Determinants of Quality of Work Life for Women Employees in the Foundry Industry: Effects on Job Stress, Career Satisfaction and Work-Family Balance

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Abstract
The foundry industry is characterized by physically demanding working conditions, high production pressure, and complex organizational structures. This situation makes employees' quality of work life a critical issue for sustainable industrial performance. This study was conducted to examine the relationships between dimensions of work-life quality and key psychosocial outcomes (work-related stress, career satisfaction, and work-family balance) among employees in the foundry sector.

Keywords: Quality of Work Life, Stress in the Workplace, Job Satisfaction, Work-Life Balance

Introduction

Work-life quality has been identified as a critical factor influencing women employees' ability to maintain a balance between their professional and personal lives (Haar et al., 2014). Existing studies in the literature have consistently demonstrated that high levels of work-life quality are associated with increased job satisfaction, organizational commitment, and overall performance (Danna & Griffin, 1999). The existing literature has also been evaluated in terms of the stress factor in work life. Accordingly, it has been found that there is a widespread belief that stress in work life is a factor affecting both individual and organizational outcomes. It has been noted that stress in the workplace disrupts work-life balance by creating role conflicts between professional and personal responsibilities (Greenhaus & Beutell, 1985), and that prolonged exposure to stress reduces job satisfaction and work performance, contributing to burnout and the intention to leave the job (Allen et al., 2000).

A review of the existing literature reveals that comprehensive studies on this topic have generally been conducted in the service and healthcare sectors. The foundry industry involves stress factors such as high physical risk, time pressure, and operational complexity. All these factors have the potential to increase work-related stress, negatively impact work-life balance, and affect an individual's overall well-being. For this reason, it is believed that experimental studies specifically focused on the foundry sector are important for the sector.

Experimental procedure

Based on this, this study examines the relationships between the fundamental dimensions of work life quality in the foundry sector—career satisfaction, general well-being, job control, and working conditions—and their effects on work-related stress and work-life balance. As part of the study, a survey (screening) was conducted with 391 women participants working in casting and production-oriented industrial environments. The data collected during the research were analyzed using the SPSS software package to perform exploratory factor analysis, reliability analysis, correlation analysis, and simple and multiple regression analyses.

Result and discussion

The findings indicate that job satisfaction and overall well-being are among the strongest determinants of work-life quality. Women employees who perceive higher levels of career development opportunities and psychological well-being tend to report higher overall quality of work life. These findings are consistent with previous research emphasizing the importance of internal and psychological factors in shaping employees' attitudes and behaviors (Danna & Griffin, 1999; Haar et al., 2014).The findings of this study indicate that favorable working conditions—including safe and supportive physical environments—contribute positively to both the quality of work life and work-life balance. Additionally, having control over one's work emerges as a significant factor in reducing work-related stress. It was also found that employees with greater opportunities for participation in decision-making processes experience lower stress levels. This supports the assumptions of Karasek's (1979) Job Demand-Control Model. The findings indicate that work-related stress has a significant negative impact on work-family balance. It has been noted that high stress levels among women employees increase the likelihood of role conflict and make it difficult for employees to maintain a balance between their professional and personal lives. This finding aligns with the role conflict theory proposed by Greenhaus

and Beutell (1985) and is supported by the empirical evidence presented by Allen et al. (2000).
From a theoretical perspective, this study contributes to the literature by integrating various dimensions of work-life quality into a comprehensive model and elucidating their relationships within the context of heavy industry. From a practical perspective, the findings indicate that foundry managers should adopt people-centered management practices aimed at improving working conditions, enhancing employee well-being, and strengthening employee control. These findings are particularly significant in labor-intensive sectors such as foundries, where women employee performance directly impacts production efficiency. It is believed that implementing policies supporting career development, psychological well-being, and participatory decision-making processes could lead to reduced stress levels among women employees, improved work-life balance, and increased overall productivity.

Conclusion

The foundry industry constitutes one of the most critical components of the manufacturing sector, characterized by labor-intensive processes, high temperatures, shift work systems, and physically demanding work environments. These characteristics make women employee well-being and quality of work life a strategic priority—not only in terms of individual outcomes but also in terms of organizational sustainability and productivity. From this perspective, it is believed that relying solely on the development of technological capabilities is insufficient; human-centered approaches are necessary to ensure long-term productivity and competitiveness (Ganster & Rosen, 2013; Karasek & Theorell, 1990).

This study highlights the critical role of quality of work life in shaping the well-being of women employees and organizational sustainability in the foundry industry. By revealing the interrelationships among dimensions of quality of work life, stress, and work-family balance, the study provides a comprehensive framework for understanding and improving human resources practices in industrial settings. It is anticipated that future research could expand the scope of this study by incorporating additional variables such as leadership styles, organizational support, and the safety environment.

References

[1] Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of occupational health psychology*, *5*(2), 278.

[2] Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of management*, *25*(3), 357-384.

[3] Ganster, D. C., ve Rosen, C. C. (2013). Work stress and employee health. *Journal of Management, 39*(5), 1085–1122.

[4] Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of management review*, *10*(1), 76-88.

[5] Haar, J. ve Spell, C.S. (2003). where is the justice? examining work–family backlash in New Zealand: the potential for employee resentment. New Zealand Journal of Industrial Relations, 28(1), 59–75.

[6] Karasek, R.A. (1979), “Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign”, Administrative Science Quarterly, 24, ss.285- 308.

[7]Karasek, R., & Theorell, T. (1990). Healthy work. New York: Basic Books. *Also Schnall PL, Landsbergis PA. Job strain and cardio-vascular disease. Annu Rev Public Health*, *1994*(15), 381-411.