

Occupational Stress of University Teachers of Assam: Does Ownership Status of Universities Matter?

Dharitri Baishya^{1*} and Nagari Mohan Panda²

¹Research Scholar, Department of Commerce, North-Eastern Hill University, Shillong, Meghalaya. E-mail: dharu.ninsu@gmail.com

²Professor, Department of Commerce, North-Eastern Hill University, Shillong, Meghalaya. E-mail: nagaripanda@yaboo.com

*Corresponding Author

To cite this paper

Baishya, D., & Panda, N.M. (2022). Occupational Stress of University Teachers of Assam: Does Ownership Status of Universities Matter?. *Orissa Journal of Commerce*, 43(2), 144-160.

Keywords

Central, Occupational stress, Private university, State university, Teachers

JEL Classification

C10, C22, H52, L31

Abstract: This paper aims to measure and compare the occupational stress level of teachers in central, state, and private universities of Assam, a large state located in Northeast India. It also intends to investigate the relative intensity of various stressors among the teachers. Administering a structured questionnaire-based survey, we collected data from 536 university teachers and analyzed it by deploying Kruskal-Wallis H- test. Our findings indicate that teachers in central universities experience a higher level of occupational stress than their counterparts in state and private universities. While teachers' lack of control and student related issues are the critical stress sources in state and private universities, workload, excessive formalities, and lack of recognition are the major stressors in central universities. While unfolding the relative intensity of various stressors in different types of universities, the paper's empirical findings contribute to stress research by offering insights into the stress issues encountered by university teachers.

1. Introduction

Stress has become a buzzword in day to day lives of every individual. According to a survey performed as part of ADP's Global Workforce View 2020, over 70% of Indian employees are stressed at least once a week on a regular basis, which is much higher than the Asia-Pacific average of 60%. However, occupational stress to a certain level activates individuals for increased efforts, commitment, satisfaction, positive effect, and productivity; beyond that level, it adversely affects these outcomes (McGowan *et al.*, 2006). The growing relevance of this field of study has prompted researchers to investigate employees' stress in various occupational settings worldwide. Teaching is one of the professions that have undergone a massive transformation during the previous few decades. Traditionally, professors were revered as Gods, but, in recent years, teachers and students have been placed on the same footing. Eventually, the roles have been inverted, with students being worshipped as Gods, much like consumers are treated like

Gods in the market system. Moreover, the growing importance of the knowledge economy in the post-neoliberal era has led to the rapid expansion of the higher education sector. There has been a transition in the traditional universities that supported academic freedom until the nineteenth century to research-oriented institutions in the twentieth century and presently market-controlled universities in the twenty-first century (Chattopadhyay, 2020). Although the transformation of the higher education sector has contributed to the socio-economic upliftment of the country, the system suffers from numerous deficiencies that hinder it from building world-class universities. Sclerotic bureaucracy, high levels of corruption, and political influence ingrained in the system hamper innovation and undermine academic meritocracy and research culture (Altbach, 2013), resulting in depletion of energy and motivation level of the teachers. As teachers are cognitively engaged in their work, their performance is influenced by organizational climate and morale. Occupational stress dampens the positive association between cognitive job engagement and a teacher's performance (Adil and Khan, 2020). In order to prevent the teachers from excessive stress, it is imperative for the authorities of the educational institutions, including universities, to identify their occupational stressors and their intensity that are likely to differ depending on the macro and micro-organizational climate.

In the Indian context, empirical studies on occupational stress of university teachers are mostly concentrated in the northern region of India (Kang and Sidhu, 2015; Singh and Jain, 2015; Garg and Garg, 2020) however, no systematic study exists in the north-eastern region, a developing region with unique cultural, geographical, economic, and political diversity. This region is characterized explicitly by tribal domination, hilly terrain, and the prevalence of insurgency and terrorism, often creating obstacles to the region's overall progress. The difference in the socio-economic and cultural settings could cause not only a difference in almost all the parameters determining the work environments in various universities but also a difference in the perception of the teachers. Furthermore, Assam is the largest state in the north-eastern region, with the highest number of universities, including affiliating, unitary, and state-owned (central and state governments). The differences in these universities' ownership structure or governance determine their policies, funding pattern, resource allocation, infrastructure, pay structure, transparency, empowerment, the delegation of authority, etc. These aspects of the academic environment develop a work culture, which varies from university to university, depending upon the type of ownership, i.e., central, state, or privately owned. For instance, a study in Indian universities (Arora and Singh, 2017) outlined that hierarchical culture prevails in public universities characterized by formal rules and regulations, whereas a clan culture is practiced in private universities, which gives rise to a cohesive working environment. Accordingly, the levels and sources of occupational stress and their severity could vary in each type of university due to their systemic background. Moreover, when it comes to a particular stress source, its severity on an individual teacher depends on the interaction of many inter-dependent factors. For instance, the stress caused by the factor 'workload' might rely on 'salary', 'degree of autonomy', and 'availability of supporting resources,' etc., which in turn are influenced by the ownership status of the university. Considering this complexity involved in the effect of a particular stress source in a specific work environment, it becomes imperative to discover whether it remains independent or fluctuates depending on the ownership status of the university. Given these gaps in the literature, the following research questions have been addressed in this study: what is the

level of occupational stress in university teachers in Assam, India? Secondly, how intensive are the occupational stressors in central, state, and private university teachers?

The current paper determines the occupational stress level of the teachers in three types of universities and reveals that the teachers in central universities experience a higher level of occupational stress, followed by their counterparts in state and private universities. Further, the study unfolds the relative intensity of various stressors and points out the most influencing stressors in different types of universities. While the extant literature reveals the stress level of teachers in one type of university or compares their stress levels between public versus private universities, the present study is unique. The present paper, considering a sample drawn from three types of universities, i.e., central, state, and private, offers for the first time a comparative picture of university teachers' stress levels in the context of Assam. The study's findings, on the one hand, add to the existing literature on the subject by revealing the pattern and severity of university teachers' stress in Assam and, on the other hand, provide valuable information about various stressors that the concerned stakeholders in higher education in the state can take into account while designing intervention programs at their respective levels.

2. Review of Literature

2.1. Conceptual Development of the Phenomenon 'Occupational Stress'

The concept of stress paves its way back to ancient times when the primitive man used to experience exhaustion and loss of strength after extended exposure to cold or heat, blood loss, excruciating dread, or any sort of sickness, making him realize that he had gone beyond the bounds of what he could reasonably handle (Selye, 1973). Dr. Hans Selye, also known as the father of stress research, first introduced the term in life science in 1936 by defining it as "the non-specific response of the body to any demand placed upon it" (Selye, 1956). However, researchers noticed that this physiological approach to stress does not consider the differences in individual perceptions of the situation. Therefore, later organizational psychologists such as Lazarus and his colleagues introduced psychological aspects such as individual appraisal and coping mechanisms in the stress process. In this paradigm, stress is defined as a process of transaction or interaction between an individual and his/her perception of the environment (Lazarus and Folkman, 1984). Various other stress models have been developed based on this perspective, including Person-Environment Fit Model (French *et al.*, 1974), Demand-Control Model (Karasek *et al.*, 1979), Effort-Reward Imbalance Model (Siegrist *et al.*, 1990), etc. The first large-scale research program concentrating on workplace stress and psychosocial variables affecting employee well-being was conducted at the University of Michigan in the early 1960s, ushering off a significant new wave of stress research. Researchers in various studies have used terms such as occupational stress, job stress, or workplace stress to examine employees' stress in different occupations. Caplan *et al.* (1975) defined job stress as "any aspects of the work environment that represent a hazard to the individual." According to National Institutes for Occupational Safety and Health (NIOSH, 1999), job stress is characterized as the unpleasant physical and emotional reactions that occur when a worker's abilities, resources, or needs do not match the job's demands. This indicates that the stress phenomenon has undergone a tremendous transformation because of its subjective nature, making it difficult to arrive at a definitive definition.

2.2. University Work Environment and Teachers' Occupational Stress

Research on teacher-related stress began to appear in the occupational stress literature in the mid-1970s. Teacher stress is a negative and unpleasant emotional experience, including anxiety, depression, tension, anger, or frustration, that arises when teachers perceive their work situation as a threat to their self-esteem and welfare (Kyriacou and Sutcliffe, 1977). The amount of occupational stress and the stress sources teachers experience are determined by the institutional setting in which they work. The higher education sector in India is divided into three levels: university, college, and course. Based on the nature of management, universities that grant their degrees are categorized into five types: central university, state university, private university, institutions-deemed-to-be-a-university, and institute of national importance. These universities differ based on numerous facets such as their funding, infrastructure, governance, teachers' recruitment procedure, size and complexity, workload, social status, recognition, etc. (Agarwal, 2006). All these aspects have capitulated under the four following broad headings:

2.2.1. Funding and Infrastructure

The central and state universities are public educational institutions governed and financed by central and state governments, respectively (Agarwal, 2006). Although a differential fee structure is observed in favour of the state universities, their overall financial strength is relatively lower than their central counterparts because of the sole reason that the level of government funding of central universities is somewhat higher than that of the state universities (Panigrahi, 2017). According to the University Grants Commission (UGC) Annual Report for 2017-18, the total revenue and capital grants released for central universities were 58.76%, in contrast to only 4.90% for the state universities. On the contrary, private universities are controlled by members of the sponsoring societies or trusts. The funding source of these types of institutions is mostly university generated through donations or capitation fees (University Grants Commission [UGC], 2003). Following other service and industrial sectors, the private universities in India follow the fee-charging approach of high-fee – high-quality, low-fee – low-cost, or low-fee – high-quality strategy (Aithal and Revathi, 2017). These universities primarily maintain an excellent 21st-century infrastructure (Powar, 2015) to attract more students and sustain themselves without financial support from the central or state government (Aithal *et al.*, 2018). On the other hand, many state universities have failed to maintain adequate buildings, ICT laboratories, library resources, security systems, access to research data and journals, transportation facilities, and other stationary facilities, such as restrooms (Reddy *et al.*, 2016).

2.2.2. Size and Complexity

The private universities being relatively smaller in size are engaged in offering fewer academic programs than state and central universities. These universities mainly offer diploma and vocational programs rather than degree programs in liberal disciplines (Government of India [GOI], 2013). Public universities are more focused on conventional subjects such as arts and science, whereas; private universities are mainly concentrated on market-driven disciplines such as engineering, management, and medicine (UGC, 2011). According to the All-India Survey on Higher Education [AISHE], 2017-2018, postgraduate

students are relatively higher in central universities, whereas undergraduate students are higher in private universities. There is not much difference in enrolment of undergraduates and postgraduates in state universities. Furthermore, the class sizes of state universities are larger compared to central and private universities. As per the Twelfth Five Year Plan, only 6% of students studying in public institutions are enrolled in central universities, whereas 94% of pupils are enrolled in state-controlled public universities (GOI, 2013).

2.2.3. Governance and Structure

Due to the systematic predetermined procedures, often codified as Ordinances and Regulations, structural ambiguity is lower in central universities than in state universities. Owing to relatively a lesser degree of pluralism in various decision-making bodies and sponsor-centric decision approaches, private universities are perceived with a higher degree of structural ambiguity. In contrast, the lengthy bureaucratic procedures involved in recruitment, administration, admissions, examinations, and assessment reduce central and state universities' flexibility compared to private ones. The flexibility is relatively more affected in state universities due to the interference of political parties in the various decision-making processes (Altbach, 1993; Urvashi, 2021). In terms of the recruitment process, private institutions function more like a business, with the opinion of sponsoring organizations having a significant effect on the selection of a teacher. The quality of the teacher is compromised as more importance is given to teaching experience instead of their research publications (Reddy *et al.*, 2016). Likewise, the recruitment in state universities is mostly shaped by local influential or politically powerful persons. Various political parties exert pressure on the administration during the recruitment process to promote their candidate. While a rigorous and competitive selection process is applied in the recruitment of a teacher in most central universities, enabling them to attract the most competent brains from the various Indian universities and even from abroad (Srikanth, 2001).

2.2.4. Workload, Social Status, and Recognition of the Teachers

Teachers in universities are mainly engaged in three activities: teaching, research, and extra-academic or institutional duties (Ravi *et al.*, 2019). The teachers in private universities are engaged more in extra-academic activities or institutional duties than their core job of teaching and research. As a result, teachers' workload is observed to be higher than state and central universities. It is evident from two Indian studies that teachers in the private sector reported more dissatisfaction with workload than their public counterparts (Ahmad *et al.*, 2015; Kaur and Sharma, 2016). Teachers in the public sector, on the other hand, devote more time to research, as reported by Ahmad *et al.* (2015), whereas the private sector teachers are found to be more burdened with teaching due to a higher number of classes per week and are less involved in research than public sector teachers.

The predictors of stress mentioned above also impact the quality of education and research contribution of an individual teacher, which in turn determine their social status and recognition. The centrally controlled universities are of higher quality and are referred to as 'islands of excellence' (Ravi *et al.*, 2019). The opportunity to improve the quality and focus on research and academics is more elevated in central universities as these universities receive plan grants rather than non-plan grants, as

in the case of state universities. Plan grants are intended to attract specific projects or objects, whereas non-plan funds are used to manage the institutions on a day-to-day basis (Ravi *et al.*, 2019). As a result, the central university teachers usually enjoy a higher social status and recognition than their state and private counterparts. In the case of private universities, except for a few ones, others are functioning at low standards and are alleged for taking bribes and providing easy degrees (Ravi *et al.*, 2019). A teacher affiliated with such universities is likely to suffer from low self-esteem and self-efficacy.

Considering the public and private sector organizations' distinct governance systems, structures, and procedures, their employees are likely to have different job expectations, attitudes, feelings, and overall working behavior. Previous researchers have explored the differences in these work environment facets in various types of universities and colleges and their influence on the well-being of teachers (Singh, 2014; Mkumbo, 2014; Singh and Jain, 2015; Kang and Sidhu, 2015; Ahmad *et al.*, 2015; Kaur and Sharma, 2016; Ansah-Hughes *et al.*, 2017; Záborská *et al.*, 2018; Khan *et al.*, 2018; Dinc, 2018; Faisal *et al.*, 2019; Dinibutun *et al.*, 2020; Garg and Garg, 2020). Studies have found significant differences in the occupational stress level of teachers in public and private sector universities (Mkumbo, 2014; Faisal *et al.*, 2019; Garg and Garg, 2020). Few other studies have reported that private university teachers are more stressed than teachers in public universities (Faisal *et al.*, 2019; Garg and Garg, 2020), whereas another study has found that public university teachers are more stressed than their counterparts in private universities (Mkumbo, 2014). Public universities are well-known for their highly qualified academic and administrative staff. However, they confront bureaucratic and budgetary obstacles while investing in academic infrastructure and amenities to enhance educational standards, such as modernizing laboratories and lecture rooms, teaching aids, and other learning resources. On the other hand, private universities have modern facilities and sophisticated educational standards, but they usually lack skilled academic and administrative personnel (Dinc, 2018). When comparing the management practices of the two sectors, private universities are found to be weak in areas such as recruiting procedures, assessment systems (ambiguous), remuneration packages (relatively poor on average), and managerial freedom (restricted). In contrast, public universities face merit-based recruiting processes tainted by political meddling, a lack of cohesion among personnel, and an ineffective monitoring system (Khan *et al.*, 2018). While teachers in public universities enjoy the advantage of job security, less work pressure, access to more training programs, and research funding, teachers in private institutions are likely to be more stressed due to fewer career advancement possibilities and a lack of research facilities (Faisal *et al.*, 2019). This implies that both types of universities have their virtues and flaws, which in turn influence the well-being of the teachers. Based on the above-discussed observations in the extant literature, we are inspired to formulate the following two objectives and hypotheses for empirical examination.

3. Objectives and Hypotheses of the Study

3.1. Objectives of the Study

The primary objectives of the present study are:

- To measure and compare the occupational stress level of teachers in central, state, and private universities of Assam.

- To investigate the intensity of occupational stressors in central, state, and private university teachers.

3.2. Hypotheses of the Study

The specific hypotheses of this study are:

H₀₁: The level of occupational stress of university teachers remains independent of the ownership status of their university.

H₀₂: The effect of a particular stressor on university teachers is independent of the ownership status of their university.

4. Research Methodology

4.1. Research Design

The current study employed a cross-sectional survey-based research design using quantitative research methods.

4.2. Population and Sample

The study population comprises teachers working in three types of institutions in Assam, i.e., central, state, and private universities. Universities that offer Humanities and Social Science (HSS) and Core Science and Technology are included. A two-stage sampling technique was adopted. In the first stage, the two oldest universities were selected from each category based on their year of establishment. In the second stage, targeting a minimum coverage of one-third of the total teachers from each university, the teachers satisfying two conditions (permanent nature of appointment and a minimum of two years of experience in the current institution) available in the university (all the departments) on a random visit were approached to be the respondents of the survey on a voluntary basis. In the process, 550 teachers were approached and administered the questionnaire. A total valid response of 536 teachers was received from the six universities, with an overall response rate of 97.5%. On university category-wise classification, our sample comprises 222 teachers from two central universities: Assam University (127) and Tezpur University (95), 210 from two state universities: Gauhati University (115) and Dibrugarh University (95), and 104 from two private universities: Assam Don Bosco (54) and Kaziranga University (50). On the further classification of the respondents based on their academic position, our sample includes 38%, 52%, and 43%, respectively of the total strength of the professors, associate professors, and assistant professors permanently employed in those six universities. Thus, our sample is considered a genuine representation of the population when viewed from the respondents' university affiliation and academic position.

4.3. Variables

As per the purpose of the study, occupational stress is considered the dependent variable, while the ownership status of the university (central, state, and private) is the independent variable. For operationalization of the study, occupational stress is defined as the subjective response of teachers towards the various aspects of their university environment that are perceived to influence them

negatively. While the dependent variable is measured on a 5-point Likert scale, the independent variable is measured on a nominal scale.

4.4. Tools

Data are collected by administering a sixty-nine-item structured questionnaire on teachers' occupational stress marked on a 5-point Likert scale; anchors range from strongly disagree to strongly agree. The items are designed based on the tools widely used and advocated by earlier researchers, such as Faculty Stress Index (FSI) developed by Gmelch *et al.* (1984), the Stress tool for university teachers by Kinman and Jones (2003), Occupational Stress Index (OSI) by Srivastava and Singh (1981), etc. The selected items are related to twenty work-related aspects, including salary, promotion, reward and recognition, low status at the job, funding and support services, poor management, lack of control, formalities, role conflict, role erosion, workplace politics, relationships at work, time constraints, workload, nature of the job, career development, poor competence of the teacher, student-related issues, change in the workplace, and home-work interface. Examples of items included in the questionnaire are "high level of competition within the workplace has reduced my chances for promotion" under the factor "promotion," "I am receiving insufficient recognition for teaching, research performance, and institutional duties" under "reward and recognition," "I have to take my institutional work home" under "home-work interface" etc. To ensure the reliability of the questionnaire, Cronbach alpha (α) is computed, which is 0.96 for the comprehensive questionnaire. On computing factor-wise, α is found to be greater than 0.63 for all of the occupational stress factors. It is important to note that the questionnaire was initially pilot-tested with 100 teachers, and the final questionnaire was developed with the necessary changes based on their feedback.

4.5. Statistical Techniques

The normality of the data is tested by employing Kolmogorov-Smirnov and Shapiro-Wilk tests, which showed significant ($p < 0.05$) results for both the tests, indicating that the data did not fit the normal distribution. Kruskal Wallis H-test and Mean Ranks (MR) are computed to examine the significant differences in teachers' occupational stress according to the ownership status of their university, i.e., central, state, and private, at a 5% level of significance. Furthermore, the occupational stress levels are classified into three categories of low, moderate, and high (considering moderate range as mean \pm 1 standard deviation), and teachers' frequency was determined against each category of stress level. Descriptive statistics such as means, standard deviations, frequencies, and percentages are used to describe the data. Statistical analysis of the data was carried out using the IBM SPSS software package version 22.0.

5. Data Analysis

5.1. Description of Demographic Characteristics

The sample (N= 536) characteristics comprise 134 (25%) professors, 74 (14%) associate professors, and 328 (61%) assistant professors. Out of the total 536 teachers, 350 (65%) are males, and 186 (35%)

are females. When classifying according to age, 45 (8%) teachers are under 30 years of age, 226 (42%) are between 31 and 40 years, 166 (31%) are between 41 and 50 years, and 99 (19%) are beyond the age of 50 years.

5.2. Occupational Stress Level

On a 5-point Likert scale, the occupational stress mean score of 536 teachers from all the six universities taken together is computed at 2.47 with a standard deviation of 0.59, as shown in Table 1. By classifying the teachers based on the magnitude of their overall occupational stress levels into three categories—high, moderate, and low stress (based on Mean \pm 1SD) and analyzing based on frequency and percentage, it is observed that about 15.67% of the teachers included in our study fall in the high-stress category whereas 66.04% in moderate stress and 18.28% in the low-stress category. Interestingly, a vast difference in percentage is found in respect of the teachers working in central universities compared to their counterparts in state and private universities in the high-stress category. Further, while a higher percentage is observed in respect of teachers working in a private university in a low-stress category, the teachers in the state university register a relatively higher percentage in the moderate stress category. This preliminary observation warrants further analysis to ascertain the statistical significance of the difference in the occupational stress level of the teachers engaged in various types of universities through H_{01} formulated in the previous section.

Table 1: Frequency of Teachers in Various Occupational Stress Categories

Ownership Status of Universities	N	Mean (SD)	Occupational Stress Categories		
			Low	Moderate	High
Private	104	2.25 (0.60)	32 (30.77)	59 (56.73)	13 (12.50)
State	210	2.48 (0.52)	31 (14.76)	152 (72.38)	27 (12.86)
Central	222	2.56 (0.62)	35 (15.77)	143 (64.41)	44 (19.82)
Total	536	2.47 (0.59)	98 (18.28)	354 (66.04)	84 (15.67)

Source: Authors' Compilation from Primary Data

Note: Figures in parenthesis indicate the percentage of the total; N = number of teachers.

While testing H_{01} , with the help of the Kruskal Wallis H-test, the results indicate a statistically significant difference in the occupational stress level of teachers in all the three types of universities, as the p-value ($p < 0.05$) is below the threshold level of significance, i.e., at 5% level of significance, as depicted in Table 2. Further, the mean rank obtained for the central universities is computed at 295.77, followed by 268.72 for the state universities and 209.84 for private universities, implying that central university teachers experience relatively a higher level of occupational stress as compared to teachers in state and private universities. The statistically significant difference found in the study shows that the level of occupational stress of university teachers varies according to the ownership status of their university. Therefore, based on the evidence observed from the analysis, we reject the study's first hypothesis.

Table 2: Results of Kruskal Wallis H-Test

<i>Ownership Status of Universities</i>	<i>N</i>	<i>Mean ranks</i>	<i>p-value</i>
Central university	222	295.77	0.000*
State university	210	268.72	
Private university	104	209.84	

Source: Authors' Compilation from Primary Data

Note: * indicates significant at 5% level ($p < 0.05$); N = number of teachers

5.3. Occupational Stress Factors

The finding of the above analysis calls for further analysis to unearth the factors causing such occupational stress differences among the teachers working in the three different types of universities. Accordingly, we have examined the influence of twenty different stressors to identify their relative impact. Based on their mean value (\bar{x}), we have identified the top five stressors for the three types of universities. For private university teachers, the top five stressors identified are student-related issues (2.79), change in the workplace (2.75), salary (2.69), poor competence of the teacher (2.61), funding, and support services (2.45). Stressors of state university teachers are formalities (3.03), change in the workplace (2.86), funding and support services (2.80), home-work interface (2.79), and workload (2.78). Top-rated stressors for central university teachers are formalities (3.05), funding and support services (2.95), change in the workplace (2.82), workload (2.78), and reward and recognition (2.73). Out of the top five stressors in central and state universities, four are common, but when it comes to private universities, three stressors out of the top five are different, namely student-related issues, salary, and poor competence of the teachers. While the factor reward and recognition is included in the top five stressors for central university teachers, the home-work interface is included in the top five stressors for the teachers in state universities. In order to establish the statistically significant difference in the impact of various stressors across the types of universities, we have examined our hypothesis H_{02} .

On testing H_{02} with the help of the Kruskal Wallis H-test, we find that out of twenty occupational stressors; sixteen stressors have shown a statistically significant difference at a 5% level of significance ($p < 0.05$) between the central, state, and private universities, as shown in Table 3. On the other hand, as the p-value is over the threshold of 0.05 (5%), no statistically significant difference in occupational stress level is detected for the other four stressors. Therefore, a statistically significant ($p < 0.05$) difference in the mean rank values in respect of the majority of the stressors is observed, providing empirical evidence to reject the study's second hypothesis. Alternatively, the study finds that the level of occupational stress caused by a particular stressor differs according to the ownership status of the university. Furthermore, a comparison of occupational stressors across the private, state, and central universities indicates the highest mean ranks for student-related issues (MR=300.17) and lack of control (MR=285.41) among private and state universities teachers, respectively. Mean ranks for stressors such as home-work interface (MR=303.76), relationships at work (MR=303.29), funding and support services (MR=297.43), time constraints (MR=291.17), role conflict (MR=291.01), workload (MR=290.28),

career development (MR=289.87), formalities (MR=289.31), role erosion (MR=288.94), low status at the job (MR=287.77), nature of the job (MR=283.58), reward and recognition (MR=283.19), poor management (MR=283.07), and workplace politics (MR=281.23) are relatively higher in central universities as compared to state and private ones.

Table 3: Occupational Stressors in the Teachers Across the Ownership Status of Universities

Occupational Stressors	Mean Rank (MR)			p-value
	Central	State	Private	
Salary	265.98	257.32	296.45	.098
Promotion	281.45	254.49	269.13	.192
Reward and recognition	283.19	272.87	228.32	.009
Low status at the job	287.77	281.43	201.25	.000*
Funding and support services	297.43	266.98	209.82	.000*
Poor management	283.07	276.89	220.47	.002*
Lack of control	283.99	285.41	201.28	.000*
Formalities	289.31	288.80	183.10	.000*
Role conflict	291.01	264.40	228.73	.003*
Role erosion	288.94	268.61	224.64	.002*
Workplace politics	281.23	273.19	231.87	.021*
Relationship at work	303.29	262.21	206.93	.000*
Time constraint	291.17	263.84	229.51	.003*
Workload	290.28	283.03	192.66	.000*
Nature of the job	283.58	277.25	218.64	.001*
Career development	289.87	261.76	236.50	.010*
Poor competence of the teacher	264.36	263.56	287.30	.381
Student related issues	268.80	252.49	300.17	.036*
Change at the workplace	268.20	274.99	256.03	.587
Homework interface	303.76	300.19	129.24	.000*

Source: Authors' Compilation from Primary Data

Note:* indicates significant at 5% level ($p < 0.05$).

6. Results and Discussion

The analysis in the previous section yields the following two results. With regard to the association between teachers' occupational stress level and the ownership status of the university, the study finds that the level of occupational stress of university teachers is associated with the ownership status of their university. The central university teachers are more stressed than their counterparts in the state

and private universities. Further, while examining the intensity of individual stressors, our results reveal that the effect of a particular stressor on university teachers varies across the ownership status of their university. A brief discussion on these results and their consistency with the outcomes of previous research is presented in the subsequent sub-sections.

6.1. Occupational Stress Levels

The result found in this study indicates that the overall occupational stress level of the teachers in all the six universities is very close to the middle point between ‘disagree’ and ‘neither agree nor disagree’, i.e., relatively a lower level of occupational stress as compared to the studies conducted in other regional settings (Kinman and Wray, 2013; De Paula and Boas, 2017). A survey conducted in UK universities found that about 73% of the teachers strongly agreed (33%) or agreed (40%) with the statement “I find my job stressful” (Kinman and Wray, 2013). While evaluating the magnitude of the stress problem (categorized into low, moderate, and high) in the regional context of our study setting, we have found that most teachers fall under the moderate stress category, followed by low stress and then the high-stress category. In line with this finding, another study conducted by Reddy and Poornima (2012) found that the majority of teachers in South Indian universities experience moderate (61%) levels of occupational stress, followed by low (26%) and high (13%) levels. In contrast, another study conducted in UK universities reported that more than half of the teachers experience high (39%) or very high (15%) levels of stress (Kinman and Wray, 2013). Similarly, in the Brazilian context, about 44% of the teachers working in two public universities reported experiencing high levels of occupational stress (De Paula and Boas, 2017). It indicates that occupational stress level is comparatively lower among Indian university teachers compared to the stress levels in the universities of other global countries.

6.2. Occupational Stress Levels according to the University Ownership Status

The finding that stress level variation exists across universities of different types has been mirrored in a few earlier studies, which show that teachers at public institutions are more stressed than their counterparts in private ones (Khurshid *et al.*, 2011; Mkumbo, 2014; Ansah-Hughes *et al.*, 2017). Both physiological and psychological stress are found to be higher in public university teachers than in private universities (Mkumbo, 2014). One possible reason for higher occupational stress levels in public universities could be the shifting political landscape and the government’s tighter grip on academic institutions to deliver the best performance. The degree of publicness involved in the institution could be another factor that might have enhanced the expectation level of the teachers in central and state universities. On the other hand, the rise in the number of temporary appointments has affected the motivation and energy level of the teachers working in these universities. About 50% of the permanent positions are vacant in the central universities of India, as reported in Draft National Education Policy in the year 2019. Moreover, a lack of elementary physical infrastructure and working conditions in most central and state universities in India compared to private universities is creating a challenge in motivating the teachers for better performance (Chattopadhyay, 2020). In contrast, Singh and Jain (2015) reported that private university teachers are more satisfied with the factors relating to their

working environment, assessment system, and lower workload than their counterparts in public universities.

6.3. Occupational Stress Sources according to the University Ownership Status

Out of twenty occupational stressors, significant differences are observed for sixteen stressors across three types of universities: central, state, and private. These significant stressors are reward and recognition, low status at the job, funding and support services, poor management, lack of control, formalities, role conflict, role erosion, workplace politics, relationships at work, time constraints, workload, nature of the job, career development, student-related issues, and home-work interface. The level of occupational stress on account of four stressors, namely salary, promotion, poor competence of the teacher, and change in the workplace, is not significantly different, indicating that the teachers experience similar occupational stress levels on account of these stressors in the three types of universities.

Mean rank comparison shows that student-related issue is the major factor of occupational stress for private university teachers compared to central and state universities. In line with this finding, a comparative study of university teachers in Pakistan found that student-related difficulties were a prominent occupational stress factor among private university teachers (Khurshid *et al.*, 2011). One possible reason could be the low quality of students at private universities, combined with management pressure to improve student performance, requiring teachers to devote more effort to their students' progress. Furthermore, students may demand more services from teachers due to the increased cost structure in the case of private universities. In the case of state universities, teachers experience more occupational stress from lack of control than their counterparts in central and private universities. This finding aligns with Karasek's Demand-Control theory, which refers to control as the persons' ability to control their job activities and posits that psychological distress occurs when there is high demand and low control in a job (Karasek *et al.*, 1979). In the case of state universities, the state government's interference in the university's administration is relatively greater than in central universities, resulting in receiving more directions from government authorities. The political influence in the appointment of institutional heads has further eroded the institutional autonomy and authority of the state universities (Varghese, 2016).

Most occupational stressors are a major concern for teachers in central universities. Factors like central government funding, higher quality, broader international exposure, and a higher tendency for inter-university mobility could be some of the reasons to push the expectation level of the teachers in central universities, and their perceived level of work realities might be falling short of meeting the expectation level. According to the Person-Environment Fit theory, a good match between a person and their environment leads to positive outcomes, whereas a poor fit leads to strains. Therefore, a mismatch between expectations and the perceived level of work realities of the central university teachers may cause dissatisfaction and increase their psychological stress (French *et al.*, 1974). Our findings are in congruence with the findings of another study conducted among the teachers of four public universities (central and state) in Punjab, India (Kang and Sidhu, 2015). The study has found that formalities, unpleasant work conditions and lack of resources, tough and dull jobs, lack of control, poor quality of students, and demanding jobs are marked as the top-rated stressors.

7. Conclusion

The present study has been undertaken to measure and compare the occupational stress level of teachers in central, state, and private universities of Assam and investigate the intensity of stressors among the teachers of these three types of universities. It is found that compared to the teachers in other global countries experiencing higher occupational stress levels, teachers of the universities in the study region experience relatively lower levels of occupational stress. From a comparative perspective, central university teachers perceive the highest occupational stress level, followed by the teachers in the state and private universities. Out of twenty occupational stressors considered in the study, sixteen stressors showed significant differences across the three types of universities. The most important factor of teachers' occupational stress in private universities is student-related issues, whereas lack of control is the major stressor for teachers in state universities. The central university teachers reported higher occupational stress concerning the stressors such as relationships at work, funding and support services, time constraints, role conflict, workload, career development, formalities, role erosion, low status at the job, nature of the job, reward and recognition, poor management, home-work interface, and workplace politics compared to their counterparts in state and private universities. Interestingly, the finding that central university teachers are more prone to occupational stress from their surrounding work environment is striking, as central universities mostly enjoy higher privileges regarding certain work aspects than state or private universities.

The study is regarded as an addition to the extant literature on teachers' stress in the university setting of Assam as it develops an understanding of the phenomenon by clearly pointing out the sources of university teachers' stress in central, state, and private universities of Assam. While indicating how their relative severity fluctuates under the ownership structure of the universities, it provides a theoretical explanation for such variation in the intensity of a stressor when a teacher's environment changes in terms of funding size, infrastructure, size and structure of the institution, governance mechanism and workload and social prestige and recognition.

Based on the reported factors of occupational stress in different universities, the statutory authorities and university administrations may implement necessary interventions and policies to promote a better work environment for the teachers. For instance, the private university authorities should adopt measures at the policy level and implement effective interventions to deal with student-related issues. Instead of focusing on the number of students, university managers should concentrate on enhancing the quality of students at their institutions. As for the state universities, the policies should be implemented to boost the teachers' participation in various levels of decision-making of the institution and provide them more autonomy and freedom in their academic pursuits. Similarly, in the case of the central universities, the authorities should develop a more comprehensive stress management program to address multiple stressors like workload, role conflict, funding, research support, and home-work interface to create a desirable working environment where the teachers can work with optimum stress.

8. Limitations and Future Scope of the Study

The study is not left apart from a few drawbacks that open up the scope for future research in the field of occupational stress of university teachers. Due to the limited sample size and geographical space

confined to only one state, the current results cannot be generalized to India's entire population of university teachers. Further research in this area may include diverse samples from various regions to enhance the generalizability of the results. Secondly, the accuracy of the data may be impacted by the respondent's biasness in marking the answers due to the adoption of a self-reported questionnaire. A mixed-method, including a questionnaire and structured interview, could be adopted to collect more appropriate responses to avoid this error. Moreover, the present study is limited to a few selected variables related to university teachers. Therefore, further analysis may include more variables related to socio-demographic characteristics, personality traits, other organization-related variables, etc., of the teachers and examine their structural association with occupational stress and other outcome variables in the university context. The occupational well-being of an employee depends primarily on the nature of the work environment and the factors associated with it. Therefore, a systematic assessment of teachers' work environment is of utmost importance to provide a stress-free culture that would create a bright future for the upcoming generation of the country.

References

- Adil, M. S., & Khan, U. (2020). Antecedents of Cognitive Job Engagement and its Effect on Teacher Performance: Moderating Roles of Occupational Stress and Mentoring. *The Journal of Education & Social Sciences*, 8(1), 31-59.
- Ahmad, A., Khan, M. U., Srikanth, A. B., Patel, I., Nagappa, A. N., & Jamshed, S. Q. (2015). Evaluation of workload and its impact on satisfaction among pharmacy academicians in Southern India. *Journal of clinical and diagnostic research: JCDR*, 9(6), FC01-FC06.
- Agarwal, P. (2006). *Higher education in India: The need for change* (No. 180). Working paper.
- Aithal, P. S., & Revathi, R. (2017). Comparison of Private Universities in India based on NIRF Ranking and Fee Charging Strategies. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 1(2), 72-85.
- Aithal, P. S., Kumar, A., & Revathi, R. (2018). Investigation of Business Strategies in Higher Education Service Model of Selected Private Universities in India. *International Journal of Computational Research and Development (IJCRD)*, 3(1), 77-100.
- Altbach, P. G. (2013). India's effort to join 21st-century higher education. *The International Imperative in Higher Education* (pp. 171-174).
- Ansah-Hughes, W., Owusu-Darko, I., & Acheampong, P. N. P. (2017). A comparative study of occupational stress level among private and public sector teachers in the Techiman South Circuit. *European Journal of Open Education and E-learning Studies*, 2(1), 1-24.
- Arora, S., & Singh, A. (2017). Organizational Culture Analysis: A Study of Selected Government and Private Universities of Haryana. *Asian Journal of Management*, 8(3), 407-412.
- Caplan, R. D. (1975). *Job demands and worker health: Main effects and occupational differences*. US Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control, National Institute for Occupational Safety and Health.
- Chattopadhyay, S. (2020). Academic freedom, institutional autonomy and institutionalising accountability: A reflection on the National Education Policy 2020. *The JMC Review*, 4, 1-23.
- De Paula, A. V., & Boas, A. A. V. (2017). Well-being and Quality of Working Life of University Professors in Brazil. In A. A. V. Boas (Ed.), *Quality of Life and Quality of Working Life* (pp. 187-210).

- Dinc, M. S. (2018). Direct and indirect effect of ethical leadership on employee behaviours in higher education. *International Journal of Management in Education*, 12(3), 201-222.
- Dinibutun, S. R., Kuzey, C., & Dinc, M. S. (2020). The Effect of Organizational Climate on Faculty Burnout at State and Private Universities: A Comparative Analysis. *SAGE Open*, 10(4), 1-19.
- Faisal, F., Noor, N., & Khair, A. (2019). Causes and Consequences of Workplace Stress among Pakistan University Teachers. *Bulletin of Education and Research*, 41(3), 45-60.
- French, J. R. P., Jr., Rodgers, W. L., & Cobb, S. (1974). Adjustment as person-environment fit. In G. Coelho, D. Hamburg, & J. Adams (Eds.), *Coping and adaptation* (pp. 316-333).
- Garg, A., & Garg, A. (2020). Analysis of Organizational Role Stress among Teachers in Government and Private Universities in Haryana State. *ANWESH: International Journal of Management and Information Technology*, 5(1), 8-15.
- Gmelch, W. H., Lovrich, N. P., & Wilke, P. K. (1984). Sources of stress in academe: A national perspective. *Research in higher education*, 20(4), 477-490.
- Government of India (GOI) (2013): Twelfth Five Year Plan (2012-17) Social Sectors. III. New Delhi: Planning Commission.
- Kang, L. S., & Sidhu, H. (2015). Identification of Stressors at Work: A Study of University Teachers in India. *Global Business Review*, 16(2), 303-320.
- Karasek Jr, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative science quarterly*, 24(2), 285-308.
- Kaur, K., & Sharma, D. (2016). A comparative study of QWL among university teachers. *IOSR Journal of Business and Management*, 2(2), 106-120.
- Khan, N., Aajiz, N. M., & Ali, A. (2018). Comparison of Management Practices in Public and Private Universities in Khyber Pakhtunkhwa. *Journal of Education and Educational Development*, 5(1), 108-122.
- Khurshid, F., Butt, Z. U., & Malik, S. K. (2011). Occupational Role Stress of the Public and Private Sector Universities Teachers. *Language in India*, 11(8), 354-366.
- Kinman, G., & Jones, F. (2003). Running up the down escalator: Stressors and strains in UK academics. *Quality in Higher Education*, 9(1), 21-38.
- Kinman, G., & Wray, S. (2013). *Higher stress: A survey of stress and well-being among staff in higher education*. University and College Union (UCU), London, UK.
- Kyriacou, C., & Sutcliffe, J. (1977). Teacher stress: A review. *Educational review*, 29(4), 299-306.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer, New York.
- McGowan, J., Gardner, D., & Fletcher, R. (2006). Positive and negative affective outcomes of occupational stress. *New Zealand Journal of Psychology*, 35(2), 92-98.
- Mkumbo, K. (2014). Prevalence of and Factors Associated with Work Stress in Academia in Tanzania. *International Journal of Higher Education*, 3(1), 1-11.
- National Institute for Occupational Safety & Health (1999). Stress At Work Booklet (online), by the NIOSH working group: Steven Sauter, Lawrence Murphy, Michael Colligan, Naomi Swanson, Joseph Hurrell, Jr., Frederick Scharf, Jr., Raymond Sinclair Paula Grubb, Linda Goldenhar, Toni Alterman, Janet Johnston, Anne Hamilton, and Julie Tisdale), US Department of Health and Human Services (DHHS), Publication Number 99-101.

- Panigrahi, J. (2017). *Resource allocation and innovative methods of financing higher education in India*. In Varghese, N. V., Malish, C. M. (Eds), CPRHE research papers 6 (pp. 1–44), National University of Educational Planning and Administration, New Delhi.
- Powar, K. B. (2015). India's Private Universities: Solutions or Problems? *International Higher Education*, 81, 10-12.
- Ravi, S., Gupta, N., & Nagaraj, P. (2019). Reviving Higher Education in India, *Brookings India*, Research Paper No. 112019-01 (pp. 1–78),
- Reddy, G. L., & Poornima, R. (2012). Occupational stress and professional burnout of university teachers in South India. *International Journal of Educational Planning and Administration*, 2(2), 109-124.
- Reddy, K. S., Xie, E., & Tang, Q. (2016). Higher education, high-impact research, and world university rankings: A case of India and comparison with China. *Pacific Science Review B: Humanities and Social Sciences*, 2(1), 1-21.
- 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 reaction to modern therapeutic applications of syntoxic and catatoxic hormones. *American scientist*, 61(6), 692-699.
- Selye, H. (1956). *The Stress of Life*. McGraw-Hill, New York.
- Siegrist, J., Peter, R., Junge, A., Cremer, P., & Seidel, D. (1990). Low status control, high effort at work and ischemic heart disease: prospective evidence from blue-collar men. *Social science and medicine*, 31(10), 1127-1134.
- Singh, I. (2014). Predictors of occupational stress among the faculty members of private medical and engineering colleges: a comparative study. *International Journal of Science and Research*, 3(2), 406-413.
- Singh, I., & Jain, M. (2015). Impact of stress on job performance of faculty members in private universities of Punjab. *Scholarly Research Journal for Interdisciplinary Studies*, 3(21), 1235-1246.
- Srikanth, H. (2001). Recruitment of Teachers in Universities: A Proposal. *Economic and Political Weekly*, 36(36), 3485-3488.
- Srivastava, A. K., & Singh, A. P. (1981). Construction and standardization of an occupational stress index: A pilot study. *Indian journal of clinical psychology*, 8(2), 133–136.
- University Grants Commission (2003). UGC (Establishment of and Maintenance of Standards in Private Universities) Regulations, 2003.
- University Grants Commission (2011). Inclusive and Qualitative Expansion of Higher Education. Compilation Based on the Deliberations of the Working Group for Higher Education in the 12th Five-Year Plan (2012-17).
- Urvashi, S. (2021). Reimagining crises in the Indian university. *Human Arenas*, 4(3), 430-439.
- Varghese, N. V. (2016). Managing markets and massification of higher education in India. *International Higher Education*, (86), 13-15.
- Zábrodská, K., Mudrák, J., Šolcová, I., Kviton, P., Blatný, M., & Machovcová, K. (2018). Burnout among university faculty: The central role of work–family conflict. *Educational Psychology*, 38(6), 800-819.