

Work-Related Stress: A Challenge for Organizations and Workers in the Nigerian Petroleum Industry

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Abstract:- This study aimed to identify the effects of work-related stress on organizations and the productivity of workers in the petroleum industry of the Nigerian Niger Delta region. The study which was based on the conceptual framework of Person–Environment fit theory, identified stress as the consequence of a mismatch between workers’ needs and organizational environment. The study adopted a multiple case study design to enhance triangulation of data from several sources. The population of study was supervisors in the petroleum industry of the Niger Delta region of Nigeria. The sample size was determined based on the context and the study population. Purposive sampling technique was used to sample six supervisors from three companies to participate in the study. To ensure that the data collected was rich, the study focused on selecting supervisors that recognized the impact of work-related stress and had successfully implemented strategies to mitigate the impacts. The instruments for data collection were semi-structured interview, workplace observations and document review. The findings from the study indicated that work-related stress makes workers susceptible to workplace incidents and creates occupational health challenges such as reduced efficiency, impaired judgement, fatigue, psychological disorders and poor decision-making. The implication is that work-related stress is an unsafe condition with potentials for health and safety incidents in the petroleum industry. Based on the findings, the study concluded that work-related stress is a challenge in the petroleum industry and adversely impacts workers’ health and productivity, thereby reducing organizational profitability. The study recommended identification and implementation of appropriate strategies to mitigate the negative impacts of work stress in the petroleum sector.

Keywords:- *Impact, Management, Petroleum Industry, Stress, Job Demand, P-E fit.*

I. INTRODUCTION

Over the years, work-related stress has been a safety and health challenge adversely affecting workers and organizations in different part of the world [1]. Previous studies show that work-related stress causes reduction in workers’ productivity and organizational profitability [4-7]. The effects of work-related stress are not the same for all workers and in the different professions and vary from impaired workers’ health, drop in workers’ productivity and reduction in organizational profitability [2, 3]. Globally, the cost of work-related stress to organizations is 300 billion dollars [9]. On annual basis, the losses incurred by European Union states due to work-related stress are much; for example, about 50–60% loss in workdays and a financial loss of 185 to 269 billion Euros [8]. Though maintaining work-life balance is a key mitigation for work-related stress, the dynamics of today’s world makes maintenance of work-life balance challenging [10]. For instance, the reality in most workplaces today is high workload, frequent changes in priorities, long working hours, limited work control, and limited job satisfaction. All these create fertile grounds for work-related stress. The implication is that organizational leaders need to increase their awareness of the impacts of work-related stress so as to prevent the likelihood of occurrence and to mitigate the health impact on workers to enhance their productivity. It is against this background that this study seeks to find out the impact of work-related stress on workers’ output in the Nigerian petroleum industry

II. THEORETICAL/CONCEPTUAL FRAMEWORK

The theoretical/conceptual underpinning of this study is based on the Person–Environment (P-E) fit theory. The theory, postulated by Caplan in 1975 [11] is based on the need to align workers' needs and desires with organizational demands so as to have a work environment that is physically, psychologically, and socially compatible with the worker [12]. Such environment will enable the workers not only to meet the job demands but to also satisfy their personal needs and desires while on the job [12]. When there is a mismatch between the workers needs and the organizational environment, the outcome is work-related stress [12]. The needs and desires of the workers can be influenced by different factors such as their level of intelligence, individual worker's coping ability, skills and knowledge of the job and how to manage work-related stress, and their personal characteristics such as career expectations, passion for the job, belief and value system, and background [13]. The conditions at the work environment may affect how the workers interact with the environment thereby influencing the workers behaviour. While the P-E fit theory generally deals with worker-environment match, what constitutes the workers' environment may vary hence the different variations of the P-E fit theory such as person–organization fit, person–pay fit, person–job fit, and person–person fit [14]. Each of the variants of the P–E fit model deals with a specific aspect of alignment between the worker and the work environment or workplace factors. Additionally, each of the variants showcases the way mismatch between the worker and specific organizational factor can induce work-related stress. Such organizational factors that may induce mismatch include job design, workers pay and compensation, job control, and co-workers. In a typical organizational setting, each of the variants of the P-E fit theory is independent of the other. For example, if there is a high need for training to address demands–abilities fit, needs–supplies fit may be adversely impacted [14]. If there is sustained mismatch between the worker's need and workplace factors, there may be the potential to induce stress that can affect the worker's health and productivity [15]. The implication is that organizational leaders and their workers need to align on the relevant characteristics of the workers and the relevant environmental or organizational characteristics that should be matched to ensure P-E fit that will result in a mutually beneficial condition for the workers and the organization. The focus should be to align the workers' needs and desire with the work environment to achieve minimal disruption between the worker and organizational environmental characteristics [16].

III. METHODOLOGY

➤ *Study Design*

The study adopted a multiple case study design because the design is suitable for answering a research question using several cases [17-19]. The design was also chosen because it is appropriate for exploring the similarities and differences between two or more cases [17-19]. Since the study involved gathering data from multiple organizations in different contexts, the multiple case study approach was fit for this study. With the design, analysis of health and working conditions of workers in the organizations could be achieved. The design also enhanced triangulation of the data from the different data sources.

➤ *Study Population*

The population under study was supervisors in petroleum companies in the Nigeria Niger Delta region who had evidence of successful deployment of strategies to reduce work-related stress.

➤ *Selection Criteria*

The context and the study population were used to determine the sample size. According to [2], a sample size of six to ten participants is enough to achieve data saturation in a multiple case study design so far as the participants have rich and diverse experiences on the subject of the study.

➤ *Sampling Technique*

To achieve rich data for the study, purposive sampling technique was used to select a sample of six supervisors from three companies for the study. As [21, 22] noted, purposive sampling focusses on the most informed samples and so increases the chances of obtaining rich data thereby improving the efficiency of the sampling process. Compared to empirical generalization of samples, the focus on data-rich samples produces more insights and enhances more in-depth understanding of the concept of study [23]. To enhance data saturation, the interview continued until the participants did not produce any new data.

➤ *Research Instrument*

Data collection was done using semi-structured interviews. Additional data was collected through review of documents such as information on notice boards, safety bulletins, available company health and safety procedures relevant to work-related stress management, and workers' handbook. Such reviews, as [19, 24] noted, serve as confirmatory evidence and help to promote objectivity.

➤ *Procedure*

In the study, the ethical protection of the research participants was a key consideration. Prior to each interview, the consent of the participant was sought and each participant was informed of the right to withdraw from the study at any time even without any justification. The process involved the informed consent form and implementing precautionary measures to protect the confidentiality of the participants in the study. Before audio-recording of each interview session, the consent of the research participant was obtained.

➤ Data Analysis

Thematic analysis was the technique used to analyze the data collected. Methodological triangulation was then applied to enable validation of the data from the different research instruments.

➤ Ethical Approval

The right of the study participants to review the transcript of the interview session was also discussed. No participant was paid or induced in any way to participate in

the study. Pseudonyms were used for the research participants and their organizations as part of effort to ensure the confidentiality of the participants and their organizations.

IV. RESULTS

The respondents in the study identified eight major ways work-related stress impact workers health and safety, project timelines, and organizational profitability and efficiency – see the details in figure 1.

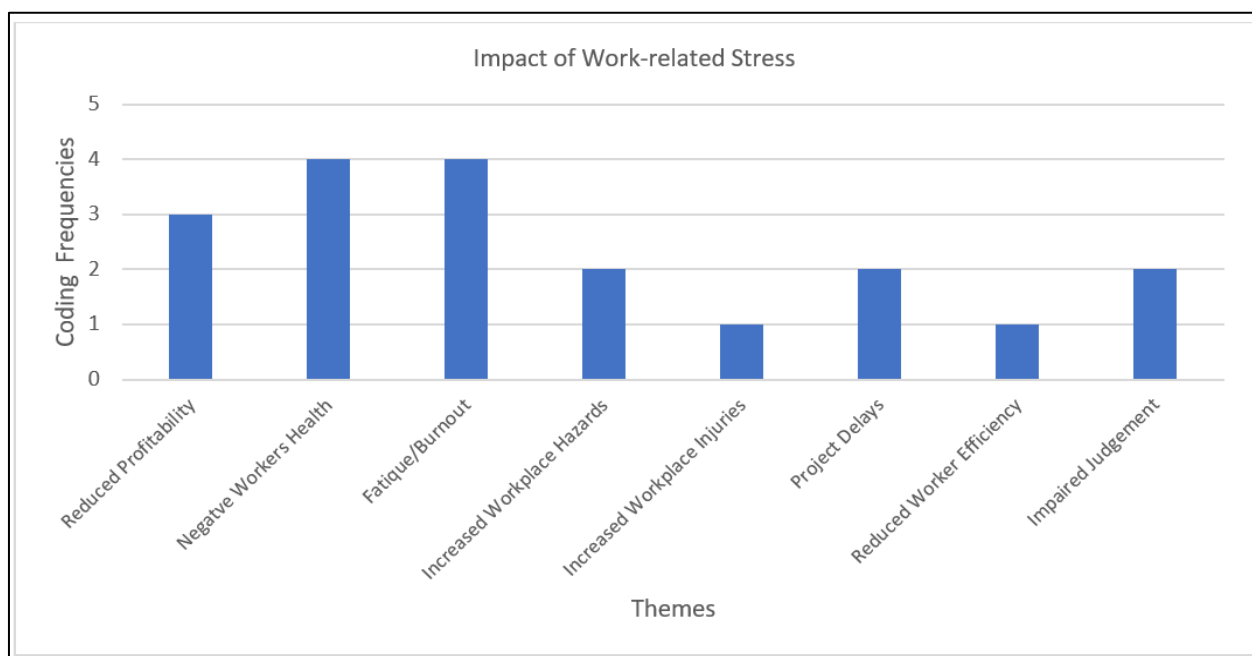


Fig 1: Effects of Work-Related Stress

V. DISCUSSION OF FINDINGS

The research participants showed a strong awareness of the adverse effects of work-related stress. Their responses showed that work-related stress adversely impacts organizations and their employees in different ways. Though the research participants differed on the actual effects of work-related stress, there was consistency among the respondents that work-related stress generally causes reduction in organizational profitability and employee productivity.

Figure 1 shows the summary of the different impacts of work-related stress and the varying levels of the impact on both the workers and organizations based on the key themes from the analysis of the perception of the different research participants. Though the respondents distinguished between the impact of work-related stress on the workers and the impact on organizations, there is a strong correlation between the impact of work-related stress on workers and the impact on organizations. Respondent W1 noted that “Work-related stress creates room for hazard and makes workers prone to injury” while respondent W2 pointed out that “Work-related stress causes fatigue, reduced efficiency, obscured judgment, irrational decision, unconscious tendency to take shortcut, and is a form of deferred accident.” Respondent W4 added that work-related stress leads to “low output and stress-

related illnesses.” Respondent W5 observed that when organizational environmental factors are not aligned with workers’ needs and desires, workers bound to experience negative effects on their health. The misalignment, as respondent W5 noted, can manifest in the form of “the worker receiving limited support from the organization.” Also, respondent W6 identified low worker productivity as one of the consequences of work-related stress. The observations by the different participants in the study aligned with previous research findings which showed identified work-related stress as a key challenge facing workers and organizational leaders [1, 4, 5]. The research findings reinforced the need for organizational leaders to have strategies for effective work-related stress management.

Though there were inconsistencies among the research participants in their perception of the consequences of work-related stress, the result of the study, as shown in figure 1, indicates that work-related stress adversely affects both organizations and their employees. The direct effects on the employees can manifest in the form of ill-health, reduced efficiency, fatigue, burnout, impaired judgment, and increased workplace injuries. Previous researchers had concluded that when employees’ needs and desires do not align with the demands of the organizations, there is potential for the employees to experience repeated adverse negative emotions [11, 25, 26]. Such negative emotions may manifest

in the form of impaired judgment, fatigue, burnout, ill-health, or reduced efficiency [11, 25, 26]. These negative emotions can also negatively affect employees' psychological well-being [27]. As part of the effort to improve employees' psychological well-being, the management of organizations should promote a workplace culture in which organizational factors are aligned with employees' needs and desires. The result of such act would be improvements in work–life balance and work–family balance.

When there is mismatch between the personal traits, needs and desires of the employees and the demands of the job. Work-related stress is a major outcome [28]. The factors at the workplace that enhance mismatch between employees' needs and organizational demands are workplace hazards. Such hazards, as respondent W1 alluded, can make employees susceptible to hurt. Though employees are the direct victims of workplace injuries, such injuries can indirectly impact organizational profitability due to reduced employees' productivity and project delays due to challenges of finding competent replacement for injured employees [29].

Some of the research participants identified reduced employees' efficiency and productivity as the result of work-related stress. Their observation complies with the inverted-U model. According to the model, some amount of stress is required to enhance employees' productivity. However, when the stress increases above a certain threshold, depending on the personal coping characteristics of the impacted employee, the employee becomes demotivated and this results in decline in productivity [30]. The implication is that while a small amount of work-related stress is effective in enhancing employees' productivity, a large amount of stress is inimical to the psychological well-being of employees and results in reduction in employee productivity and organizational profitability. This was identified by some respondents.

Some respondents identified project delays, a typical contributor to reduction in organizational profitability, as another adverse impact of work-related stress on organizations. As the research participants shared, project delays due to employees' injuries typically attracts negative publicity. The consequences typically include reduction in clients patronage, less shareholders confidence, and reduced customer trust on the organizations' ability to deliver on their commitments. Apart from employees' injuries adversely limiting the ability of organizations to deliver on their commitments thereby adversely impacting the organizational profitability, frequent injuries can also result in increased employees turnover. When organizations lose competent employees, the consequences include reduction in organizational profitability.

It is, therefore obvious from the findings of the study that large amount of work-related stress is detrimental to organizational employees and the organizations. In view of these impacts, both employees and organizational leaders need to identify and implement strategies to align employees needs and organizational demands to reduce the potential of creating the scenario that will induce work-related stress.

VI. CONCLUSION

Like in many industries, work-related stress is a health and safety challenge to employees in the Nigerian petroleum industry. The phenomenon does not only negatively affect employees' health and productivity but also adversely impacts organizational profitability and so needs to be managed to enhance organizations' sustenance particularly as the Nigerian government relies heavily on revenue from the petroleum industry to sustain her economy. The implication is that what adversely affects the petroleum industry also directly affects the Nigerian economy and her business environment.

RECOMMENDATIONS

Considering the adverse impact of work-related stress on employees, organizations and, by extension, the Nigerian economy, there is the need to increase awareness among workers on the impact of work-related stress. The organizations in the petroleum industry of the Nigeria Niger Delta region need to define specific strategies for managing work-related stress. The organizations also need to have work-related stress management procedures and take active steps to educate their workers and leadership and implement strategies to protect their employees from adverse impact of work-related stress. Recognizing the potential for work-related stress to adversely impact the Nigerian economy, the regulatory agencies for the petroleum industry should verify the effectiveness of the strategies in place for work-related stress management and sanction organizations that are not actively focused on work-related stress management.

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