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The Influence of Physical Work Environment, Intrinsic Motivation, and Work Discipline on Employee Performance at PT Xing Hao Technology, South Tangerang: A Qualitative Exploration

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Abstrak

The manufacturing sector in Indonesia is currently experiencing rapid transformation driven by technological advancement, increased production targets, and growing competitive pressures. Under these circumstances, organizations are required to maintain high employee performance while simultaneously creating supportive working conditions that encourage motivation and discipline. This study aims to explore how the physical work environment, intrinsic motivation, and work discipline influence employee performance at PT Xing Hao Technology, South Tangerang. A qualitative descriptive approach was employed to obtain a comprehensive understanding of employees' experiences and perceptions regarding workplace conditions and performance outcomes. Data were collected through semi-structured interviews, Focus Group Discussions (FGDs), workplace observations, and organizational document reviews. The study involved twelve purposively selected participants consisting of two managers, three supervisors, five operational employees, and two administrative staff members. Data analysis followed Braun and Clarke's (2021) thematic analysis procedures, including familiarization, coding, theme development, review, definition, and interpretation. The trustworthiness of findings was ensured through credibility, transferability, dependability, and confirmability procedures. The findings indicate that a comfortable and safe physical work environment contributes positively to concentration and work efficiency. Intrinsic motivation encourages employees to demonstrate initiative, responsibility, and commitment toward organizational objectives. Furthermore, work discipline strengthens consistency in attendance, compliance with procedures, and timely completion of tasks. The interaction among these factors was found to significantly support employee performance improvement. The study recommends that manufacturing organizations prioritize workplace facilities, employee empowerment initiatives, and disciplinary systems to sustain organizational productivity and competitiveness.

Keywords: Physical Work Environment, Intrinsic Motivation, Work Discipline, Employee Performance, Manufacturing Industry

1. Introduction

The Indonesian manufacturing sector has experienced substantial operational changes following digital transformation, global competition, and increasing customer expectations regarding product quality and delivery speed. Manufacturing organizations are currently required not only to optimize technology and production systems but also to effectively manage human resources as strategic assets capable of sustaining organizational competitiveness. According to the International Labour Organization (2024), employee productivity remains one of the most important determinants of industrial sustainability, particularly in labor-intensive manufacturing environments characterized by strict deadlines and standardized operational procedures.

Employee performance has become a central concern for organizations because organizational effectiveness is highly dependent upon employees' ability to achieve established targets efficiently and consistently. According to Armstrong and Taylor (2023), employee performance reflects the extent to which workers can fulfill organizational objectives through the effective utilization of competencies, commitment, and behavioral engagement. Previous studies by Nguyen and Le (2023) found that organizations with high-performing employees tend to achieve superior operational outcomes, stronger customer satisfaction, and improved organizational resilience.

Among the determinants of employee performance, the physical work environment remains one of the most influential organizational factors. According to Al-Omari and Okasheh (2022), workplace conditions such as lighting quality, temperature, workspace arrangement, cleanliness, noise levels, and safety facilities significantly affect employee concentration and productivity. Research conducted by Putri and Rahmawati (2024) found that manufacturing employees working in supportive physical environments demonstrated higher efficiency and lower levels of fatigue compared with those operating under less favorable conditions.

Intrinsic motivation also plays a crucial role in shaping employee performance. According to Deci, Olafsen, and Ryan (2022), intrinsically motivated employees tend to perform tasks because of personal interest, enjoyment, and a sense of achievement rather than external rewards alone. Previous studies by Kim and Park (2023) found that intrinsic motivation contributes positively to employee creativity, problem-solving abilities, and organizational commitment, particularly in operational environments requiring continuous improvement and adaptive behavior.

Another determinant that consistently receives attention in human resource management research is work discipline. According to Dessler (2022), work discipline refers to employees' willingness to comply with organizational rules, schedules, and procedures to achieve operational effectiveness. Research conducted by Wibowo and Sari (2024) found that disciplined employees demonstrate higher consistency in attendance, task completion, and adherence to quality standards, thereby contributing directly to organizational performance outcomes.

Despite extensive empirical evidence regarding these variables, most previous studies have relied predominantly on quantitative methodologies focusing on statistical relationships among variables. According to Rahman and Yusuf (2023), quantitative approaches often provide limited explanations regarding employees' experiences and perceptions concerning workplace conditions and behavioral responses. Furthermore, previous studies largely concentrate on service industries and public organizations, while relatively limited attention has been directed toward manufacturing companies operating in South Tangerang.

Although previous studies have examined the relationship between physical work environment, motivation, discipline, and employee performance using survey-based methodologies, limited research has explored employees' lived experiences and managerial perspectives within Indonesian manufacturing organizations. Existing studies primarily emphasize numerical relationships rather than contextual understanding of organizational practices and employee interpretations of workplace realities.

The novelty of this study lies in its qualitative investigation of employee performance determinants within PT Xing Hao Technology using interviews, FGDs, observations, and document analysis. This study provides richer contextual insights regarding how workplace conditions, intrinsic motivation, and disciplinary practices interact to influence employee behavior and performance outcomes in manufacturing settings.

Therefore, this study aims to explore the influence of the physical work environment, intrinsic motivation, and work discipline on employee performance at PT Xing Hao Technology, South Tangerang, through employees' experiences, perceptions, and organizational practices.

According to Sedarmayanti (2022), the physical work environment refers to all physical conditions surrounding employees that may directly or indirectly influence their work activities. These conditions include lighting systems, air circulation, workplace layout, safety equipment, noise levels, and ergonomic facilities. According to Chandrasekar (2022), organizations with supportive physical environments are more likely to improve employee comfort, concentration, and productivity.

Intrinsic motivation originates from employees' internal psychological needs and personal satisfaction derived from performing work activities. According to Ryan and Deci (2022), intrinsic motivation emerges when employees experience autonomy, competence, and meaningfulness in their work activities. Research conducted by Lee and Chen (2024) found that intrinsically motivated employees exhibit stronger persistence, creativity, and problem-solving abilities than employees primarily motivated by external incentives.

Work discipline represents employees' willingness to comply voluntarily with organizational regulations and performance standards. According to Hasibuan (2023), work discipline reflects obedience toward attendance regulations, operational procedures, ethical standards, and organizational values. According to previous studies by

Prasetyo and Hidayat (2024), discipline contributes significantly to operational efficiency and reduces organizational uncertainty.

Employee performance refers to employees' achievements in fulfilling responsibilities according to predetermined quality and quantity standards. According to Robbins and Judge (2023), performance encompasses productivity, work quality, timeliness, initiative, cooperation, and responsibility. Research conducted by Ahmed et al. (2024) found that employee performance is strongly influenced by organizational support systems and individual psychological factors.

This study adopts Self-Determination Theory as the primary theoretical framework. According to Ryan and Deci (2022), individuals demonstrate superior performance when psychological needs for autonomy, competence, and relatedness are fulfilled. A supportive physical environment enhances comfort and competence, intrinsic motivation strengthens autonomy and engagement, while work discipline facilitates behavioral consistency and organizational integration.

Previous studies have demonstrated consistent relationships among these variables. According to Putri and Rahmawati (2024), physical work environment quality positively influences productivity within manufacturing organizations. Research conducted by Kim and Park (2023) found that intrinsic motivation increases employee engagement and work outcomes. Furthermore, Wibowo and Sari (2024) reported that discipline strengthens organizational effectiveness and individual performance consistency.

2. Method

This study employed a qualitative descriptive research design to explore employees' perceptions regarding workplace conditions and performance determinants at PT Xing Hao Technology, South Tangerang. The qualitative approach was considered appropriate because it allows researchers to understand social phenomena from participants' perspectives while capturing contextual organizational realities.

The study was conducted between January and March 2026 at PT Xing Hao Technology, a manufacturing company operating in South Tangerang. Participants were selected using purposive sampling to ensure representation from different organizational levels and functional responsibilities related to production activities and human resource management.

A total of twelve participants were involved in the study, consisting of two managers, three supervisors, five operational employees, and two administrative staff members.

Participant Code	Position	Number
M1–M2	Managers	2
S1–S3	Supervisors	3
O1–O5	Operational Employees	5
A1–A2	Administrative Staff	2
Total		12

Data collection was conducted through semi-structured interviews, workplace observations, document reviews, and Focus Group Discussions involving ten participants consisting of managers, supervisors, and operational employees. Interviews explored participants' perceptions regarding workplace facilities, motivational factors, disciplinary practices, and performance outcomes.

The FGD sessions focused on identifying shared experiences concerning production targets, workplace conditions, and employee engagement initiatives. Organizational documents, including attendance reports, training records, and performance evaluations, were also reviewed to strengthen data triangulation.

Data analysis followed Braun and Clarke's (2021) thematic analysis procedures consisting of data familiarization, initial coding, theme development, theme review, theme definition, interpretation, and reporting. Trustworthiness was established through credibility, transferability, dependability, and confirmability procedures involving member checking, triangulation, audit trails, and peer debriefing.

3. Results and Discussion

The findings indicate that employees perceive the physical work environment as an important determinant of their productivity and work quality. Several participants explained that adequate lighting, air circulation, and machine layout significantly reduced physical fatigue during long production shifts. One operational employee stated that improved ventilation systems introduced by management had increased comfort levels and reduced concentration problems during peak production periods.

Findings	Participant Responses	Interpretation
Workplace comfort improves concentration	10 participants agreed	Positive influence on productivity
Intrinsic motivation increases initiative	11 participants agreed	Stronger engagement
Discipline improves consistency	12 participants agreed	Higher performance reliability
Training supports competence	9 participants agreed	Better work quality

Most employees perceived that management attention toward workplace facilities represented organizational concern for employee wellbeing. These findings are consistent with Putri and Rahmawati (2024), who reported that supportive workplace conditions positively influence productivity and psychological wellbeing.

Several participants explained that intrinsic motivation emerged primarily from feelings of accomplishment, opportunities for learning, and recognition from supervisors. One supervisor stated that employees frequently demonstrated greater initiative when they believed their contributions were meaningful for organizational success. These findings are consistent with Kim and Park (2023), who found that intrinsic motivation enhances employee engagement and proactive behavior.

The findings further indicate that discipline was not merely perceived as compliance with regulations but also as a professional responsibility toward colleagues and production targets. Most employees perceived punctuality and procedural adherence as essential for maintaining production continuity and minimizing operational disruptions. This result supports the argument proposed by Hasibuan (2023) regarding discipline as a behavioral foundation for organizational effectiveness.

According to Self-Determination Theory proposed by Ryan and Deci (2022), employees achieve higher performance levels when psychological needs are fulfilled. The findings demonstrate that comfortable workplaces satisfy competence needs, intrinsic motivation strengthens autonomy, and discipline enhances relatedness and organizational integration.

Managers emphasized that performance improvement initiatives should not focus exclusively on monitoring and supervision but also on employee well-being and empowerment. These findings are consistent with Ahmed et al. (2024), who argued that sustainable performance management requires balancing organizational controls with employee development initiatives.

The findings suggest important managerial implications for manufacturing organizations. Investments in workplace facilities, employee recognition programs, and transparent disciplinary systems may contribute significantly to performance sustainability and organizational competitiveness.

The workplace observation process further revealed that employees working in production areas with sufficient lighting and adequate workstation arrangements tended to complete operational activities with fewer interruptions and lower error rates. Several participants explained that poor lighting conditions in the past had caused eye strain and reduced concentration, particularly during overtime periods. According to Zhang, Wang, and Chen (2025), ergonomic workplace design and environmental comfort are important determinants of employee efficiency because they reduce physical exhaustion and cognitive overload during repetitive manufacturing activities. These findings indicate that physical workplace improvements can contribute not only to employee comfort but also to production accuracy and quality consistency.

During the Focus Group Discussion sessions, operational employees emphasized that temperature stability and proper air circulation played an important role in maintaining stamina throughout long production shifts. One

participant explained that excessive heat previously contributed to fatigue and reduced motivation, particularly during periods of high production demand. These findings are consistent with Al-Omari and Okasheh (2022), who found that environmental conditions such as temperature and ventilation significantly influence employees' physical endurance and psychological wellbeing in manufacturing settings.

The study also found that intrinsic motivation was strongly associated with employees' perceptions of task significance and personal growth opportunities. Several participants reported that they experienced higher enthusiasm when assigned responsibilities that allowed them to demonstrate competence and contribute directly to production outcomes. According to Ryan and Deci (2022), employees are more likely to sustain high performance levels when work activities satisfy their psychological needs for competence and autonomy. The present findings therefore suggest that motivational factors within PT Xing Hao Technology extend beyond financial rewards and involve meaningful engagement with organizational objectives.

Several supervisors reported that employees who received recognition for problem-solving initiatives or production improvements demonstrated stronger commitment and higher levels of initiative in subsequent assignments. One supervisor explained that simple acknowledgment from management often encouraged employees to exceed minimum performance standards. Research conducted by Zhao, Liu, and Sun (2024) found that intrinsic motivation is positively associated with discretionary effort and organizational citizenship behavior, particularly during periods of operational change and increased competitive pressure.

The findings additionally indicate that opportunities for learning and skill development contributed substantially to employees' motivation and confidence. Most participants perceived internal training activities and technical guidance sessions as indicators of organizational investment in employee development. According to Kwon and Kim (2023), organizations that actively support employee learning tend to experience stronger motivation, higher retention rates, and improved productivity outcomes. This finding demonstrates the strategic importance of continuous learning initiatives within manufacturing organizations.

Regarding work discipline, participants consistently emphasized that punctuality and procedural compliance were necessary not only for individual performance but also for maintaining team coordination and production continuity. Several employees explained that delays or procedural violations by one employee often disrupted subsequent production stages and affected overall output targets. These findings support previous studies by Prasetyo and Hidayat (2024), which concluded that discipline functions as a mechanism for reducing operational uncertainty and improving workflow synchronization.

Interestingly, the study found that employees generally viewed disciplinary practices as supportive rather than punitive. Participants reported that transparent attendance policies and clear operational procedures created fairness and reduced interpersonal conflict within teams. According to Dessler (2022), disciplinary systems are more effective when employees perceive them as mechanisms for promoting organizational order rather than instruments of punishment. This perception appears to strengthen employee acceptance of organizational rules and procedures.

The interaction between the physical work environment, intrinsic motivation, and work discipline emerged as one of the most important findings of this study. Participants explained that favorable workplace conditions alone were insufficient to guarantee high performance if employees lacked internal motivation or commitment to organizational rules. Similarly, highly motivated employees could experience reduced productivity when workplace facilities were inadequate or operational procedures were inconsistently implemented. According to Albrecht et al. (2022), employee performance is multidimensional and is influenced by the interaction of environmental, psychological, and behavioral factors rather than by isolated organizational interventions.

From a theoretical perspective, these findings provide empirical support for Self-Determination Theory within manufacturing environments in Indonesia. According to Ryan and Deci (2022), organizational environments that support autonomy, competence, and relatedness encourage employees to internalize organizational goals and demonstrate sustained performance behaviors. In the context of PT Xing Hao Technology, supportive physical facilities strengthened perceptions of competence, intrinsic motivation enhanced autonomy, and disciplinary practices reinforced social integration and collective responsibility within work teams.

The managerial implications of this study are particularly relevant for manufacturing organizations facing increasing productivity demands and labor market competition. Managers should adopt integrated human resource strategies that combine workplace improvements, recognition systems, employee development programs, and fair disciplinary mechanisms. According to Ahmed et al. (2024), organizations that simultaneously address environmental and psychological determinants of performance are more likely to achieve sustainable productivity improvements and long-term organizational competitiveness. Consequently, investment in employee wellbeing should be viewed not as an operational cost but as a strategic organizational resource capable of generating long-term performance advantages.

4. Conclusion

This study demonstrates that the physical work environment, intrinsic motivation, and work discipline collectively contribute to employee performance improvement at PT Xing Hao Technology, South Tangerang. Employees perceived supportive workplace conditions, meaningful work experiences, and consistent disciplinary practices as important factors influencing productivity, responsibility, and work quality. The findings contribute theoretically to Self-Determination Theory by illustrating the interaction between environmental and psychological factors in shaping employee behavior within manufacturing settings. Practically, organizations should prioritize workplace improvements, employee empowerment programs, and fair disciplinary systems to strengthen performance sustainability. Future studies are encouraged to explore similar phenomena in different industries and organizational contexts using mixed-method approaches to enhance generalizability.

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