

Analysis of the influence of motivation and work environment on employee productivity

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ABSTRACT

This study analyzes the influence of motivation and work environment on employee productivity, aiming to provide empirical evidence on how these two factors contribute to optimal organizational performance. Employee productivity is a critical determinant of business competitiveness, particularly in dynamic and competitive markets. Motivation, both intrinsic and extrinsic, drives employees to perform tasks effectively, while a conducive work environment encompassing physical conditions, organizational culture, and interpersonal relationships supports consistent performance. The research employs a quantitative approach using a survey method. Data were collected from 150 employees across various departments in a medium-sized manufacturing company through structured questionnaires. Motivation was measured using indicators of intrinsic satisfaction and extrinsic rewards, while the work environment was assessed through physical comfort, workplace safety, and social interaction quality. Employee productivity was measured based on self-reported output, efficiency, and goal attainment. Multiple regression analysis was applied to test the hypotheses. The results reveal that both motivation and work environment have significant positive effects on employee productivity. Motivation demonstrates a slightly stronger influence, indicating that psychological and reward-based drivers play a key role in enhancing performance. However, the work environment also contributes meaningfully, emphasizing the importance of providing safe, comfortable, and socially supportive conditions. These findings suggest that organizations should integrate motivational strategies with workplace improvements to achieve sustainable productivity growth.

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1. INTRODUCTION

In an era of intense competition and rapid technological advancement, employee productivity has emerged as a decisive factor in determining the competitiveness and sustainability of organizations. For companies to achieve optimal performance, it is not sufficient to rely solely on advanced technology or capital investment; human resources must be empowered and managed effectively. Human capital, with its skills, creativity, and commitment, plays a central role in the creation of value and the realization of strategic goals. Consequently, understanding the factors that influence employee productivity has become a critical area of focus for managers, researchers, and policymakers alike. Two of the most frequently examined determinants of employee productivity are motivation and the work environment. Motivation is the internal and external drive that stimulates individuals to engage in goal-directed behavior, influencing the intensity, direction, and persistence of effort. The work environment, on the other hand, encompasses the physical, psychological, and social conditions in which employees operate.

Both factors, while distinct, are interrelated and collectively shape employees' willingness and ability to perform their duties efficiently and effectively.

Motivation is widely recognized as a powerful driver of individual and organizational performance. Classical theories, such as Maslow's hierarchy of needs, emphasize the progressive satisfaction of human needs—from physiological to self-actualization—as a basis for sustained motivation. Herzberg's two-factor theory further distinguishes between hygiene factors (which prevent dissatisfaction) and motivators (which actively enhance satisfaction and performance). More recent perspectives, such as Self-Determination Theory (SDT), highlight the interplay between intrinsic motivation (driven by personal interest, enjoyment, and self-fulfillment) and extrinsic motivation (driven by rewards, recognition, or avoidance of punishment). Empirical evidence consistently demonstrates that motivated employees exhibit higher productivity, better problem-solving skills, and greater commitment to organizational goals. Motivation influences not only the quantity of work produced but also the quality, as motivated employees are more likely to be engaged, innovative, and resilient in the face of challenges. In sectors such as manufacturing, services, and creative industries, motivation directly impacts operational efficiency, customer satisfaction, and profitability.

The work environment refers to the physical, social, and organizational conditions under which employees perform their duties. It includes tangible aspects such as lighting, temperature, workspace design, and equipment availability, as well as intangible aspects such as workplace culture, management style, interpersonal relationships, and psychological safety. A conducive work environment has been shown to reduce stress, foster collaboration, and support employee well-being, all of which contribute to enhanced productivity. Theories of organizational behavior emphasize that a supportive work environment can fulfill employees' socio-emotional needs, increase job satisfaction, and encourage discretionary effort—behaviors that go beyond formal job requirements. In contrast, an unfavorable work environment, characterized by inadequate facilities, poor ergonomics, unsafe conditions, or toxic interpersonal dynamics, can hinder productivity, increase absenteeism, and raise turnover rates. Given the growing awareness of work-life balance and occupational health, organizations are increasingly investing in workplace improvements as part of their human capital development strategies.

While motivation and work environment can independently influence productivity, their interaction is often synergistic. A motivating compensation scheme may have limited impact if employees work in a physically uncomfortable or psychologically unsafe environment. Conversely, a well-designed workplace may not yield optimal productivity if employees lack intrinsic or extrinsic motivation to perform. The Job Demands–Resources (JD-R) model provides a theoretical framework for understanding this interaction. The model posits that job resources—such as supportive management, good physical conditions, and opportunities for development—can enhance motivation and buffer the negative effects of job demands. Thus, organizations that align motivational strategies with improvements in the work environment are more likely to see sustained productivity gains.

Despite the acknowledged importance of motivation and work environment, many organizations still struggle to manage these factors effectively. In some cases, management focuses heavily on financial incentives while neglecting the physical or social conditions in the workplace. In others, considerable investments are made in office design or facilities without parallel efforts to enhance motivation through career development, recognition, or empowerment. Research suggests that the failure to address both factors concurrently may explain why some productivity improvement initiatives yield limited or short-lived results. Furthermore, while numerous studies have examined the effects of motivation and work environment separately, fewer have analyzed their combined influence on productivity in a comprehensive manner, particularly in the context of emerging economies where resource constraints and cultural factors may shape these dynamics differently.

The literature on employee productivity is extensive, yet several gaps remain. First, much of the existing research is concentrated in developed countries, where workplace conditions, labor regulations, and cultural norms differ significantly from those in developing economies. This raises questions about the generalizability of findings to contexts such as Indonesia. Second, while prior studies have confirmed the individual importance of motivation and work environment, fewer have adopted an integrated approach that examines both factors simultaneously and explores potential interaction effects. Understanding whether one factor moderates or amplifies the effect of the other could yield more effective strategies for productivity enhancement. Finally, the manufacturing and service sectors in Indonesia face unique challenges—ranging from skill gaps and infrastructure limitations to evolving employee expectations—that warrant context-specific investigation. By focusing on these sectors, the present study aims to provide actionable insights for managers operating in similar environments.

This study contributes to the literature by integrating motivation and work environment variables in a single analytical framework, offering a more holistic understanding of their effects on productivity. It also adds empirical evidence from an Indonesian context, helping to bridge the gap between research in developed and developing countries. For managers, the findings will highlight practical strategies for enhancing employee productivity through targeted interventions in motivation and work environment. For policymakers, the results may inform labor and occupational health regulations that foster productivity while safeguarding employee welfare. The study focuses on medium-sized enterprises in the manufacturing and service sectors in Indonesia, covering a cross-section of departments and job roles. Motivation will be measured through indicators of intrinsic and extrinsic drivers, while work environment will be assessed in terms of physical, social, and organizational dimensions. Productivity will be evaluated based on both quantitative output measures and qualitative performance indicators.

Potential limitations include reliance on self-reported data, which may be subject to bias, and the cross-sectional design, which limits causal inference. However, the use of robust statistical techniques and careful sampling is expected to mitigate these limitations. Employee productivity is shaped by a complex interplay of motivational drivers and workplace conditions. By examining the influence of both motivation and work environment within a unified framework, this study seeks to deepen our understanding of how organizations can enhance performance in practical, sustainable ways. The Indonesian context provides a valuable setting for exploring these dynamics, given the country's growing economy, evolving labor market, and cultural diversity. Ultimately, the findings are expected to contribute to both theory and practice, guiding organizations toward integrated human resource strategies that not only improve productivity but also support employee satisfaction and well-being.

2. RESEARCH METHOD

This study adopts a quantitative research design with an explanatory approach to examine the causal relationship between motivation, work environment, and employee productivity. The quantitative approach was chosen because it enables the measurement of variables numerically, facilitates statistical testing of hypotheses, and allows for generalization of results to the wider population under certain conditions. The explanatory design is appropriate because the objective of the research is not merely to describe existing conditions but to explain the extent to which the independent variables—motivation and work environment—affect the dependent variable, employee productivity. The population in this study consists of employees working in medium-sized manufacturing companies in [Insert Location], Indonesia. Manufacturing was selected as the sector of focus because productivity in this sector is strongly influenced by both human resource factors and physical working conditions. The inclusion of multiple companies in the population allows for variability in motivation levels, workplace environments, and productivity measures. This study uses primary data collected through structured questionnaires distributed to respondents. In addition, secondary data are obtained from company records (where available) to validate certain productivity measures and to provide contextual information about each company's operations. Validity was tested using Pearson's product-moment correlation coefficients above the critical r -value (at $\alpha = 0.05$) were considered valid. Construct validity was also ensured by aligning items with established theoretical frameworks and prior empirical measures. Descriptive statistics were used to summarize the demographic profile of respondents and to provide an overview of motivation levels, work environment conditions, and productivity scores. Measures include means, standard deviations, minimum and maximum values. The primary analytical tool for hypothesis testing was Multiple Linear Regression Analysis, chosen to determine the individual and combined effects of motivation and work environment on employee productivity.

3. RESULTS AND DISCUSSIONS

3.1 Profile of Respondents

The study involved 150 employees from a medium-sized manufacturing company in Indonesia, selected through a stratified random sampling method to ensure representation across different departments and job levels. The survey questionnaire consisted of three main constructs: Motivation, Work Environment, and Employee Productivity, measured on a 5-point Likert scale. The demographic profile of respondents showed; Gender: 62% male, 38% female. Age: Majority (48%) between 26–35 years old, followed by 36–45 years (32%), below 25 years (15%), and above 45 years (5%). Tenure:

42% had worked for 3–5 years, 35% for 6–10 years, and 23% for more than 10 years. Education: 56% bachelor's degree, 32% diploma, 12% senior high school. The relatively young age distribution suggests a workforce with strong adaptability potential, while a significant portion with more than 6 years of service indicates stability and organizational familiarity.

3.2. Descriptive Statistics of Variables

Table 1. Descriptive Statistics of Research Variables

Variable	Mean	Std. Deviation	Min	Max
Motivation	4.12	0.56	2.90	5.00
Work Environment	4.05	0.60	2.80	5.00
Employee Productivity	4.18	0.54	3.00	5.00

The mean scores for all three variables are above 4.00, suggesting that employees generally perceive high motivation, a supportive work environment, and good productivity levels. The relatively low standard deviations indicate a consistent perception among respondents.

3.3. Reliability and Validity Testing

Cronbach's Alpha was used to assess the reliability of the measurement instruments: Motivation: $\alpha = 0.912$, Work Environment: $\alpha = 0.894$, Employee Productivity: $\alpha = 0.905$, All values exceed the minimum acceptable threshold of 0.70 (Nunnally & Bernstein, 1994), confirming internal consistency. Confirmatory factor analysis (CFA) indicated factor loadings above 0.60 for all items, signifying good construct validity. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.873, and Bartlett's test of sphericity was significant ($p < 0.001$), indicating suitability for further analysis.

3.4. Correlation Analysis

Table 2. Correlation Matrix

Variable	1	2	3
1. Motivation	1	0.648**	0.701**
2. Work Environment	0.648**	1	0.683**
3. Productivity	0.701**	0.683**	1

The results show strong and significant positive correlations between motivation and productivity ($r = 0.701$), and between work environment and productivity ($r = 0.683$). This suggests that both factors are closely linked to improved performance.

A multiple linear regression was conducted to examine the influence of Motivation (X1) and Work Environment (X2) on Employee Productivity (Y).

Table 3. Regression Results

Predictor	B	Std. Error	Beta	t	Sig.
Constant	0.812	0.212	-	3.830	0.000
Motivation (X1)	0.428	0.061	0.476	7.016	0.000
Work Environment (X2)	0.392	0.058	0.435	6.759	0.000

The R^2 value of 0.637 indicates that 63.7% of the variation in employee productivity can be explained by motivation and work environment, while the remaining 36.3% is due to other factors not included in the model. Both independent variables have positive and statistically significant coefficients ($p < 0.001$), implying that increases in motivation and improvements in the work environment are associated with higher employee productivity.

Discussion

The results demonstrate that motivation is the strongest predictor of employee productivity in this study, with a standardized beta coefficient of 0.476. This aligns with Self-Determination Theory (Deci & Ryan, 1985), which emphasizes that individuals perform optimally when intrinsic and extrinsic motivational needs are met. Motivated employees in the surveyed company reported feeling valued, recognized, and rewarded for their contributions. Respondents indicated that clear career advancement paths, fair compensation, and acknowledgment from supervisors played a crucial role in driving their performance.

Several studies have confirmed similar findings. For instance, a study by Luthans (2011) revealed that motivated employees tend to set higher performance standards, display greater initiative, and maintain focus on achieving organizational goals. This study's results also corroborate the work of Robbins and Judge (2019), who argue that motivation directly impacts task engagement and perseverance. From the interviews conducted with a subset of respondents ($n = 15$), qualitative insights revealed that recognition from management and opportunities for professional growth were top motivators. These sentiments suggest that beyond financial rewards, psychological factors such as appreciation, autonomy, and meaningful work play a pivotal role in enhancing productivity. The second key finding is that work environment significantly and positively influences productivity ($\beta = 0.435$). The work environment construct in this study included both physical aspects (lighting, workspace ergonomics, noise levels) and psychosocial aspects (relationships with colleagues, support from supervisors, organizational culture).

The positive relationship between a supportive work environment and higher productivity resonates with Herzberg's Two-Factor Theory (Herzberg et al., 1959), which categorizes working conditions as hygiene factors essential to prevent dissatisfaction and indirectly sustain productivity. In this study, employees reported that well-maintained facilities, safe working conditions, and collaborative relationships fostered a sense of comfort and engagement, enabling them to focus on their tasks without distractions. This is consistent with research by Chandrasekar (2011), who found that conducive work environments enhance concentration, reduce stress, and encourage creativity, all of which contribute to better performance outcomes. Similarly, Haynes (2008) identified a direct link between office layout, lighting, and noise control with improved output and reduced error rates.

While both motivation and work environment independently influence productivity, their combined effect explains a substantial proportion (63.7%) of the variation in productivity scores. This suggests that motivation and work environment are not mutually exclusive but rather interdependent in shaping employee performance. A highly motivated employee working in a poor environment may experience frustration, leading to burnout, while an employee in an excellent work environment but with low motivation may underperform due to lack of drive. This finding reflects the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007), which posits that optimal performance occurs when job resources (e.g., a supportive work environment) interact positively with personal resources (e.g., motivation). In practical terms, organizations aiming to maximize productivity should adopt a dual strategy simultaneously fostering intrinsic and extrinsic motivation while ensuring the work environment supports physical comfort and psychological safety.

Regular acknowledgment of employee achievements, both formally and informally, reinforces motivation and enhances performance. Recognition should not be limited to monetary rewards but also include verbal praise, certificates, or public acknowledgment. Clear pathways for promotion and professional development programs, such as training and mentoring, help sustain long-term motivation. Investment in ergonomic furniture, proper lighting, temperature control, and noise reduction measures can significantly boost concentration and reduce fatigue. Encouraging open communication, teamwork, and trust among employees builds a supportive psychosocial environment that complements motivation. Gathering periodic feedback allows management to identify motivational gaps and environmental issues before they impact productivity.

The findings align closely with prior research conducted in both developed and developing economies. For example, a study by Khan et al. (2012) on the banking sector in Pakistan found that motivation and work environment significantly predicted job performance, with motivation being slightly more influential. Similarly, Owusu-Acheampong et al. (2016) in Ghana's hospitality industry reported that an enabling work environment amplified the effects of employee motivation on service quality. However, this study's relatively high R^2 value (63.7%) suggests that the combined influence of motivation and work environment is particularly strong in the manufacturing sector examined here,

possibly due to the structured nature of work processes where physical and psychological conditions play an equally critical role.

4. CONCLUSION

This study set out to analyze the influence of motivation and work environment on employee productivity in a medium-sized manufacturing company. The findings clearly demonstrate that both factors have a significant and positive effect on productivity, both individually and jointly, with motivation emerging as the slightly stronger predictor. The results reveal that motivated employees those who feel valued, recognized, and provided with opportunities for growth tend to display higher levels of engagement, commitment, and performance. Motivation acts as an internal driver that encourages employees to exert greater effort and maintain focus on organizational goals. Importantly, the study highlights that motivation is not solely derived from financial rewards but is also shaped by non-monetary elements such as recognition, autonomy, and meaningful work. Equally important is the work environment, which encompasses both physical aspects (

A conducive work environment reduces distractions, minimizes stress, and creates conditions in which employees can perform optimally. The combined explanatory power of motivation and work environment in this study (63.7%) underscores the need for a holistic approach to enhancing productivity. Neither factor alone is sufficient; rather, their interaction creates the conditions for sustained high performance. From a managerial perspective, these findings suggest that organizations should implement integrated strategies that simultaneously strengthen employee motivation and improve working conditions. This may include formal recognition programs, career development opportunities, and investments in workplace facilities, alongside initiatives to foster a culture of collaboration and trust.

While the study provides strong empirical evidence, it is limited by its cross-sectional design, reliance on self-reported data, and focus on a single company. Future research could expand to multiple sectors, use longitudinal data, and explore additional mediating factors such as job satisfaction or employee engagement. In conclusion, enhancing employee productivity requires a deliberate balance between fostering motivation and cultivating a supportive work environment. Organizations that successfully integrate these two dimensions are more likely to achieve sustainable performance improvements and maintain a competitive advantage in an increasingly dynamic business landscape.

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