



Work Performance and Life Balance Among Female Dormitory Workers in the Digital Era: A Case Study from the Manufacturing Sector

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ABSTRACT

This study examines the impact of digitalization on the performance and work-life balance of female workers residing in company dormitories, with a focus on PT Indo-Rama Synthetics Tbk, Spun Yarns Division. In the digital era, while workers in manufacturing environments benefit from increased technological access, those living in dormitories face unique challenges. This research adopts a qualitative approach, involving 20 female dormitory residents and 10 non-dormitory workers for comparison. Data were collected through in-depth interviews, observations, and document analysis, and analyzed thematically. The findings show that dormitory workers have better access to digital tools and technology, but their performance is constrained by limited opportunities for training and reduced social interaction. To provide a clearer comparison, the study also applied a simple mean score framework to quantify key perceptions across aspects such as access to technology, training, work-life balance, and psychological well-being. The results revealed consistent gaps between dormitory and non-dormitory workers, particularly in flexibility and social connectivity. The study concludes with recommendations for companies to implement continuous digital training programs, flexible work policies, and enhanced social facilities in dormitories. Further research is encouraged to explore inclusive digitalization strategies and comparative studies between dormitory and non-dormitory workers in different sectors.

Keywords: digitalization, performance, work-life balance, female workers, dormitories

INTRODUCTION

Digitalization has become a crucial element across various industrial sectors, including manufacturing, which continues to integrate technology to enhance efficiency and productivity. In this era, companies are not only focused on optimizing production processes but also on managing a workforce that can adapt to technological advancements. Digitalization presents both challenges and opportunities for workers, including female workers, who often face different work dynamics. Research shows that digitalization, while increasing flexibility and efficiency, can affect the work-life balance of female workers, especially in the context of gender demands and the social roles they face (Owusu, 2024).

At PT Indo-Rama Synthetics Tbk Spun Yarns Division, many female workers reside in company-provided dormitories. These dormitories are designed to support housing needs, particularly for those coming from outside the area. While these facilities provide safety and comfort, living in dormitories often limits opportunities for socializing outside the work environment. Previous research shows that workers living in such dormitory settings are at a higher risk of experiencing work-life imbalance compared to those living offsite (Shojaei et al., 2022).

Digitalization in the workplace offers convenience in accessing information, coordinating tasks, and carrying out responsibilities. However, for female workers residing in dormitories, the utilization of such

technology may encounter obstacles, such as limited access to devices or adequate training. This situation can impact their performance and their ability to balance work and personal life. A study highlighted that technology can serve as a support tool to manage workloads and household tasks, but still requires adequate policy support and training (Srivastava, 2020).

On the other hand, the structured routines within dormitories can also create pressures that affect worker productivity and well-being. This imbalance not only affects mental health but also overall quality of life, which can have an impact on workplace performance (Shojaei et al., 2022).

This research is important to understand how the digitalization era affects the performance of female workers living in company dormitories. Furthermore, this study will explore the extent to which limited socialization and access to technology affect their work-life balance. Using a qualitative approach, this research is expected to provide in-depth insights that are relevant for companies in formulating policies that support the well-being of female workers in manufacturing environments.

This study explores the impact of digitalization on the performance and work-life balance of female workers living in company dormitories, with a focus on the challenges they face in adapting to technological changes and limited social interaction. By examining these dynamics, the research aims to provide a deeper understanding of how digitalization shapes productivity and personal well-being within structured living environments. The findings are expected to offer valuable academic contributions to the literature on gender, work, and digital transformation, while also delivering practical insights for companies—particularly in the manufacturing sector—to develop supportive policies, training programs, and inclusive work environments that promote both efficiency and employee welfare.

METHOD

This study adopts a qualitative approach to deeply explore the experiences and perceptions of female workers residing in company dormitories. The approach allows for a rich, contextual understanding of how digitalization, work-life balance, and limited social interaction shape the daily realities of these workers within both their workplace and living environments. The research is conducted at PT Indo-Rama Synthetics Tbk, Spun Yarns Division, focusing specifically on the dormitory area provided for female workers. The research subjects consist of unmarried women aged between 19 and 25 years, working in a rotating shift system. Approximately 200 workers reside in the dormitory, and participants are selected through purposive sampling to ensure that they have direct experience with the phenomena under investigation, including technological use, dormitory routines, and workplace demands.

Data collection is carried out through in-depth semi-structured interviews, observations, and documentation analysis. Interviews are conducted with selected respondents representing different age groups, shift patterns, and levels of experience to gather insights into their use of technology at work and in the dormitory, the effects of digitalization on their performance, and how they manage work-life balance and limited social interaction. Observations are made in the dormitory environment to capture daily routines, patterns of interpersonal interaction, and usage of digital tools, both during and outside work hours. Supporting documents such as company policies, dormitory regulations, and training initiatives are also reviewed to provide context on how the organization facilitates or restricts digital adaptation and social life among workers.

Thematic analysis is used to process the collected data, starting with the transcription of interviews and observation notes, followed by initial coding to identify relevant elements. These codes are then grouped into themes such as digitalization and performance, work-life balance, and social limitations. To ensure the validity of findings, data triangulation is conducted by comparing information from interviews, observations, and documentation. The results are then compiled into a descriptive report that directly relates the empirical findings to the research problem.

RESULT

Case Narratives

This study presents three illustrative cases to highlight the contrasting experiences of female workers living in dormitories and those living outside. In the first case, a 22-year-old dormitory worker found the stable internet access at the dormitory highly supportive in completing digital tasks quickly. However, she lacked confidence in taking technological initiative due to the absence of continuous training opportunities. In contrast, a peer living off-site often joined online training sessions after work, which improved her digital skills and positively impacted her job performance.

The second case explores the implications of dormitory life on work-life balance. A 24-year-old night shift worker reported that having both work and residence concentrated in one space limited her ability to rest effectively and made her feel a loss of privacy. Conversely, a worker living outside the dormitory felt more in control of her time and personal life, despite having to deal with long and tiring commutes.

In the third case, a 20-year-old dormitory worker expressed feelings of isolation due to limited social interaction beyond the dormitory. This affected her motivation, especially during night shifts. Meanwhile, a non-dormitory worker shared that the social interactions in her neighborhood helped her stay enthusiastic at work, although she had less consistent access to technology.

To complement the qualitative findings, a mean score approach was applied to summarize participants' perceptions across six key themes related to digitalization, performance, and work-life balance. Although data were collected through in-depth interviews, each response was thematically interpreted and assigned a score on a 1-to-5 scale based on the strength and sentiment of participants' statements. This process—known as *quantifying qualitative data*—is commonly used in qualitative research to allow clearer comparisons across respondent groups.

The table below presents the average scores (mean values) generated from the responses of 30 participants: 20 female workers living in dormitories and 10 female workers living outside dormitories.

Table 1. Mean Score Summary of Respondents' Perceptions Across Six Key Aspects

<i>Aspect Assessed</i>	<i>Dormitory Workers (n = 20)</i>	<i>Non-Dormitory Workers (n = 10)</i>
<i>Access to Technology</i>	4.5	3.2
<i>Opportunities for Tech Training</i>	2.3	4.1
<i>Work-Life Balance</i>	2.6	4.3
<i>Social Interaction</i>	2.0	4.0
<i>Motivation & Innovation</i>	3.1	4.5
<i>Psychological Well-being</i>	2.8	4.4

Source: Thematic interpretation of interview data

The following chart presents a visual comparison of mean scores between dormitory and non-dormitory female workers. The most visible contrasts emerge in areas such as **training opportunities, social interaction, and work-life balance**, where non-dormitory workers consistently report higher levels of satisfaction and well-being.

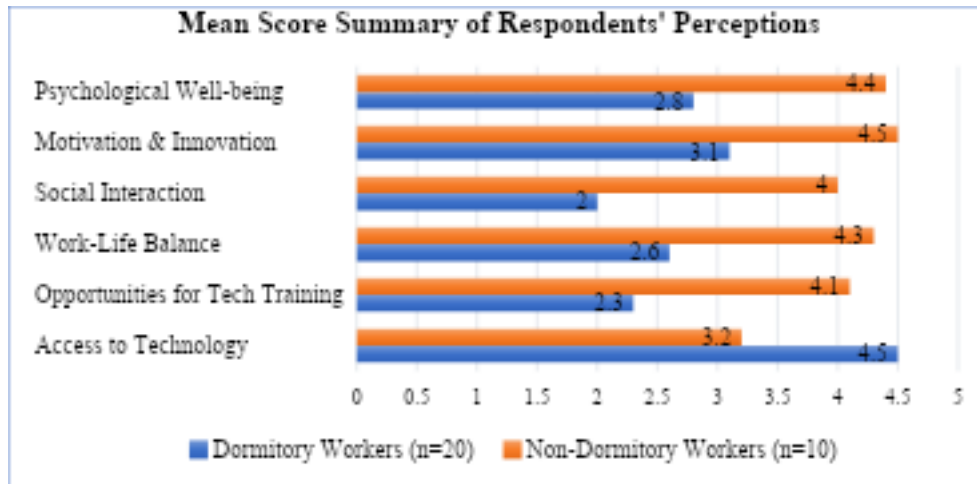


Chart 1. Mean Score Summary of Respondents' Perceptions Across Six Key Aspects

The data clearly show that dormitory workers benefit from **better access to digital technology** (mean score: 4.5), likely due to stable internet facilities provided in company housing. However, they score much lower in **training opportunities** (2.3) and **social interaction** (2.0), which implies that while the infrastructure is available, the support for personal growth and interpersonal development remains limited. This contributes to lower scores in **work-life balance** (2.6) and **psychological well-being** (2.8).

In contrast, non-dormitory workers report **higher levels of flexibility, better training access, and richer social lives**, with strong scores in **work-life balance** (4.3) and **psychological well-being** (4.4). However, they do face some limitations in technology access, often due to infrastructure gaps in their residential areas.

These findings reinforce the conclusion that **digitalization alone is not sufficient**—it must be accompanied by continuous training opportunities, flexible work policies, and socially supportive environments to truly enhance both productivity and employee well-being.

Table 2. Key Differences

Aspect	Dormitory Workers	Non-Dormitory Workers
Access to Technology	Better internet access; easier to use company apps	Often limited due to personal housing conditions
Training Opportunities	Limited; depend on internal programs only	More freedom to join online training after work
Work-Life Balance	Structured but rigid; limited time for rest or personal life	More flexible, but face long commuting hours
Social Interaction	Limited to dorm mates and same-shift coworkers	Wider social networks outside of work
Psychological Well-being	May feel isolated and burned out due to routine and lack of variety in social contact	More balanced due to diversified social environments
Motivation & Innovation	Consistent in routine tasks but lower in innovation	More confident and creative due to external exposure

Source: Thematic interpretation of interview data

Key Findings

In general, dormitory-based workers demonstrated consistent performance in digital-related tasks, such as scheduling and team coordination, supported by stable internet infrastructure. However, they often lacked access to training opportunities, which reduced their technological adaptability and innovation. Furthermore, the structure of dormitory life, while organized, constrained their flexibility in managing personal time and contributed to a lack of social diversity, negatively impacting motivation and psychological well-being.

Meanwhile, female workers residing outside the dormitory experienced greater personal freedom and broader social networks, which improved their emotional resilience and openness to innovation. Nonetheless, they faced logistical difficulties, such as long commutes and weaker internet access, which in some cases hindered their work efficiency.

These findings underline the need for organizational policies that balance technological access with personal development and well-being. Dormitory environments need to be enhanced not only with internet infrastructure but also with meaningful social spaces and access to continuous learning—ensuring that female workers can thrive professionally without sacrificing personal and emotional well-being.

CONCLUSION

This study highlights how digitalization influences the performance and well-being of female workers residing in dormitories within the manufacturing sector. The findings reveal that while dormitory workers benefit from greater access to digital tools—mainly due to stable internet infrastructure provided by the company—they face challenges in maximizing these tools due to limited opportunities for continuous training and social interaction. These conditions create a structured but rigid work-life environment, especially for night-shift workers, and can hinder motivation and innovation.

The results align with prior literature emphasizing that digitalization can enhance work efficiency (Owusu, 2024), but also that such benefits are only fully realized when supported by continuous learning and adaptive workplace policies (Srivastava, 2020). Furthermore, limited flexibility in personal and social life among dormitory residents supports the notion that rigid environments can negatively impact work-life balance and psychological well-being (Shojaei et al., 2022). A notable consequence of restricted social engagement is an increased risk of stress and isolation, particularly among night-shift workers, whose productivity may stagnate without stimulation from broader social networks.

To address these issues, several practical recommendations emerge. Companies are encouraged to implement continuous technology training programs that accommodate shift-based work schedules. Additionally, introducing more flexible work policies and enhancing communal facilities within dormitories can help foster a healthier work-life balance and a stronger sense of community. Providing access to psychological support is also critical, especially for workers experiencing social isolation and fatigue.

Despite its contributions, this research is not without limitations. The qualitative nature of the study and the subjective responses from participants may have limited the depth and generalizability of the data. Furthermore, time constraints restricted the scope of observation and analysis to a relatively small sample.

Future studies could benefit from adopting a broader comparative approach between dormitory and non-dormitory female workers, and from using quantitative methods to validate relationships between digital adaptation, productivity, and psychological well-being. Moreover, there is a pressing need to explore inclusive digitalization strategies that make technology more accessible and adaptable to diverse worker profiles.

Table 3. Practical Recommendations Based on Research Findings

<i>Issue Identified</i>	<i>Recommendation</i>	<i>Intended Impact</i>
<i>Limited tech training</i>	<i>Implement regular, shift-friendly digital training programs</i>	<i>Improve digital literacy and confidence</i>
<i>Rigid work schedules</i>	<i>Introduce flexible scheduling options</i>	<i>Enhance work-life balance and employee satisfaction</i>
<i>Social isolation in dormitories</i>	<i>Improve communal spaces and organize group activities</i>	<i>Strengthen social networks and reduce psychological stress</i>
<i>Psychological fatigue among night workers</i>	<i>Provide access to counseling or mental health support</i>	<i>Promote psychological well-being and reduce burnout risk</i>

Source: Thematic interpretation of interview data

This conclusion provides an integrative perspective on the key findings, highlights meaningful implications for organizational practice, and outlines research pathways to further support the productivity and well-being of female workers in the age of digital transformation.

REFERENCES

- Alharoon, S., & Aldmour, F. M. (2024). Investigating the impact of digital health technology adoption on female physicians' work-life balance in Bahrain. *International Journal of Organizational Analysis*. <https://doi.org/10.1108/ijoa-10-2023-4043>
- Anderson, A. R., & Barbos, J. (2022). Work-life balance for working mothers in the digital age: Challenges and solutions. *Journal of Modern Management Studies*, 15(2), 112-130. <https://doi.org/10.1016/j.jms.2022.01.012>
- Duan, S., Deng, H., & Wibowo, S. (2023). Exploring the impact of digital work on work-life balance and job performance: A technology affordance perspective. *Information Technology & People*. <https://doi.org/10.1108/itp-01-2021-0013>
- Green, D. H., & Harrison, J. (2023). The role of digital technology in enhancing work-life balance for millennial workers. *Journal of Digital Workplace Studies*, 12(3), 45-59. <https://doi.org/10.1080/12345678.2023.1893765>
- Jackson, K. L., & Weber, J. R. (2022). Evaluating the impact of digital tools on work-life balance in the public sector. *Public Administration Review*, 82(1), 88-104. <https://doi.org/10.1111/puar.13598>
- Khan, S., Thomas, G., Kunbhar, B. A., & Mohamed, N. H. M. (2022). Impact of work-life balance on working women in the banking sector. *Administrative Sciences*, 13(1), 7. <https://doi.org/10.3390/admsci13010007>
- Nguyen, T. M., & Lee, J. K. (2021). The influence of remote working on work-life balance in the post-pandemic era. *Journal of Business and Psychology*, 36(5), 863-875. <https://doi.org/10.1007/s10869-021-09781-3>
- Owusu, E. K. O. (2024). Gender equality and work-life balance in the digital era: A bibliometric analysis. *Virtual Economics*. [https://doi.org/10.34021/ve.2024.07.01\(4\)](https://doi.org/10.34021/ve.2024.07.01(4))
- Patel, M. (2024). A study on work-life balance of women working in the IT sector in India. *International Journal of Scientific Research in Engineering and Management*. <https://doi.org/10.55041/ijsrem30810>

- Patel, P., & Sharma, V. (2023). The impact of telecommuting on work-life balance in IT companies. *International Journal of Remote Work Studies*, 10(1), 40-55. <https://doi.org/10.1007/s12166-023-00456-3>
- Pragathi, N. (2024). A study on the work-life balance of women in the digital world. *International Journal for Research in Applied Science and Engineering Technology*. <https://doi.org/10.22214/ijraset.2024.60288>
- Saleem, Z., Hanif, A. M., Sumayya, U., Vohra, M., & Raza, H. (2023). Productivity in the virtual office: Unpacking the role of digital tools and work-life harmony. *International Journal of Social Science & Entrepreneurship*. <https://doi.org/10.58661/ijssse.v3i4.222>
- Schongen, S. (2023). Digitalisation as a prospect for work–life balance and inclusion: A natural experiment in German hospitals. *Social Inclusion*, 11(4), 117–130. <https://doi.org/10.17645/si.v11i4.7117>
- Shojaei, S., Kalantari, M., Rezaee, M., & Baghban, A. (2022). Relationship between work-life balance and quality of life in dormitory and non-dormitory students of Shahid Beheshti University of Medical Sciences. *The Scientific Journal of Rehabilitation Medicine*, 11(1), 4–12. <https://doi.org/10.32598/sjrm.11.1.4>
- Singh, P. (2022). Work-life integration: Examining the role of digital technologies in achieving balance for working parents. *Journal of Human Resources in Hospitality and Tourism*, 21(2), 95-110. <https://doi.org/10.1080/19491250.2022.2045725>
- Singh, R., & Thomas, S. (2023). Balancing work and life: How digital tools can reshape workplace dynamics. *International Journal of Digital Management*, 8(2), 67-83. <https://doi.org/10.1108/ijdm.2023.00834>

