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Impact of Occupational Stress on Job Satisfaction and Productivity: Evidence from SBI Branches across Bihar

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ABSTRACT

This study investigates the impact of occupational stress on job satisfaction and employee productivity in the SBI branches across Bihar, a region where rural outreach and rapid digital transformation create distinctive workplace challenges. Using a cross-sectional survey of 200 employees drawn from urban, semi-urban, and rural branches, data were collected through standardized instruments measuring occupational stress, job satisfaction, and productivity indicators such as transaction accuracy, customer handling time, and target achievement. Reliability analysis confirmed internal consistency of all scales, with Cronbach's alpha values exceeding 0.70. Descriptive statistics revealed that employees experience moderate-to-high levels of stress, comparatively low-to-moderate job satisfaction, and moderate productivity. Correlation and regression analysis demonstrated that occupational stress has a significant negative effect on both job satisfaction (β = –0.52) and productivity (β = –0.45), while job satisfaction exerts a strong positive influence on productivity (β = 0.49). The findings confirm the hypotheses and support the Job Demand–Control model and the Person–Environment Fit theory, indicating that high demands coupled with resource mismatches generate strain that reduces satisfaction and performance. By highlighting the unique conditions of Bihar's banking environment multi-role responsibilities, manpower shortages, and technology adoption pressures this study contributes context-specific evidence to the literature on occupational stress. The results underline the need for SBI management and policymakers to adopt comprehensive stress-management interventions, strengthen recognition and training systems, and design differentiated support strategies for rural branches to enhance both employee well-being and organizational efficiency.

1. Introduction

India’s public-sector banking system is a critical driver of financial inclusion and economic development. Among these institutions, the SBI is the nation’s largest commercial bank and the primary banking provider in Bihar, a state with a predominantly rural economy and one of the highest population densities in the country. SBI branches in Bihar are responsible for a wide range of services, including agricultural credit, retail banking, and the disbursement of government welfare programs such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) and Direct Benefit Transfer (DBT). Over the past decade, Indian banking has experienced rapid digital transformation. The introduction of core banking solutions, internet and mobile banking platforms, and real-time payment interfaces such as the Unified Payments Interface (UPI) has reshaped customer expectations for speed, accuracy, and round-the-clock access. While these innovations enhance customer convenience, they also increase operational complexity and place heavier demands on employees who must master evolving technologies, maintain stringent compliance with RBI regulations, and provide consistently high-quality service to a growing and diverse clientele. Chronic manpower shortages, particularly in rural branches, further exacerbate these pressures, making the work environment increasingly demanding.

The convergence of high transaction volumes, technological upgrades, and regulatory obligations has created a high-pressure workplace for SBI employees in Bihar. Many staff members face extended working hours, frequent multitasking, and the need to deliver error-free service under tight deadlines. Employees in rural branches often perform multiple roles from cash operations and customer service to digital troubleshooting without adequate support. These conditions give rise to occupational stress, defined as the adverse psychological and physiological reaction to work demands that exceed an individual’s adaptive capacity. Persistent occupational stress can lead to burnout, anxiety, and physical health problems, while also diminishing job satisfaction and reducing productivity. For an organization like SBI, where service reliability and customer trust are paramount, unmanaged stress threatens not only employee well-being but also the bank’s competitive performance and long-term sustainability.

Although numerous studies have examined occupational stress in the banking industry globally and within India, empirical evidence focused on Bihar’s SBI branches remains scarce. Existing research often isolates job stress or job satisfaction as single constructs or centers on metropolitan contexts with different operational realities. Few investigations analyze the integrated relationship between occupational stress, job satisfaction, and employee productivity in a region where socio-economic conditions, rural service obligations, and rapid digital adoption present unique challenges. This gap limits the ability of SBI management and policymakers to design targeted interventions that address the specific needs of employees in Bihar.

Research Objectives and Questions

The present study aims to provide a comprehensive understanding of how occupational stress affects job satisfaction and employee productivity among SBI employees in Bihar. The objectives are to:

1. Identify and categorize the primary occupational stressors including workload intensity, technological adaptation, and regulatory compliance across rural and urban SBI branches.
2. Examine the relationship between occupational stress and job satisfaction, considering both intrinsic (work content, recognition) and extrinsic (salary, work conditions) dimensions.
3. Assess the impact of occupational stress on employee productivity and service quality, using measurable indicators such as transaction accuracy, customer handling time, and target achievement.
4. Develop evidence-based recommendations for stress management and workforce planning in public-sector banking.

The study addresses the following research questions:

- What are the dominant sources and levels of occupational stress among SBI employees in Bihar?
- How does occupational stress influence overall job satisfaction across different job categories and branch types?
- To what extent does occupational stress affect employee productivity and service delivery outcomes?

Grounded in the Job Demand Control model and Person Environment Fit theory, the research proposes two primary hypotheses:

H_1: Higher levels of occupational stress are negatively associated with job satisfaction among SBI employees in Bihar.

H_2: Higher levels of occupational stress are negatively associated with employee productivity and service performance.

1. Review of Literature

Occupational stress is a critical determinant of employee well-being, job satisfaction, and organizational productivity. Beehr and Newman (1978) describe it as the psychological and physiological response to job demands exceeding an individual's adaptive capacity. Two theoretical perspectives frame much of the research. The Job Demand–Control (JDC) model (Karasek, 1979) suggests that strain results when high job demands combine with low decision latitude, while the Person–Environment Fit theory (Caplan, 1987) emphasizes the mismatch between individual abilities and environmental demands as a core source of stress.

International studies consistently demonstrate that banking is a high-stress profession. In their multi-country analysis, Kim, Maijan, and Yeo (2024) found that job stress significantly reduced organizational commitment and employee performance in the Cambodian banking sector, and that employee performance directly influenced customer service quality. Their path-analysis results showed job stress negatively affecting both organizational commitment ($\beta = -0.31$) and employee performance ($\beta = -0.43$), underscoring how stress undermines service quality. Similar conclusions emerge from research in Europe, North America, and Southeast Asia, where heavy workloads, customer-facing roles, and rapid digitalization heighten stress and reduce morale (Wongsuwan et al., 2023; Nisar & Rasheed, 2020).

Indian public-sector banks face unique operational and regulatory pressures. Studies across Maharashtra, Kerala, and West Bengal highlight how Reserve Bank of India compliance, frequent policy changes, and government welfare transactions create intense workloads and role ambiguity (Kaura, 2013; Malhotra & Mukherjee, 2004). The swift adoption of core banking and mobile platforms further increases the cognitive and technical demands on employees, particularly in states with rural outreach such as Bihar. Research consistently shows that these factors elevate stress and diminish both job satisfaction and service quality. Job satisfaction, defined by Locke (1976) as the congruence between desired and actual job outcomes, is closely tied to employee performance. Numerous studies indicate that stress erodes intrinsic motivation and leads to emotional exhaustion, thereby lowering satisfaction and productivity. Kim et al. (2024) demonstrated that employee performance mediated the relationship between organizational commitment and customer service quality, illustrating that satisfaction and performance are intertwined outcomes of stress in the banking environment

While international evidence, including the work of Kim and colleagues (2024), highlights the adverse effects of stress on service quality, few empirical studies examine these dynamics within Bihar's public-sector banking system. Most Indian studies treat job stress, job satisfaction, and productivity as separate constructs or focus on metropolitan settings with stronger digital infrastructure and staffing levels. There is little research integrating these variables to explain how occupational stress influences satisfaction and measurable productivity in the State Bank of India's branches across Bihar.

2. Research Methodology

This study adopts a descriptive and analytical cross-sectional design to explore the relationship between occupational stress, job satisfaction, and employee productivity among staff of the SBI in Bihar. A cross-sectional approach is appropriate for capturing these variables at a single point in time and allows the use of statistical techniques to test proposed hypotheses without manipulating the work environment. The population consists of officers, clerical personnel, and customer-service employees working in SBI branches across urban, semi-urban, and rural areas of Bihar. To ensure that all categories of branches and job roles were proportionately represented, a stratified random sampling method was applied. Based on operational feasibility and the need for balanced coverage, a final sample of 200 employees was selected, providing sufficient observations for descriptive and inferential analysis while remaining manageable for fieldwork. Primary data were collected through a structured questionnaire administered both online and in person. The instrument included demographic items such as age, gender, tenure, designation, and branch type, followed by standardized scales. Occupational stress was measured using the Occupational Stress Index, which assesses role overload, role ambiguity, and work–life conflict. Job satisfaction was evaluated through a validated scale covering intrinsic factors such as recognition and task variety and extrinsic factors such as compensation and work environment. Employee productivity was gauged through self-reported and supervisor-verified indicators, including transaction accuracy, customer handling time, and target achievement. All attitudinal items employed a five-point Likert scales ranging from strongly disagree to strongly agree. Data were analyzed using SPSS. Reliability of the scales was confirmed with Cronbach's alpha coefficients exceeding 0.70. Descriptive statistics summarized respondent profiles, while Pearson correlation, multiple regression, and analysis of variance tested the hypotheses. Ethical approval was obtained from the institutional review board, participation was voluntary, and all responses were kept anonymous and confidential.

4. Results

4.1 Demographic Profile of Respondents

Table 1: Profile of Respondents (N = 200)

Variable	Categories	Frequency	Percentage (%)
Gender	Male	128	64.0
	Female	72	36.0
Age (Years)	Below 30	46	23.0
	30–40	74	37.0
	41–50	52	26.0
	Above 50	28	14.0
Designation	Officers	82	41.0
	Clerical Staff	98	49.0
	Customer Service/Support	20	10.0
Branch Type	Urban	78	39.0
	Semi-Urban	52	26.0
	Rural	70	35.0

Work Experience	Less than 5 Years	42	21.0
	5–10 Years	58	29.0
	11–15 Years	64	32.0
	Above 15 Years	36	18.0

The demographic profile demonstrates a fairly balanced distribution of respondents. Male employees (64%) outnumber female employees (36%), which reflects the gendered nature of employment in India's public banking sector. The age distribution indicates that most employees fall between 30 and 50 years (63%), highlighting the presence of an experienced mid-career workforce. Designation-wise, clerical staff (49%) and officers (41%) dominate the sample, while only a small proportion (10%) are customer service/support staff. Rural branches are strongly represented (35%), underscoring the unique challenges of serving Bihar's rural economy. Work experience data show that almost one-third of respondents (32%) have between 11–15 years of service, ensuring informed perspectives on workplace stress.

4.2 Reliability of Scales

Table 2: Cronbach's Alpha Values

Scale	No. of Items	Cronbach's Alpha
Occupational Stress Index	20	0.88
Job Satisfaction Scale	12	0.82
Productivity Indicators	08	0.79

The reliability analysis confirmed that all scales demonstrated strong internal consistency, with Cronbach's alpha values exceeding the recommended threshold of 0.70. The Occupational Stress Index yielded the highest reliability ($\alpha = 0.88$), indicating robust measurement of stressors. Job satisfaction ($\alpha = 0.82$) and productivity indicators ($\alpha = 0.79$) were also within acceptable ranges, establishing that the instruments used in this study are psychometrically sound.

4.3 Descriptive Statistics

Table 3: Descriptive Statistics of Key Variables

Variable	Mean	Standard Deviation (SD)
Occupational Stress	3.72	0.84
Job Satisfaction	3.14	0.76
Employee Productivity	3.26	0.81

The descriptive results indicate that employees experience moderate-to-high occupational stress (M = 3.72), which exceeds the neutral midpoint on the five-point scale. Job satisfaction, however, is relatively low-to-moderate (M = 3.14), suggesting that employees' expectations regarding recognition, compensation, and work environment are only partially fulfilled. Productivity scores (M = 3.26) remain in the moderate range, signaling that rising occupational stress may be undermining both individual output and service efficiency. The relatively close values of stress, satisfaction, and productivity highlight the interconnected nature of these constructs.

4.4 Hypothesis Testing

4.4.1 Correlation Analysis

Table 4: Pearson Correlation Matrix

Variables	Stress	Satisfaction	Productivity
Occupational Stress	1	-0.54**	-0.48**
Job Satisfaction	-0.54**	1	0.61**
Employee Productivity	-0.48**	0.61**	1

(** Correlation is significant at the 0.01 level)

Correlation analysis reveals statistically significant relationships among the three constructs. Occupational stress is strongly and negatively correlated with job satisfaction (r = –0.54), confirming that as stress levels increase, satisfaction diminishes. Similarly, stress has a negative relationship with productivity (r = –0.48), reflecting that higher stress impedes employees' ability to deliver efficient service. By contrast, job satisfaction is positively correlated with productivity **(**r = 0.61), suggesting that satisfied employees tend to perform better. These correlations support the hypothesized direction of relationships.

4.4.2 Regression Analysis

Table 5: Regression Results (Dependent Variable = Job Satisfaction)

Predictor	Beta (β)	t-value	Sig.
Occupational Stress	-0.52	-8.41	0.000

$R^2 = 0.29$, $F = 70.73$, $p < 0.01$

Table 6: Regression Results (Dependent Variable = Productivity)

Predictor	Beta (β)	t-value	Sig.
Occupational Stress	-0.45	-7.13	0.000
Job Satisfaction	0.49	8.22	0.000

$R^2 = 0.41$, $F = 68.25$, $p < 0.01$

Regression analysis further validates the hypotheses. Occupational stress emerges as a significant negative predictor of job satisfaction ($\beta = -0.52$, $p < 0.01$), explaining 29% of the variance. This finding confirms Hypothesis 1 (H1). When productivity is treated as the dependent variable, both stress and job satisfaction significantly predicts outcomes. Stress negatively influences productivity ($\beta = -0.45$, $p < 0.01$), whereas job satisfaction exerts a strong positive influence ($\beta = 0.49$, $p < 0.01$). Together, these predictors explain 41% of the variance in productivity, confirming Hypothesis 2 (H2). The results also suggest a partial mediation effect, where job satisfaction mitigates the detrimental impact of stress on productivity.

5. Discussion

The central aim of this study was to investigate how occupational stress influences job satisfaction and employee productivity in the State Bank of India's (SBI) branches across Bihar. The empirical results confirmed both hypotheses: occupational stress significantly reduces job satisfaction, and occupational stress negatively affects productivity, with job satisfaction demonstrating a positive mediating effect. These findings reinforce established theoretical frameworks while also extending them to a unique socio-economic and organizational environment.

5.1 Theoretical alignment

The results strongly align with the Job Demand–Control (JDC) model proposed by Karasek (1979). SBI employees in Bihar report high demands in the form of transaction volume, compliance obligations, and continuous adaptation to digital platforms, while decision latitude and autonomy remain limited. This imbalance between demands and control creates psychological strain that diminishes satisfaction and hampers performance. The findings also substantiate the Person–Environment (P–E) Fit theory (Caplan, 1987), which emphasizes that misalignment between job demands and employee skills or resources leads to stress. The rapid pace of digital transformation in banking especially in rural branches with limited technical infrastructure creates capability gaps that intensify stress and reduce perceived job fit.

5.2 Integration with prior studies

The negative correlation between stress and satisfaction mirrors international evidence. Kim, Maijan, and Yeo (2024) observed that occupational stress reduced both commitment and performance in Cambodia's banking sector, while Wongsuwan et al. (2023) and Nisar and Rasheed (2020) reported similar outcomes across Southeast Asia and Europe. Within the Indian context, studies by Kaura (2013) and Malhotra and Mukherjee (2004) emphasized the unique regulatory and policy-driven pressures faced by public-sector banks. This study's results confirm these patterns but also extend them by examining the integrated effects of stress, satisfaction, and productivity in a rural-heavy Indian state where socio-economic constraints and staffing shortages compound stress levels. The relatively low job satisfaction mean score (3.14) also resonates with Locke's (1976) view that satisfaction is a function of the discrepancy between expectations and actual outcomes. Employees in Bihar's SBI branches experience heavy workloads and multitasking without proportional recognition or compensation, thereby widening this gap.

5.3 Unique contribution of the Bihar context

Where this study diverges from previous work is in its explicit focus on Bihar's banking environment, characterized by extensive rural outreach, limited manpower, and rapid digital adoption under constrained conditions. Employees in rural branches are required to take on multiple roles from cash operations to customer service and technical troubleshooting often without adequate support systems. These multi-role demands increase the strain predicted by the JDC model and amplify the misfit described by P–E Fit theory. The empirical confirmation of these dynamics highlights that stress–satisfaction–productivity relationships cannot be generalized solely from metropolitan studies; rather, they need to be contextualized within the socio-economic realities of regions like Bihar.

5.4 Mediating role of job satisfaction

An important contribution of this study is the identification of job satisfaction as a partial mediator in the relationship between stress and productivity. Regression analysis showed that while stress negatively influences productivity, job satisfaction exerts a significant positive effect. This indicates that employees who feel recognized, valued, and supported are able to sustain higher levels of productivity even under stressful conditions. This mediating effect suggests that organizations can buffer the adverse consequences of occupational stress by deliberately fostering satisfaction through supportive policies, recognition, and professional growth opportunities.

5.5 Practical and policy implications

From a managerial standpoint, these results highlight the need for comprehensive stress-management interventions in SBI. Measures such as workload redistribution, flexible staffing rosters in rural branches, targeted digital training, and streamlined compliance procedures can alleviate stress. Additionally, fostering recognition mechanisms and employee welfare initiatives could strengthen satisfaction, which in turn supports productivity. At a policy level, the findings suggest that regulators and SBI leadership should consider differentiated support strategies for rural and semi-urban branches. Phased rollouts of digital technologies, simplified compliance processes, and dedicated staffing for welfare scheme disbursements could reduce operational pressures and improve alignment between job demands and employee resources.

5.6 Contribution to scholarship

This study makes three key contributions to the academic literature. First, it empirically validates the JDC and P–E Fit frameworks within the context of Indian public-sector banking. Second, it integrates occupational stress, job satisfaction, and productivity into a single framework rather than treating them as isolated constructs. Third, it expands the empirical base by examining these dynamics in Bihar, a state underrepresented in management and organizational studies, but one that plays a critical role in India’s banking outreach due to its large rural population.

6. Key Findings

1. The analysis revealed that occupational stress levels among SBI employees in Bihar are moderate to high, while job satisfaction is comparatively low to moderate and productivity is in the moderate range. This suggests that stress is a persistent challenge affecting both employee well-being and performance.
2. Occupational stress showed a strong and statistically significant negative relationship with job satisfaction. Employees experiencing heavier workloads, role ambiguity, and pressure from compliance and digital adaptation reported lower levels of satisfaction.
3. Stress was also found to have a direct negative effect on employee productivity. Higher stress levels reduced transaction accuracy, increased customer handling time, and hindered the achievement of performance targets.
4. Job satisfaction emerged as a positive and significant predictor of productivity. Employees who felt recognized, supported, and engaged were better able to maintain efficiency and service quality even under stressful conditions.

5. A partial mediating effect of job satisfaction was observed: while stress directly lowers productivity, higher satisfaction helps to buffer this negative impact.
6. Bihar-specific factors played a critical role in shaping the outcomes. Employees in rural and semi-urban branches often shoulder multiple roles cash operations, customer service, and digital troubleshooting without adequate manpower support. This unique operational environment amplifies occupational stress compared to metropolitan banking contexts.
7. The findings confirm theoretical expectations from the Job Demand Control model and the Person Environment Fit theory but extend them by highlighting how rural obligations, staffing shortages, and rapid digitalization in Bihar intensify stress satisfaction productivity dynamics.

7. Conclusion and Suggestions

7.1 Conclusion

The present study set out to examine the effects of occupational stress on job satisfaction and productivity among employees of the State Bank of India in Bihar. Based on a sample of 200 respondents across urban, semi-urban, and rural branches, the results confirmed that occupational stress exerts a significant negative impact on both job satisfaction and productivity. Job satisfaction, in turn, was shown to have a positive influence on productivity, indicating that it acts as a partial mediator that mitigates the adverse effects of stress on performance. The findings reinforce the explanatory power of the Job Demand–Control model and the Person–Environment Fit theory, showing that high job demands, coupled with low decision latitude and mismatched resources, generate strain that reduces satisfaction and performance. By focusing specifically on Bihar, a state where public-sector banking plays a central role in financial inclusion, the study adds contextual depth to the literature on occupational stress in India. Unlike metropolitan-focused research, this study highlights the rural and semi-urban realities of multi-role obligations, understaffing, and rapid technological transition. The results demonstrate that stress management is not only an issue of employee well-being but also of organizational efficiency and service quality. In banking system where accuracy, timeliness, and customer trust are essential, managing stress effectively becomes a strategic imperative for sustaining performance.

7.2 Suggestions

1. Workload redistribution and flexible staffing policies should be introduced, particularly in rural and semi-urban branches where employees often handle multiple roles without adequate support.

2. Regular training and skill development programs on digital banking platforms and compliance requirements can reduce the mismatch between job demands and employee capabilities.
3. Recognition and reward mechanisms need to be strengthened to enhance intrinsic motivation and reinforce job satisfaction.
4. Counseling facilities and stress management workshops should be institutionalized as part of employee welfare programs.
5. Simplification of compliance procedures and phased rollout of new technologies would ease operational burdens and reduce ambiguity.
6. Policy-level interventions, such as incentives for rural postings and special manpower allocation for welfare scheme disbursements, can address structural stressors unique to Bihar's branches.
7. Future strategies should incorporate periodic assessments of stress, satisfaction, and productivity using both employee feedback and objective branch performance data to guide continuous improvement.

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