionnaires and focus group discussion. The findings indicate that participants suffer from undue stress that adversely affects their performance, as many of them feel that leadership exerts pressure on them to improve their performance.

Timotius and Octavius (2022) assessed past and present workplace stress-related information and analysed their impact on productivity. Four eligible studies were qualitatively assessed from 2,642 identified literature through four databases (Cochrane, Science Direct, SciELO, and PubMed) using the keywords stress, impact, productivity, industrial engineering, management, and medicine. The study was convinced that stress in the workplace contributes to worsening relationships at home, worsening relationships between superiors and subordinates, and contracting diseases. This has a potentially negative impact on productivity. Furthermore, the work environment plays a significant role in inducing workplace stress due to human physiological responses. Noxious stress is detrimental to the human body, especially if it is maintained for a long time.

Akintunde-Adeyi et al. (2023) investigated the extent to which stress affects staff performance. This study adopts a descriptive survey research method. The study was conducted at a private university in southwest Nigeria. The study population was comprised of all non-academic staff at the university. Two hundred and eighty (280) non-academic staff members of the university participated in the survey. A questionnaire was used for data collection. Inferential and descriptive statistics were used to analyse the data that had been obtained. This study reveals that stress has a significant impact on employee performance. The results also showed a substantial correlation between employee performance and personal stress management strategies.

Gupta, Mishra, and Saxena (2024) investigate the impact of stress on individuals' information behavior, focusing on behaviors that look to be especially interesting or important. The research was conducted at the Department of Posts of Jabalpur, and 118 participants responded to a survey during the course of this research. A pre-tested questionnaire contained questions related to the work assignment that were personally given to randomly selected people and obtained the views of the employees on the aspects related to the study. The study found that the major factors clearly indicate that the work assigned plays a significant role in connection with positive stress.

Conceptual Model



Methodology

This descriptive survey research examined the effects of stress management on employee performance, with a focus on acute, chronic, and traumatic stress as a measure of stress. A survey of 50 respondents was conducted at selected Tissue manufacturing companies, representing a target population of 348. Through a convenience sampling technique, the well structured questionnaires were distributed through the personnel units of the companies. The inferential statistics was conducted with Multiple Regression Analysis.

Results

Testing of hypotheses 1, 2 and 3

Decision Rule

If $PV < 0.05$ = Hypothesis is supported
 If $PV > 0.05$ = Hypothesis is not supported

Table 1-3 Multiple Regression Analysis showing the effect of stress management on employees' performance.**Table 1: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.920 ^a	.847	.843	.18441

a. Predictors: (Constant), Chronic Stress, Traumatic Stress, Acute Stress

Table 2: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.684	3	7.895	232.145	.000 ^b
	Residual	4.285	126	.034		
	Total	27.969	129			

a. Dependent Variable: Employee Productivity

b. Predictors: (Constant), Chronic Stress, Traumatic Stress, Acute Stress

Table 3: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.559	.135		11.509	.000
	Acute Stress	-.065	.044	-.096	-1.466	.045
	Traumatic Stress	.168	.053	.205	3.195	.002
	Chronic Stress	.583	.049	.825	11.815	.000

a. Dependent Variable: Employee Productivity

For this study, regression analysis was performed to predict the level of employees' performance based on three independent factors of stress management. The three independent factors/dimensions of brand management are: acute stress, traumatic stress and chronic stress.

The Table1 shows that R is .920, R Square is .847 and adjusted R square is .843. This is an indication that 84.7% of the variance in employee performance can be explained by the changes in independent variables of stress management. As a general rule, this model is considered as a 'good fit' as this, multiple regression model is able to explain above 60% (threshold) of variance in the dependent variable: employee performance (employee productivity) (Moosa & Hassan, 2015). The ANOVA Test in Table 2 shows that $F = 232.145$ & $p = .000 < 0.05$, indicating significant relationship between the stress management and employee productivity.

The result of the regression analysis shows that all the three indicators of stress management influences employees' productivity by making significant contribution to explaining the dependent variable. The three significant factors are: acute stress (AS) ($B = .096$; $p = .045 < 0.05$) traumatic stress (TS) ($B = .205$; $p = .002 < 0.05$) and chronic stress (CS) ($B = .825$; $p = .000 < 0.05$).

H1: The outcome of analysis show that acute stress had significant effect on employee productivity to the tissue manufacturing companies ($\beta = 0.096$, $p = 0.045 < 0.05$).

H2: The outcome of analysis show that traumatic stress had significant effect on employee productivity to the tissue manufacturing companies ($\beta = 0.205$, $p = 0.002 < 0.05$).

H3: The outcome of analysis show that chronic stress had significant effect on employee productivity to the tissue manufacturing companies ($\beta = 0.825$, $p = 0.000 < 0.05$).

Discussion of Results

Hypothesis 1 showed a significant effect of acute stress on employees' productivity towards tissue companies in Port Harcourt ($\beta = 0.096$, $p = 0.045 < 0.05$). Therefore, H1 is supported. This finding is consistent with the findings of Sucharitha and Basha (2020) who found that undue stress adversely affects their performance.

Hypothesis 2 posited a significant effect of brand experience on customer satisfaction at the upscale restaurant in Port Harcourt. With ($\beta = 0.205$, $p = 0.002 < 0.05$). This finding is consistent with the findings of Timotius and Octavius (2022) who found that workplace stress influences performance negatively by causing sicknesses.

Hypothesis 3 posited a significant effect of customer satisfaction on customers' repurchase intentions to the upscale restaurants in Port Harcourt. With ($\beta = 0.825$, $p = 0.000 < 0.05$). This finding is consistent with the findings of Amadi (2024) who found that both domestic and occupational stress negatively impacts employee productivity.

Conclusion and Recommendations

Stress is at the centre of several challenges bedeviling employees in the workplace; it cannot be eliminated. Hence, it is necessary to manage it to ensure the efficiency and effectiveness of the workforce. Organizations should ensure that their work environment is in order, jobs

are designed to accommodate employees, and policies that are made for flexibility in the workplace should be put in place

Recommendationss

Based on the discussion and conclusions above, the following recommendations are made.

1. Management must ensure that it formulates policies that are capable of relieving employees of stress to enhance productivity by providing a friendly ground for employee voice, making good policies for employees' health and welfare,
2. Management should design tasks and jobs to be effective and efficient and improve the

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