

## EXAMINING THE NEXUS BETWEEN JOB STRESS AND EMPLOYEE'S PERFORMANCE IN PUBLIC HIGHER INSTITUTIONS: A STUDY OF NON-TEACHING STAFF IN FEDERAL POLYTECHNIC MUBI

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### ABSTRACT

*The purpose of this paper is to examine the effect job stress on the level of productivity among the non-teaching staff of the Federal Polytechnic Mubi. The paper measured the level job performance in order to determine the effect of job stress factors such as workload, role conflict and role ambiguity on the non-teaching staff's job performance. To achieve this objective a structured questionnaire was distributed and collected from the employees in two departments Registry and bursary. Obtained results from the research questionnaire were analyzed using Multiple Regression analysis. Results show that the level of employees of job stress has an impact on their Job performance. Moreover, it was found that the cause of job stress among non-teaching staff in Federal Polytechnic Mubi does not depend on Department.*

**Keywords:** Job Stress, Employee's Performance, Productivity, non-teaching staff

### INTRODUCTION

Over the past few decades' stress has emerged as one of the significant problems at the epicenter of organizational productivity in both publics and privates (Deng, Guo, Ma, Yang, & Tian, 2019). Stress is vigorous state in which a person is confronted with an opportunity, demand, or resource related to what the individual wishes and for which the outcome is perceived to be both vague and vital (Bjaalid, Olsen, Melberg, & Mikkelsen, 2019). Selye, (1973) first introduced the idea of stress in to the life science. He defined stress as the force, pressure, or tension subjected upon an individual who resists these forces and attempt to uphold its true state. Szabo, Yoshida, Filakovszky, & Juhasz (2017) defines stress as an undesirable response people have to tremendous pressures or other types of demands placed upon them. It arises when individual begin to worry that they cannot deal with the pressures. Some stress can be good, and some can be bad. Jayashree, (2010), distinguishes between stress and pressure. Pressure is seen as positive and something that actually helps improve our performance. We all need a certain amount of pressure to perform this is evident from the lives of athlete, actor or actress.

However, the problems arise when the sources of pressure become too frequent without time to recover, or when just one source of pressure is too great for us to cope with (Sari, 2020). Stress can be understood more comprehensively as, it is a condition which happens when one realizes the pressures on them, or the requirements of a situation, are wider than they can handle

(Dehghan, Mobinyzadeh, & Habibi, 2016). If these requirements are huge and continue for a longer period of time without any interval, mental, physical or behavioral problems may occur (An, Liu, Sun, & Liu, 2020). Stress has a positive effect on employees of any organization but up to a certain extent to which an employee can cope with it, mostly when it exceeds the bearable limits it can start to have a negative result on employees (An, Liu, Sun, & Liu, 2020). This is the base of this research paper which intends to take a cursory look at the level of stress experienced by the non-teaching staff in Federal Polytechnic Mubi vis-à-vis their performance level. A lot of work has been conducted on this area but mostly outside Nigeria even those that focus on Nigerian employees the emphasis was either on private sector such as banking sector for instance or on street level bureaucrats such as revenue collectors. The purpose of this paper is therefore to shift the focus to educational institutions by examining the relative interface between the level stress and job performance of the non-teaching staff in Federal Polytechnic Mubi.

## CONCEPTUAL CLARIFICATION

### The Concept of Stress

Stress is a natural reaction of the body to any unpleasant demand placed on it (Jayasinghe, & Mendis, 2017). Stress is simply your body's reaction to external event or internal events which imposes high degree of pressure on it (Vijayan, 2017). Stress is a normal and in fact necessary for a vital life. With too little stress, many people are bored and unproductive (Banerjee & Mehta, 2016).

Life is a series of challenges and these changes requires adaptive responses. Jalagat, (2017), emphasized that your perception of inescapable life event determines how they affects you. Even positive events (marriage, a promotion, graduation, vacation and holidays) may be disruptive and demanding for some people and therefore stressful. Public speaking may be exciting and fun for one person and may cause anxiety attack in others. Stress is not out there, it is something you can create and can manage. You can choose to respond in calm, centered way. You have the power to change negative, harmful thoughts and create positive habits. Stress is a state of mind which reflects certain biochemical reactions in the human body and is projected by a sense of anxiety, tension and depression and is caused by such demands by the environmental forces or internal forces that cannot be met by the resources available to the person (Jalagat, 2017). The intensity of such demand that requires a readjustment of resources or operational styles would determine the extent of stress.

## RESEARCH QUESTIONS

**Research question One:** What is the level of stress among non-teaching staff of Federal Polytechnic Mubi?

**Research question One:** What are the factors that induce stress among non-teaching staff in Federal Polytechnic Mubi?

## RESEARCH HYPOTHESE

**Hypothesis One:** The level of stress among non-teaching staff in Federal Polytechnic Mubi do affect their performance.

**Hypothesis Two:** The factors that induce stress among non-teaching staff in Federal Polytechnic Mubi does not depends on department.

## REVIEW OF LITERATURE

Stress is an unwanted reaction people have to severe pressures or other types of demands placed upon them. A huge and multi field's literature points a lot of key factors such as work environment, management support, work load in determining how stressful a work can be and its effect on employee physical and mental health, (Logan & Ganster 2005). Selye, (1973) defined stress as an individual's reaction to an environmental force that effect his or her performance. Job related stress can be mostly immobilizing because of its possible threats to family functioning and individual performance.

Stress exists in every organization either big or small the work places and organizations have become so much complex due to which it exists, work place stress has significant effects over the employee's job performance, and the organizations all over the world are trying to cope with this scenario (Jalagat, 2017). Eleven forces are used as antecedents of stress by researchers (Overload, Role vagueness, Role conflict, Responsibility for people, Participation, Lack of feedback, keeping up with quick technological change, Being in an innovative role, Career growth, Organizational structure and environment, and Recent episodic events (Vijayan, 2017).

Overload connote an excessive work or work that is outside one's capability. Role Ambiguity on the other hand involve insufficient information concerning powers, authority and duties to perform by one's role. On it part Role Conflict is where a supervisors or subordinates place contradictory demands on the individual. Responsibility for people on it parlance denote being responsible for people's well-being, job security, and professional development. While participation involve the extent to which one has influence over decisions relevant to one's job. On it part Lack of Feedback deals with lack of information about job performance. while keeping up with rapid technological change deals with maintaining pace with rapid changes in the information processing field. Being in an innovative role in this regard deals with having to bring about change in the organization. While career development involves the impact of status dissimilarity, lack of job security, let down ambition. Finally, recent episodic events deal with certain life events, such as divorce and bereavement, that are highly stressful (Vijayan, 2017).

In every organization and at every level of responsibility worker are placed an average level of stress is to be found which mostly has an effect on employee's job satisfaction and performance (Eu & Lee, 2020). According to Ahmad & Afgan (2016) employees have tendency to be affected by high level of stress regarding time, working for longer hours which reduces their urge for performing better. There are a lot of reasons causing stress on employees such work family conflicts, work over load etc. As identified by Vijayan (2017) that if the organization or management does not appreciate its employees for their hard work or contribution toward the organization success it creates stress and mostly resulted to intention to leave.

Premalatha & Subramanian (2020), studied the link between stress, satisfaction and performance of employees in the banking sector, the findings revealed that lower stress improves performance of employee's which they studied in different managerial level of an organization. Dehghani, Bahariniya, & Servat, (2020), investigate the relationship between occupational stressors and the performance of employees of an organization the result also indicate that stress can affect the employees psychologically. Hassan, M., Azmat, U., Sarwar, S., Adil, I. H., & Gillani (2020),

studied the impact of job satisfaction, job stress and motivation on job performance among employees of private Universities of Karachi the findings showed that stress on job can be stated as the outcome of an individual due to the working environment from which he feels unsecured. In another study by Montani, Courcy & Vandenberghe (2017), A random sample of 305 blue-collar and 325 managerial workers in Canadian firm are surveyed through structured questionnaire. Variables used for this study were job stress, job performance, and organizational commitment. A negative linear relationship between job stress and job performance was found. Very limited evidence is seen for curvilinear or no association.

To this end, as evidence suggest from the available literature reviewed so far different relationships are projected between job stress and performance: U-shaped and curvilinear, positive linear, negative linear and no relationship between the stress and performance.

## METHODOLOGY

This study adopts ex-fost-facto research design. This design seeks to establish cause effect relationship between variables without the use of control group. According to Lord (1973) expost-facto research design is similar to experimental study but differ from it in that the researcher has no control over the variables of interest and therefore cannot manipulate them. In this type of study, the researcher can only attempt to link some already existing effects or observations to some variables as causative agents. The researcher finds that the subjects are already assigned to or classified into the various levels of the variables whose effects are being investigated and he cannot alter this. This design is considered appropriate for this study because it is not possible for the researcher to directly manipulate the independent variable (stress).

The present study was conducted among employees of two departments in Federal Polytechnic Mubi namely; Registry and Bursary departments. The data was collected by means of a structured questionnaire; copies of the questionnaire were given to respondents by hand. Due to time and budget limitations convenient sampling technique is used to explore the relationship between stress and job performance of employees. The sample size is 52 drawn from the total number of 144 employees using G-Power. Majority of respondents were male (87%) and married (79%). The average respondent was 39 years of age, with some having graduate and postgraduate qualifications respectively.

## RESULTS & DISCUSSION

Research question One: What is the level of stress among non-teaching staff of Federal Polytechnic Mubi?

**Table 1 Responses on Stress Performance Test**

| S/N | Statements                         | Low | High | Remarks |
|-----|------------------------------------|-----|------|---------|
| 1   | No time for goals                  | 17  | 38   | HIGH    |
| 2   | Lack of money                      | 17  | 38   | HIGH    |
| 3   | Uncomfortable living area          | 17  | 38   | HIGH    |
| 4   | Long working hours                 | 17  | 38   | HIGH    |
| 5   | Boring, uninteresting job          | 17  | 38   | HIGH    |
| 6   | Conflicting work mates, family etc | 17  | 38   | HIGH    |
| 7   | Conflicting instructors            | 17  | 38   | HIGH    |
| 8   | Too many responsibilities          | 17  | 38   | HIGH    |

|             |                                                                      |    |    |      |
|-------------|----------------------------------------------------------------------|----|----|------|
| 9           | Deadline pressures                                                   | 17 | 38 | HIGH |
| 10          | Boring schedules                                                     | 17 | 38 | HIGH |
| 11          | Too many changes in life                                             | 17 | 38 | HIGH |
| 12          | Lack of motivation                                                   | 17 | 38 | HIGH |
| 13          | Difficult finding housing                                            | 17 | 38 | HIGH |
| 14          | Little emotional support from family                                 | 17 | 38 | HIGH |
| 15          | Poor appraisal                                                       | 17 | 38 | HIGH |
| 16          | Parent/Partners have set standards and expectations that is too high | 17 | 38 | HIGH |
| 17          | Unclear goals                                                        | 17 | 38 | HIGH |
| 18          | Too many interruptions                                               | 17 | 38 | HIGH |
| 19          | Health problems                                                      | 17 | 38 | HIGH |
| 20          | Dependency on alcohol, drugs                                         | 17 | 38 | HIGH |
| 21          | Too much socializing                                                 | 17 | 38 | HIGH |
| 22          | Lack of career/life goals                                            | 17 | 38 | HIGH |
| 23          | Speaking/test taking on anxiety                                      | 17 | 38 | HIGH |
| 24          | Lack of self esteem                                                  | 17 | 38 | HIGH |
| 25          | Lack of relationship, friends                                        | 17 | 38 | HIGH |
| <b>Mean</b> | $\sum fx/n =$                                                        |    |    |      |

**Source:** Field Survey, 2020.

Calculation of level of stress:  $25(17) (1) + 25(38) (3)/52 = 62.98$

Above indicated individual level of stress which falls under the range of Scores from 60- above: burnout disaster.

**Question Two:** What are the factors that induce stress among non-teaching staff in Federal Polytechnic Mubi?

**Table 2: Responses on factors that induce stress among workers in Fed. Poly. Mubi**

| S/N | Statements                                    | Agree | Disagree | Remarks  |
|-----|-----------------------------------------------|-------|----------|----------|
| 1   | Awareness of other paying job                 | 26    | 26       | Moderate |
| 2   | Awareness of minimum wages                    | 26    | 26       | Moderate |
| 3   | Socially imposed demand                       | 26    | 26       | Moderate |
| 4   | Self-imposed demand                           | 26    | 26       | Moderate |
| 5   | Delay in payment of salary                    | 26    | 26       | Moderate |
| 6   | Inadequate salary and other financial benefit | 26    | 26       | Moderate |
| 7   | Very little work                              | 26    | 26       | Moderate |
| 8   | Very much work                                | 26    | 26       | Moderate |
| 9   | Lack of training                              | 26    | 26       | Moderate |
|     | Mean                                          | 26    | 26       | Moderate |

**Source:** Field survey, 2020.

## TEST OF HYPOTHESES

**Hypothesis One:** The level of stress among non-teaching staff in Federal Polytechnic Mubi do affect their performance.

Table 3: A2x2 contingency table of responses of Bursary staff and Registry staff on level of stress among workers in Federal polytechnic Mubi.

| Department                   | Stress |          | Row total |
|------------------------------|--------|----------|-----------|
|                              | Low    | High     |           |
| Bursary Staff (performance)  | 9(8.5) | 13(17.5) | 26        |
| Registry staff (performance) | 8(8.5) | 11(17.5) | 26        |
| Column total                 | 28     | 35       | 52        |

**Source:** Field survey, 2020.

Table 3: Computation of Chi-Square ( $X^2$ ) test of independence for test of the null hypothesis one ( $H_{01}$ ); the level of stress among employees in Federal Polytechnic affect their performance, using the Chi-Square formula

$$X^2 = \sum (F_o - F_e)^2 / F_e$$

| Cell  | Fo | Fe   | Fo-Fe | (Fo-Fe) | (Fo-Fe) <sup>2</sup> /Fe |
|-------|----|------|-------|---------|--------------------------|
| R1C1  | 9  | 8.5  | 0.5   | 0.25    | 0.03                     |
| R1C2  | 17 | 17.5 | -0.5  | 0.25    | 0.01                     |
| R2C1  | 8  | 8.5  | -0.5  | 0.25    | 0.03                     |
| R2C2  | 18 | 17.5 | 0.5   | 0.25    | 0.01                     |
| $X^2$ | =  |      |       |         | 0.08                     |

**Source:** Field survey, 2020

Result for test for hypotheses one is represented as follows

Table 4:  $H_{01}$ : the level of stress among non-teaching staff in Federal Polytechnic affect their performance.

| Department | Number | Mean | DF | P    | $X^s$ cal | $X^s$ tab | Decision |
|------------|--------|------|----|------|-----------|-----------|----------|
| Registry   | 18     | 2.89 | 1  | 0.05 | 0.08      | 3.84      | Accept   |
| Bursary    | 34     | 1.29 |    |      |           |           |          |

Source: Field survey, 2020

**Hypothesis Two:** The factors that induce stress among non-teaching staff in Federal Polytechnic Mubi does not depends on department.

Table 5. A2x2 contingency table of responses of Registry and Bursary on the factors that induce stress among non-teaching staff in Federal Polytechnic Mubi does not depends on department.

| Department   | Job Satisfaction |        | Row total |
|--------------|------------------|--------|-----------|
|              | Low              | High   |           |
| Registry     | 13(13)           | 13(13) | 26        |
| Bursary      | 13(13)           | 13(13) | 26        |
| Column total | 26               | 26     | 52        |

**Source:** Field survey, 2020

Table 5: Computation of Chi-Square ( $X^2$ ) test of independence for test of the null hypothesis one ( $H_{03}$ ); the factors that induce stress among non-teaching staff in Federal Polytechnic Mubi does not depends on department using Chi-Square formula:

$$X^2 = \sum (F_o - F_e)^2 / F_e$$

| Cell  | Fo | Fe | Fo-Fe | (Fo-Fe) | (Fo-Fe) <sup>2</sup> /Fe |
|-------|----|----|-------|---------|--------------------------|
| R1C1  | 13 | 13 | 00    | 00      | 00                       |
| R1C2  | 13 | 13 | 00    | 00      | 00                       |
| R2C1  | 13 | 13 | 00    | 00      | 00                       |
| R2C2  | 13 | 13 | 00    | 00      | 00                       |
| $X^2$ | =  |    |       |         | 00                       |

**Source:** Field survey, 2020

Result for test for hypotheses three is represented as follows

Table 6:  $H_{03}$ : the level of stress among non-teaching staff in Federal Polytechnic does not depend on department.

| Department | Number | Mean | DF | P    | $X^s$ cal | $X^s$ tab | Decision |
|------------|--------|------|----|------|-----------|-----------|----------|
| Registry   | 26     | 2.00 | 1  | 0.05 | 0.00      | 3.84      | Accept   |
| Bursary    | 26     | 2.00 |    |      |           |           |          |

**Source:** Field survey, 2020

## RESEARCH OF FINDINGS

Based on the analysis of the data collected fir this study, the major findings were as follows:

1. Workers in Federal Polytechnic Mubi are persistent coppers who cope and handle stress in most situations, but have some difficulty coping and feel overwhelmed some times. This indicated that workers have high stress that they could handle and cope with in most situation especially when they have good plans for handling and reducing stress.
2. Causes of stress among workers in Federal Polytechnic Mubi include; delay in payment of salary, inadequate salary and other financial benefit, socially and self-imposed demands, awareness of other paying jobs among others. Such factors should therefore be considered by the school management otherwise their job performance could hardly be improved
3. The level of stress among employees in Federal Polytechnic Mubi do affects their performance.
4. The factors that induce stress among workers of Federal Polytechnic Mubi does not depend on department. Therefore, treatment of stress among workers should be on the same footing otherwise there could be imbalance in the treatment.

## CONCLUSION

This study revealed that, non-teaching staff in Federal Polytechnic Mubi are persistent coppers who cope and handle stress in most situations, but have some difficulty coping and feel overwhelmed some times. This indicated that non-teaching staff have high stress that they could handle and cope with in most situations especially when they have good plans for handling and reducing stress. Non-teaching staff in Federal Polytechnic Mubi have moderate job satisfaction. Causes of stress among non-teaching staff in Federal Polytechnic Mubi include; delay in payment

of salary, inadequate salary and other financial benefit, socially and self-imposed demands, awareness of other paying jobs among others. Job satisfying factors among workers of Federal Polytechnic Mubi include; salaries, bonus and other financial allowances, advancement among others.

The level of stress among non-teaching staff of Federal Polytechnic Mubi affect their performance. The factors that induce stress among non-teaching staff of Federal Polytechnic Mubi depends on department. The job satisfying factors among non-teaching staff of Federal Polytechnic Mubi depends on department. The two-hypothesis tested at 0.05 level of significance revealed that, the level of stress among non-teaching staff of Federal Polytechnic Mubi do affect their performance and the factors that induce stress among non-teaching staff of Federal Polytechnic Mubi do not depends on department. The results from the test of hypotheses were so established from the fact both hypotheses were accepted.

### Recommendations

Based on findings of this study, the following recommendations were made:

- i. Non-teaching staff in Federal Polytechnic Mubi should have individual plan for handling and managing stress in order to maintain a fair level of stress that could not affect their job performance as well as their satisfaction at work and in their personal life situation.
- ii. Non-teaching staff of Federal Polytechnic Mubi should learn to adjust themselves (their behavior) in response to personally and socially imposed demands, in order to improve on their level of satisfaction. Non-teaching staff Mubi workers should also learn to optimize allocation of their resources in order to reduce regret.
- iii. Non-teaching staff should stop delay in payment of salaries. Salaries and allowances should be adequate to the extent that at least the national minimum wage standard should be met.
- iv. Non-teaching staff should use financial benefits (salary, bonus, allowances and so on) to motivate their workers to perform, to reduce frustration and labor turn over.

### REFERENCES

- Ahmad, A., & Afgan, S. (2016). The relationship of job stress and turnover intention in commercial banks of Pakistan by assessing the mediating role of burnout. *Journal of Business Strategies*, 10(1), 1.
- An, J., Liu, Y., Sun, Y., & Liu, C. (2020). Impact of Work–Family Conflict, Job Stress and Job Satisfaction on Seafarer Performance. *International Journal of Environmental Research and Public Health*, 17(7), 2191.
- Banerjee, S., & Mehta, P. (2016). Determining the antecedents of job stress and their impact on job performance: A study among faculty members. *IUP Journal of Organizational Behavior*, 15(2).
- Bjaalid, G., Olsen, E., Melberg, K., & Mikkelsen, A. (2019). Institutional stress and job performance among hospital employees. *International Journal of Organizational Analysis*.

- Dehghan, H., Mobinyzadeh, V., & Habibi, P. (2016). The Effects of Heat Stress on Job Satisfaction, Job Performance and Occupational Stress in Casting Workers. *Jundishapur Journal of Health Sciences*, 8(3).
- Dehghani, A., Bahariniya, S., & Servat, F. (2020). The Relationship between Job Stress and Job Performance in Staff Staff of Shahid Sadoughi University of Medical Sciences in Yazd in 2019. *Tolooebehdasht*, 19(2), 72-84.
- Deng, J., Guo, Y., Ma, T., Yang, T., & Tian, X. (2019). How job stress influences job performance among Chinese healthcare workers: a cross-sectional study. *Environmental health and preventive medicine*, 24(1), 2.
- Eu, H. S., & Lee, J. S. (2020). Relationship among Emotional Labor, Job Stress and Job Performance in Social Workers. *Journal of Digital Convergence*, 18(6), 501-511.
- Hassan, M., Azmat, U., Sarwar, S., Adil, I. H., & Gillani, S. H. M. (2020). Impact of Job Satisfaction, Job Stress and Motivation on Job Performance: A Case from Private Universities of Karachi. *Kuwait Chapter of the Arabian Journal of Business and Management Review*, 9(2), 31-41.
- Jalagat, R. (2017). Determinants of job stress and its relationship on employee job performance. *American Journal of Management Science and Engineering*, 2(1), 1-10.
- Jayashree, R. (2010). Stress management with special reference to public sector bank employees in Chennai. *International Journal of Enterprise and Innovation Management Studies*, 1(3), 34-35.
- Jayasinghe, C., & Mendis, M. V. S. (2017). Stress and job performance: a study on banking sector of northern region of Sri Lanka. *International Journal of Research Publications*, 1(1).
- Logan, M. S., & Ganster, D. C. (2005). An experimental evaluation of a control intervention to alleviate job-related stress. *Journal of Management*, 31(1), 90-107.
- Lord, H. G. (1973). Ex Post Facto Studies as a Research Method. Special Report No. 7320.
- Montani, F., Courcy, F., & Vandenberghe, C. (2017). Innovating under stress: The role of commitment and leader-member exchange. *Journal of Business Research*, 77, 1-13.
- Premalatha, D. S., & Subramanian, S. (2020). An Empirical Relationship between Stress and Job Performance: A Study with Private School Teachers. *Indian Journal of Public Health Research & Development*, 11(1), 57-60.
- Sari, Y. (2020). Predictors of Job Performance: Moderating Role of Conscientiousness. *International Journal of Innovation, Creativity and Change*, 11.

- Selye, H. (1973). The Evolution of the Stress Concept: The originator of the concept traces its development from the discovery in 1936 of the alarm reactions to modern therapeutic applications of syntoxic and catatoxic hormones. *American scientist*, 61(6), 692-699.
- Szabo, S., Yoshida, M., Filakovszky, J., & Juhasz, G. (2017). "Stress" is 80 years old: from Hans Selye original paper in 1936 to recent advances in GI ulceration. *Current pharmaceutical design*, 23(27), 4029-4041.
- Vijayan, M. (2017). Impact of Job Stress on Employees Job Performance in Aavin, Coimbatore. *Journal of Organisation and Human Behaviour*, 6(3), 21.