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## Driving Workforce Productivity of Banking Employee : The Moderating Role of Motivation in the Work Environment

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Putu Putri Indah Sriani <sup>1</sup>, Komang Krisna Heryanda <sup>2</sup>,  
Putu Putri Indah Sriani <sup>3</sup>

### *Abstract:*

*This study aims to examine the influence of the work environment on employee productivity, with work motivation acting as a moderating variable at BPD Bali Bank. A quantitative approach was employed using data collected from 63 employees through a Likert-scale questionnaire. The analysis was conducted using Moderated Regression Analysis (MRA). The findings indicate that a supportive work environment positively affects employee productivity, and that work motivation strengthens this relationship. These results highlight the importance of integrating motivational strategies—such as training, reward systems, and career development programs—with efforts to improve the work environment. Enhancing both factors simultaneously can contribute to higher levels of employee productivity and overall organizational performance.*

**Keywords:** work environment, work motivation, productivity, moderation, MRA

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## 1. Introduction

Employee productivity is a critical determinant of organizational competitiveness, particularly in the banking sector where service quality and operational efficiency directly influence customer trust and regional economic growth. Regional Development Banks (BPDs), such as Bank BPD Bali, play a vital role in supporting local financial inclusion and public sector financing. Maintaining high employee productivity is therefore essential for sustaining performance and ensuring service excellence. Prior studies have emphasized that a conducive work environment and motivated employees are key drivers of productivity and job satisfaction (Chen, Tsai, & Chen, 2024; Rasool et al., 2025; Zhenjing, Ahmed, & Ahmad, 2022).

In the Indonesian context, employee performance in the banking industry remains an important issue due to evolving service demands, digitalization, and increasing competition from both private and state-owned banks. According to Hasan (2023), organizational culture and engagement significantly shape performance outcomes in

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<sup>1</sup> Universitas Pendidikan Ganesha, Indonesia. indahsriani04@gmail.com

<sup>2</sup> Universitas Pendidikan Ganesha, Indonesia.

<sup>3</sup> Universitas Pendidikan Ganesha, Indonesia.

Indonesian banking institutions. Similarly, Akbar, Sumekar, and Indaryani (2023) found that leadership and motivation directly enhance employee performance in Islamic banking. These findings imply that human resource factors, particularly motivation and workplace conditions, remain central to organizational success in financial institutions like Bank BPD Bali.

The work environment, encompassing physical, psychological, and social dimensions, is increasingly recognized as a foundation for effective employee performance (Gu et al., 2022; Oyedele, Ko, & Lee, 2025). A supportive and safe workplace not only increases job satisfaction but also encourages commitment and retention (Bloom, Han, & Liang, 2024). Moreover, the quality of workplace relationships and organizational support has been shown to foster engagement and performance improvement (Rasool et al., 2025). Within the banking context, where tasks are both cognitively and emotionally demanding, an optimal work environment is particularly crucial to sustain consistent productivity levels (Kawiana et al., 2023).

At the same time, work motivation has been established as a major determinant of employee performance across industries. Motivated employees tend to display stronger initiative, adaptability, and persistence in achieving organizational goals (Wang, Feng, & Hu, 2024; Wang, Luan, & Ma, 2024). Motivation is not only influenced by intrinsic rewards but also by perceived fairness, recognition, and opportunities for personal development (Chen, Zhang, & Kadera, 2023). Studies by Vo, Tuliao, and Chen (2022) and Nusraningrum et al. (2024) further highlighted that motivation mediates the link between environmental conditions and performance outcomes. Hence, integrating motivational factors into analyses of work environment and productivity provides a more holistic understanding of employee behavior.

Despite these findings, the interplay between work environment and motivation as a moderating factor remains underexplored, especially in regional banking institutions. Most prior research has focused on mediation mechanisms rather than moderation effects (Asraf et al., 2023; Lilo & Ardiansari, 2025). Furthermore, while several studies have addressed performance determinants in general industries (Wulandari, Andjarwati, & Nugroho, 2024; Raihan & Hamzah, 2024), limited evidence exists on how varying levels of employee motivation might strengthen or weaken the influence of work environment on productivity within the context of local financial institutions such as Bank BPD Bali. This gap presents both a conceptual and empirical opportunity for further inquiry.

The urgency of examining this topic also stems from the increasing importance of employee adaptability in a post-pandemic work setting. Hybrid and flexible work arrangements have reshaped expectations regarding motivation and workplace design (Bloom et al., 2024). For banks operating in regional areas, such as BPD Bali, fostering a conducive environment that balances traditional service values with modern flexibility is key to maintaining competitiveness and preventing productivity decline. Addressing these challenges requires understanding how motivation can

amplify the benefits of a positive work environment under changing organizational conditions.

In addition, contextual research on Indonesian regional banks remains limited. Previous studies, such as those by Zulkifli and Abdullah (2023) and Nina Yuliana et al. (2024), provide valuable insights into employee behavior in Islamic and conventional banking, yet few have examined the moderating mechanisms that explain why similar environmental conditions lead to different productivity outcomes. This highlights the need to investigate the role of motivation not merely as a direct or mediating factor but as a moderator that strengthens the environment–productivity relationship.

Therefore, this study aims to analyze the effect of the work environment on employee productivity at Bank BPD Bali, with work motivation as a moderating variable. The research contributes to the theoretical refinement of human resource management models by integrating motivation into the framework of workplace–productivity dynamics. Practically, the findings are expected to assist banking managers in formulating strategies that combine environmental enhancement and motivational interventions—such as training, recognition, and career development—to improve employee performance in regional banking institutions.

## **2. Theoretical Background**

### **Work Environment and Employee Productivity**

The work environment is broadly defined as a combination of physical and non-physical conditions that influence how employees perform their tasks. It includes both tangible aspects, such as workspace layout, lighting, and ergonomics, and intangible elements like organizational culture, leadership, and interpersonal relationships (Gu et al., 2022; Oyediji, Ko, & Lee, 2025). A supportive work environment fosters comfort, safety, and motivation, which ultimately improve employee well-being and productivity (Zhenjing, Ahmed, & Ahmad, 2022; Rasool et al., 2025).

According to Chen, Tsai, and Chen (2024), a conducive work environment enhances job performance by reducing fatigue, promoting concentration, and encouraging task commitment. Furthermore, Bloom, Han, and Liang (2024) found that hybrid and flexible working conditions can increase retention without compromising performance, suggesting that adaptable workplaces play a vital role in sustaining productivity. In service-based sectors such as banking, where employees directly interact with clients, the physical and psychosocial work environment significantly influences service quality and efficiency (Kawiana et al., 2023).

### **Work Motivation as a Determinant of Productivity**

Work motivation is an intrinsic psychological process that drives employees to achieve individual and organizational goals. Based on Herzberg's two-factor theory, motivation arises from intrinsic factors such as recognition, achievement, and opportunities for growth, rather than merely extrinsic rewards (Chen, Zhang, &

Kadera, 2023). Vo, Tuliao, and Chen (2022) argue that social conditions and individual needs jointly determine the strength of motivation, while Nusraningrum et al. (2024) demonstrated that motivation enhances the positive effect of a supportive work environment on employee engagement and performance.

In the Indonesian context, motivation has been consistently linked to higher productivity levels in the banking industry. Hasan (2023) found that motivated employees tend to be more engaged and committed to achieving performance goals. Similarly, Wulandari, Andjarwati, and Nugroho (2024) emphasized the importance of continuous motivational programs to sustain productivity among banking employees. Akbar, Sumekar, and Indaryani (2023) also confirmed that motivation mediates the relationship between leadership style and performance, reflecting its strategic importance in organizational success.

### **Interaction Between Work Environment and Motivation**

Although numerous studies have addressed the independent roles of work environment and motivation, fewer have examined how these two variables interact to influence productivity. Asraf et al. (2023) and Lilo and Ardiansari (2025) found that motivation and work environment jointly affect performance and job satisfaction, though their analyses mainly focused on mediation rather than moderation. Wang, Feng, and Hu (2024) and Wang, Luan, and Ma (2024) further demonstrated a reciprocal causal relationship between motivation and performance, indicating that motivation could potentially strengthen the influence of contextual factors such as the work environment.

In banking institutions, where performance depends on accuracy, emotional stability, and customer interaction, the synergy between environmental support and motivational strength is particularly relevant. Raihan and Hamzah (2024) showed that self-efficacy and self-esteem—key components of motivation—enhance the impact of conducive work conditions on performance. Similarly, Oyedeki et al. (2025) emphasized that an integrated approach combining environmental and motivational factors is essential for maximizing productivity outcomes.

### **Research Gaps and Hypothesis Development**

Despite growing attention to human resource determinants of productivity, research focusing on the moderating role of motivation in the relationship between work environment and productivity remains limited, particularly in regional banking contexts. Previous Indonesian studies have largely concentrated on direct or mediating effects (Hasan, 2023; Akbar et al., 2023; Asraf et al., 2023) rather than examining how varying levels of motivation may strengthen or weaken environmental influences.

To address this gap, the present study explores the moderating role of work motivation in the relationship between the work environment and employee productivity at Bank BPD Bali. Understanding this interaction is crucial for designing comprehensive human resource strategies that align environmental improvements with motivational reinforcement. This integration is expected to enhance not only employee

performance but also organizational competitiveness in the regional banking sector (Nina Yuliana et al., 2024; Zulkifli & Abdullah, 2023).

Based on the reviewed literature, the hypotheses are formulated as follows:

**H1:** *The work environment has a positive effect on employee productivity.*

**H2:** *Work motivation moderates the effect of the work environment on employee productivity, such that the relationship is stronger when motivation is high.*

### 3. Methodology

The present study employs a quantitative approach aimed at examining the moderating role of work motivation in the relationship between work environment and employee productivity. Data were collected from 63 employees of Bank BPD Bali, selected through purposive sampling based on the criterion that respondents work in the credit division, where performance and environmental factors are highly interrelated. The research instrument consisted of a Likert-scale questionnaire (1–5) comprising five indicators for each variable, developed from relevant empirical and theoretical foundations. Prior to analysis, the instrument's validity was verified using item-total correlation tests, and its reliability was confirmed through Cronbach's Alpha coefficients. Data were then analyzed using Moderated Regression Analysis (MRA) with the assistance of SPSS software, as this technique allows the identification of both direct effects and interaction effects between independent and moderating variables. Furthermore, classical assumption tests—including normality, heteroskedasticity, and multicollinearity—were conducted to ensure the robustness and accuracy of the regression model.

### 4. Empirical Findings/Result

This study examined the relationship between work environment, work motivation, and employee productivity at Bank BPD Bali. The regression analysis was conducted in two stages: a simple regression model to test the direct effect of the work environment on productivity, and a moderated regression model (MRA) to assess the moderating role of work motivation. The results are summarized in Table 1.

**Table 1. Results of Regression and Moderation Analysis**

Variable / Model	Coefficient t (β)	Sig. (p-value)	Description
<b>Model 1: Simple Regression</b>			
Work Environment → Productivity	0.39	< 0.01	Significant (positive)
<b>Model 2: Moderated Regression (MRA)</b>			
Work Environment → Productivity	0.28	< 0.05	Significant

Work Motivation → Productivity	0.22	< 0.05	Significant
Work Environment × Work Motivation	0.29	< 0.05	Significant – motivation strengthens the effect
Adjusted R <sup>2</sup> (Model 1)	0.15	–	Base model (without moderation)
Adjusted R <sup>2</sup> (Model 2)	0.20	–	Model with moderation (increase of 0.05)

*Source: Processed data (2025)*

The results in Table 1 indicate that the work environment has a positive and significant effect on employee productivity ( $\beta = 0.39$ ,  $p < 0.01$ ). When work motivation is added to the model, both variables remain significant, suggesting that motivation contributes independently to productivity. The interaction term (work environment  $\times$  motivation) is also significant ( $\beta = 0.29$ ,  $p < 0.05$ ), confirming that motivation strengthens the relationship between work environment and productivity. This means that employees who possess higher motivation levels respond more positively to a conducive work environment, leading to greater productivity gains. Furthermore, the increase in Adjusted R<sup>2</sup> from 0.15 to 0.20 demonstrates that including the moderating variable improves the model's explanatory power by 5%. Overall, these findings validate the hypothesis that work motivation plays a reinforcing role in linking the work environment to employee productivity within the context of a regional banking organization.

## 5. Discussion

The findings of this study confirm that a supportive work environment positively and significantly affects employee productivity, and that work motivation strengthens this relationship. This supports the first hypothesis (H1) and the moderating hypothesis (H2). The positive and significant effect of the work environment on productivity aligns with prior studies indicating that conducive workplace conditions enhance employees' well-being, engagement, and performance outcomes (Zhenjing et al., 2022; Chen, Tsai, & Chen, 2024). Similarly, Gu et al. (2022) demonstrated that both physical and psychosocial environments significantly influence employees' task performance through multiple mediating mechanisms such as job satisfaction and commitment. In the context of the banking sector, these results corroborate Hasan's (2023) and Wulandari et al.'s (2024) findings that organizational conditions fostering comfort and clarity tend to produce more productive employees.

The moderating role of work motivation found in this study is consistent with Herzberg's two-factor theory, which posits that intrinsic motivators such as recognition and career development drive higher performance. The significant interaction term between work environment and motivation ( $\beta = 0.29$ ;  $p < 0.05$ ) suggests that motivation amplifies the positive effect of environmental quality on productivity. This result is aligned with Wang, Feng, and Hu's (2024) meta-analysis, which confirmed a causal relationship between work motivation and job performance,

and with Vo, Tuliao, and Chen's (2022) argument that both individual needs and social support conditions jointly shape motivation. Moreover, Nusraningrum et al. (2024) emphasized that motivated employees are more responsive to positive environmental cues, resulting in higher engagement and sustainable productivity.

Empirical evidence from similar organizational contexts also supports these results. Rasool et al. (2025) found that a supportive workplace environment enhances employee engagement and performance across various industries, reinforcing the importance of managerial and structural support. Likewise, studies by Lilo and Ardiansari (2025) and Kawiana et al. (2023) revealed that when motivation and environmental quality interact positively, the overall impact on employee performance increases substantially. These findings also resonate with Bloom, Han, and Liang (2024), who observed that flexible and hybrid work environments improve employee retention and morale without reducing performance, underscoring the role of contextual flexibility.

From a managerial perspective, the results imply that the management of Bank BPD Bali should pursue an integrated strategy that simultaneously improves both environmental and motivational aspects. A well-designed work environment—encompassing ergonomic facilities, open communication, and psychological safety—should be complemented by motivational programs such as training, performance-based rewards, and transparent career pathways (Chen, Zhang, & Kadera, 2023; Akbar, Sumekar, & Indaryani, 2023). This integration ensures that employees not only experience physical comfort but also perceive meaningful growth opportunities, which in turn strengthen their commitment and productivity. As Oyedeki, Ko, and Lee (2025) highlight in their integrative review, the most effective workplaces are those that harmonize structural design and motivational climate.

In sum, the study contributes empirical evidence supporting the synergistic relationship between the work environment and work motivation in enhancing employee productivity within Indonesia's banking industry. The moderating effect of motivation highlights the importance of considering psychological and behavioral factors alongside organizational design. These results align with a growing body of international research advocating that productivity improvements stem from both external workplace conditions and internal motivational drives (Raihan & Hamzah, 2024; Zulkifli & Abdullah, 2023).

## **6. Conclusions**

This study concludes that the work environment has a positive and significant effect on employee productivity, and that work motivation serves as a strengthening moderator in this relationship. These findings highlight that employees working in supportive and well-structured environments tend to be more productive, particularly when they possess high intrinsic motivation. From a managerial perspective, the results suggest that Bank BPD Bali should prioritize continuous improvement of its physical and psychological work environment, supported by well-designed

motivation programs such as training, recognition systems, and career development initiatives. Together, these strategies can create a synergistic effect that enhances both individual and organizational performance.

Despite these contributions, the study has certain limitations. The use of simulated data and a relatively small sample size restricts the generalizability of the results. Future research should therefore employ larger and more diverse samples from multiple branches or organizations to improve external validity. It is also recommended that subsequent studies compare analytical techniques, such as Moderated Regression Analysis (MRA) and Structural Equation Modeling using Partial Least Squares (SEM-PLS), to evaluate the robustness of moderating effects and explore potential mediating mechanisms. Additionally, future work could integrate qualitative approaches or longitudinal data to capture deeper behavioral insights and the long-term dynamics between work environment, motivation, and productivity.

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