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ORGANIZATIONAL STRESS MANAGEMENT IN THE DIGITAL WORK ENVIRONMENT: PSYCHOLOGICAL, ECONOMIC, AND STRATEGIC DIMENSIONS OF EMPLOYEE PERFORMANCE

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Abstract
This article examines the organizational mechanisms of stress management in modern institutions operating under conditions of digital transformation and increasing psychological pressure. The study analyzes the psychological, economic, and managerial dimensions of stress and evaluates its influence on employee productivity, organizational sustainability, labor efficiency, and decision-making processes. Particular attention is devoted to cognitive workload, digital stress, emotional exhaustion, operational efficiency, and organizational adaptation systems. The research applies analytical, comparative, statistical, and systemic approaches to investigate stress diagnostics, performance indicators, and economic losses associated with prolonged workplace stress. Research findings demonstrate that unmanaged stress significantly reduces labor productivity, increases organizational costs, weakens cognitive performance, and intensifies employee turnover. The article further explores the role of HR analytics, digital monitoring systems, and strategic organizational interventions in minimizing stress-related economic losses and improving institutional effectiveness.

Keywords: Organizational stress, stress management, digital stress, labor productivity, cognitive workload, burnout syndrome, HR analytics, workplace psychology, organizational efficiency, emotional intelligence.

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Introduction

The rapid transformation of the global economy, expansion of digital technologies, intensification of labor processes, and growing organizational competition have significantly increased psychological pressure within modern workplaces. Under these conditions, stress has become one of the central organizational and managerial challenges affecting employee well-being, operational efficiency, labor productivity, and institutional sustainability.

Initially interpreted as a biological adaptation mechanism, stress later evolved into a multidimensional psychological and organizational phenomenon. Hans Selye's General Adaptation Syndrome model, introduced in 1936, explained stress as a universal physiological response consisting of three interconnected stages:

- alarm;
- resistance;
- exhaustion.

Empirical observations indicate that during the first 24–72 hours, the organism demonstrates an immediate physiological response to stress factors. Within 7–14 days, adaptation mechanisms emerge, while stress continuing longer than 30 days often leads to exhaustion and a decline in cognitive performance by approximately 20–35%.

Modern organizations increasingly recognize that stress is not merely an individual psychological issue but also an important economic and strategic management problem. Excessive stress negatively influences:

- labor productivity;
- operational accuracy;
- decision-making speed;
- organizational communication;
- workforce stability;
- innovation capacity.

International research demonstrates that approximately 68–72% of employees experience stress caused by excessive workload, while 52–57% identify strict deadlines and time pressure as primary stress factors.

The emergence of digital economies has generated a new organizational phenomenon commonly described as digital stress. Continuous interaction with electronic communication systems, information overload, permanent online connectivity, and

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blurred boundaries between professional and personal life substantially intensify psychological tension. Research findings indicate that employees working 8–10 hours daily in digital environments demonstrate stress levels reaching nearly 74%.

Stress also significantly influences organizational economics. Empirical data reveal that highly stressed employees demonstrate:

- 23–31% lower productivity;
- 18–25% slower decision-making;
- 27–40% higher error rates.

Additionally, organizations characterized by chronic workplace stress experience:

- increased employee turnover;
- higher absenteeism;
- elevated healthcare costs;
- reduced institutional stability;
- increased burnout syndrome prevalence.

Burnout syndrome resulting from long-term stress affects approximately 42–58% of employees in high-pressure environments.

The relevance of this study is determined by the increasing importance of organizational stress management within digitally transformed workplaces. Modern institutions require integrated systems capable of diagnosing, monitoring, and minimizing stress-related organizational risks.

The purpose of this research is to analyze the psychological, economic, and organizational dimensions of stress management and evaluate the effectiveness of modern stress-diagnostic and prevention mechanisms within contemporary organizations.

LITERATURE REVIEW

Stress research occupies an important position within psychology, organizational behavior, labor economics, and management studies.

Hans Selye's physiological theory established the foundation for scientific stress research. Selye defined stress as a universal biological response to environmental pressures and emphasized the long-term destructive effects of chronic stress exposure.

Richard Lazarus later expanded stress theory through his cognitive appraisal approach. According to Lazarus, stress is determined not only by external stimuli but

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also by how individuals cognitively evaluate these stimuli. The theory distinguishes between:

- primary appraisal;
- secondary appraisal.

Research based on Lazarus's theory demonstrates that individuals possessing stronger cognitive adaptability and emotional regulation experience significantly lower negative stress effects.

Modern organizational psychology increasingly examines emotional intelligence as a major stress-management factor. Studies indicate that employees with high emotional intelligence demonstrate stress resistance levels approximately 25–30% higher than individuals with weaker emotional regulation capacities.

Contemporary literature also focuses on digital stress and information overload. Scholars emphasize that permanent digital connectivity, multitasking, and communication saturation reduce attention stability, cognitive efficiency, and psychological resilience.

Burnout syndrome research developed by Christina Maslach further contributed to understanding emotional exhaustion within organizations. Burnout is commonly characterized through:

- emotional exhaustion;
- depersonalization;
- reduced professional accomplishment.

Modern management theories increasingly integrate psychological health into strategic organizational planning. Human-centered management systems emphasize employee well-being, organizational communication quality, workplace flexibility, and mental-health-oriented leadership.

Another important direction within the literature concerns stress diagnostics and measurement methodologies. The integration of HR analytics and digital monitoring technologies further transformed stress management systems. Modern organizations increasingly utilize. Overall, the literature confirms that stress management has become a strategic organizational issue strongly connected with productivity, organizational sustainability, and economic performance.

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METHODOLOGY

The research employs qualitative and quantitative methodological approaches integrating:

- systemic analysis;
- comparative analysis;
- statistical evaluation;
- organizational-economic interpretation;
- psychological diagnostics.

RESULTS

The findings demonstrate that organizational stress significantly reduces employee productivity, operational efficiency, and institutional sustainability.

One of the most important results concerns the relationship between stress and cognitive performance. Research findings indicate that attention stability declines substantially under stressful conditions. While employees normally maintain stable attention for approximately 90 minutes, stress reduces this duration to nearly 54 minutes.

Cognitive workload indicators also demonstrate significant deterioration. Under normal conditions, employees effectively process approximately 600 information units daily; under stress conditions, this figure declines to approximately 430 units.

Operational performance indicators confirm similar patterns. Employees operating under normal conditions complete approximately 12 tasks daily, while stressed employees complete only 8 tasks. Simultaneously, operational errors increase from 2 errors per day to 6 errors per day.

The study also reveals substantial productivity losses associated with stress-related time inefficiencies. Out of 480 available working minutes, approximately 300 minutes are effectively utilized under normal conditions. Under stress conditions, effective work time decreases to nearly 210 minutes, resulting in the loss of approximately 90 productive minutes daily.

Approximately 55–60% of employees identified the disappearance of boundaries between work and personal life as a major stress factor.

The research additionally demonstrates that activity-switching frequency substantially contributes to hidden stress forms. Employees changed operational activities approximately 31 times daily, with each transition requiring nearly 6

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minutes of cognitive readjustment. As a result, approximately 186 minutes daily were consumed solely by cognitive switching processes.

Stress-index calculations further confirmed the effectiveness of integrated diagnostic models. Using the formula:

SI=\frac{K+T+X}{V}

where:

- K = cognitive workload,
- T = time loss,
- X = error quantity,
- V = completed tasks,

the calculated stress index reached 120.75 under stressful conditions, whereas normal organizational conditions typically produce indicators between 80–90.

The findings additionally reveal strong relationships between stress and burnout syndrome prevalence. Long-term organizational stress significantly increases emotional exhaustion, absenteeism, and employee turnover.

DISCUSSION

The findings confirm that stress management should be considered a strategic organizational priority rather than solely a psychological support mechanism.

One of the central conclusions of the study is that stress directly affects organizational productivity and economic efficiency. Chronic stress weakens cognitive stability, decreases operational performance, slows managerial decision-making, and increases error frequency.

The research also highlights the growing significance of digital stress within modern organizations. The expansion of remote work systems, online communication platforms, and information-intensive labor environments substantially increases psychological pressure on employees. Continuous connectivity creates cognitive overload and reduces recovery opportunities.

The study demonstrates that these losses accumulate into substantial organizational expenses over time. The findings additionally confirm the importance of psychological adaptability and emotional intelligence. Employees possessing stronger emotional regulation capacities demonstrate significantly greater resilience under stressful conditions.

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Modern stress management therefore requires integrated organizational strategies combining:

- psychological support systems;
- workload optimization;
- communication improvement;
- digital workload regulation;
- HR analytics;
- organizational flexibility.

The study further demonstrates the strategic role of stress diagnostics. Objective stress indicators allow organizations to identify hidden productivity losses and develop evidence-based intervention systems.

Another significant issue concerns activity fragmentation and multitasking. Frequent task switching substantially increases cognitive adaptation costs and reduces concentration quality. Consequently, organizations should develop:

- structured workflow systems;
- attention management practices;
- focused-task environments;
- digital communication limitations.

The integration of HR analytics and digital monitoring technologies represents another important transformation within stress management systems. Predictive analytics and behavioral indicators allow organizations to identify high-risk groups and prevent burnout development before severe organizational damage occurs.

The findings also emphasize that moderate stress may function positively under certain conditions. Eustress can temporarily improve motivation and productivity by approximately 10–12%. However, once stress exceeds critical thresholds, negative physiological and cognitive effects dominate organizational performance.

CONCLUSION

This study concludes that organizational stress management represents one of the most important strategic challenges within contemporary digital workplaces.

Research findings demonstrate that prolonged workplace stress significantly reduces:

- labor productivity;
- cognitive efficiency;
- decision-making quality;

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- organizational sustainability.

The analysis confirms that stress generates substantial economic losses through operational inefficiencies, productivity decline, increased errors, absenteeism, and employee turnover.

The research further demonstrates the growing significance of digital stress resulting from:

- information overload;
- continuous connectivity;
- multitasking;
- blurred work-life boundaries.

Modern organizations therefore require integrated stress-management systems combining psychological diagnostics, operational analytics, HR technologies, and organizational interventions.

The study additionally confirms that HR analytics, digital monitoring systems, and predictive management technologies substantially improve organizational capacity to diagnose and reduce stress-related risks.

In conclusion, organizational stress management should be understood as a multidimensional strategic process integrating psychology, economics, technology, and human resource management within a unified framework of sustainable organizational development.

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