

Building High Performance: The Role of Individual Characteristics and Discipline Through Job Satisfaction

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Abstract

Employee performance is a strategic factor that determines organizational success in facing business competition, particularly in companies operating in the industrial equipment trading sector. This study aimed to analyze the effects of individual characteristics and discipline on employee performance, with job satisfaction as a mediating variable. The study employed a quantitative approach with an explanatory research design. The research sample was determined using a saturated sampling technique involving all 70 permanent employees of an air compressor trading company in Jakarta. Data were collected through questionnaires using a five-point Likert scale. Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 3.0 software. The results showed that individual characteristics had positive and significant effects on job satisfaction and employee performance. Discipline had a significant effect on job satisfaction but did not have a direct effect on employee performance. Job satisfaction had a positive effect on employee performance and partially mediated the relationship between individual characteristics and employee performance. Conversely, job satisfaction did not mediate the relationship between discipline and employee performance. These findings imply that improving employee competencies and fostering job satisfaction are important strategies for sustainably enhancing employee performance.

INTRODUCTION

The development of the manufacturing industry sector in Indonesia has increased the demand for various production equipment that supports operational efficiency (Judijanto et al., 2024; Permana et al., 2023; Suseno et al., 2023). One type of equipment with a strategic role is the air compressor, which is widely used in the automotive, food and beverage, pharmaceutical, electronics, mining, and heavy manufacturing industries (Candra et al., 2024; Mohamad, 2022; Tamilselvi, 2025). This condition has intensified competition among companies engaged in air compressor trading and after-sales services. Based on market projections published by Statzon, the air compressor market in Indonesia was valued at approximately USD 441.38 million in 2023 and is projected to increase to USD 570.91 million by 2030, with a Compound Annual Growth Rate (CAGR) of approximately 3.23%. This growth indicates that companies are no longer focused solely on product sales but are also required to provide fast, accurate, and high-quality technical services to maintain customer

satisfaction and loyalty (Brunner et al., 2025; Kosasih et al., 2024; Naini et al., 2022; Oguna & Alaob, 2023).

In facing these conditions, employee performance is a critical factor in determining organizational success (Akerele, 2023; Baloch et al., 2022; Bunteng, 2022; Rubio-Valdehita et al., 2023). In companies engaged in industrial equipment trading, performance is measured not only by sales target achievement but also by the ability to provide technical solutions, deliver services efficiently, communicate effectively with customers, and maintain long-term business relationships. High-performing employees can increase organizational productivity, strengthen competitiveness, and provide added value to customers. Conversely, low employee performance may reduce service quality, increase customer complaints, and negatively affect market confidence.

One factor considered to influence employee performance is individual characteristics. Robbins and Judge explain that individual characteristics represent a combination of abilities, experience, competencies, personality, and background that influence work behavior and organizational performance. In an air compressor trading company, individual characteristics are particularly important because employees require not only technical knowledge of products but also communication skills, negotiation abilities, problem-solving capabilities, and the ability to provide customer consultation. Employees with strong technical competencies and positive individual characteristics tend to deliver more effective services, resulting in improved performance.

In addition to individual characteristics, work discipline is an organizational factor that plays an important role in improving work effectiveness and performance. Discipline reflects employee compliance with organizational regulations, standard operating procedures (SOPs), punctuality, and responsibility in completing assigned tasks. In companies engaged in trading and technical services, work discipline is essential for maintaining service quality, ensuring technician visit schedules, accelerating task completion, and maintaining consistent service standards for customers. Therefore, work discipline is often considered an important indicator in supporting organizational performance.

However, previous research findings have shown inconsistencies regarding the relationships among individual characteristics, work discipline, and employee performance. Several studies have found that individual characteristics have positive and significant effects on employee performance, whereas other studies have indicated that these effects may weaken when organizations fail to create a work environment that promotes employee satisfaction. Research on work discipline has also produced inconsistent findings. Some studies have demonstrated that discipline directly improves performance, while others have found that discipline alone does not necessarily improve performance without positive psychological conditions, particularly job satisfaction. These differences indicate a continuing research gap that requires further investigation.

Beyond the research gap, this study also addresses an empirical gap arising from the actual conditions of the research setting. PT ACI, an air compressor trading company, faces challenges in achieving sales targets and improving customer service quality. Although the company has implemented disciplinary policies and employs workers with adequate competency backgrounds, employee performance levels continue to vary significantly. This condition suggests that performance improvement is influenced not only by individual

characteristics and work discipline but also by psychological factors, particularly employee job satisfaction.

From the perspective of Social Exchange Theory and organizational behavior theory, job satisfaction represents an employee's affective response toward their work, which can encourage positive work behaviors, organizational commitment, and improved performance. Employees who experience higher job satisfaction tend to demonstrate greater motivation, loyalty, and work engagement compared with employees with lower satisfaction levels. Therefore, job satisfaction is considered a potential mediating variable that explains how individual characteristics and work discipline contribute to improved employee performance.

The novelty of this research lies in developing a model that examines the relationships among individual characteristics, work discipline, and employee performance by positioning job satisfaction as a mediating variable in an air compressor trading company. Research examining this model remains limited, particularly in Business-to-Business (B2B) companies that combine product sales activities with after-sales technical services. Therefore, this study is expected to provide empirical contributions to organizational behavior research, particularly regarding mechanisms for improving employee performance in the industrial equipment trading sector.

Based on this background, this study aimed to analyze the effects of individual characteristics and work discipline on employee performance, examine the effects of these variables on job satisfaction, and analyze the role of job satisfaction as a mediating variable in the relationships among individual characteristics, work discipline, and employee performance in an air compressor trading company. The findings are expected to contribute to the development of human resource management knowledge and provide practical insights for company management in formulating more effective human resource strategies to improve organizational performance.

METHOD

This research employed a quantitative approach with an explanatory research design. The study aimed to examine the causal relationships among individual characteristics, work discipline, job satisfaction, and employee performance. A quantitative approach was selected because the research focused on hypothesis testing through the analysis of relationships between variables based on numerical data collected from respondents. This method was considered appropriate for examining both direct and indirect effects among variables within the proposed research model (Sugiyono, 2023).

The research was conducted at PT ACI, a company engaged in air compressor trading and services located in Jakarta. The company was selected because its business activities combine product sales with after-sales technical services, requiring employees with strong competencies, discipline, and performance. The unit of analysis consisted of permanent employees involved in the company's operational and supporting activities.

The research population consisted of 70 permanent employees from various divisions, including sales, service engineering, administration, and other supporting functions. Due to the relatively small population size and the researcher's ability to access all members of the population, a census sampling technique was applied. Therefore, all 70 permanent employees were included as research respondents. The use of saturated sampling was consistent with

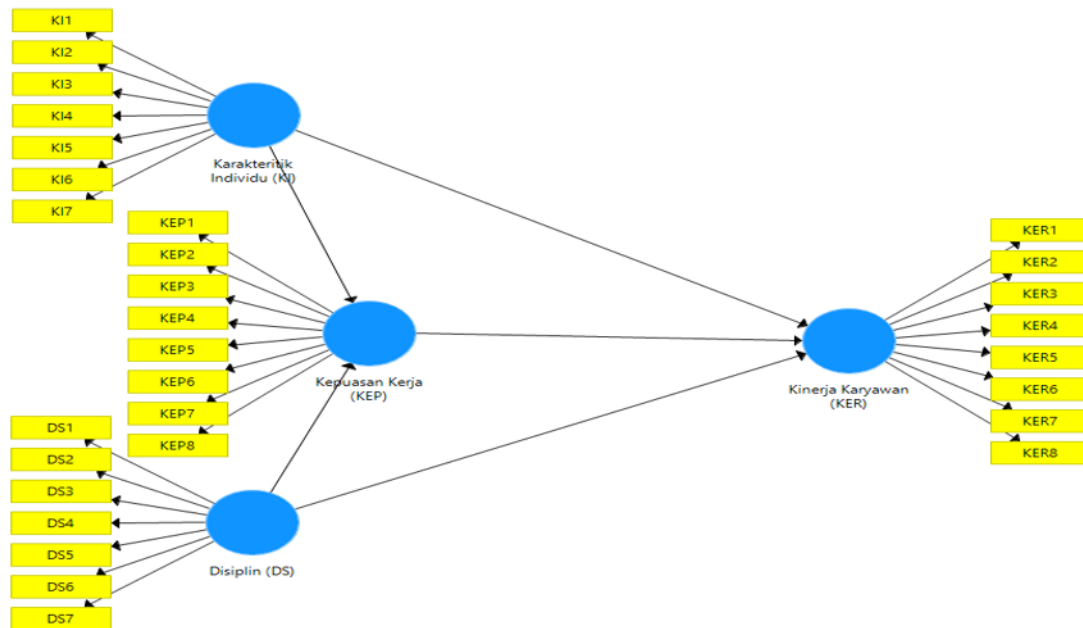


Figure 1. Framework of Thought

RESULTS AND DISCUSSION

Description of Research Object

The object of this research is PT ACI, a company engaged in trading and after sales services. Air compressor products located in Jakarta. The company serves the needs of various industrial sectors, such as manufacturing, automotive, food and beverage, pharmaceutical, electronics, and other industries that utilize compressed air systems in their production processes. The company's business characteristics are not only oriented towards product sales, but also provide technical consulting services, installation, maintenance, and equipment repair so that the quality of human resources is one of the main factors in creating a competitive advantage for the company.

The unit of analysis in this study is all permanent employees of PT ACI who are involved in the company's operational activities. Employees come from various organizational functions, including sales and service divisions, administration, logistics, and other supporting departments. All respondents had sufficient work experience and were therefore deemed capable of providing objective information regarding individual characteristics, work discipline, job satisfaction, and employee performance.

Respondent Characteristics (n=70)

This study used a census sampling technique, allowing the entire population of 70 permanent employees to serve as respondents. This resulted in a 100% response rate, allowing all questionnaires to be processed in the data analysis process.

Respondent characteristics can be presented based on gender, age, and length of service. Presenting respondent characteristics aims to provide an overview of the profile of the respondents who serve as the source of the research data.

Table 1. Distribution of Research Respondents

Characteristics	Category	Frequency (People)	Percentage (%)
Gender	Man	59	84.3
	Woman	11	15.7
	Amount	70	100
Age	20–30 Years	11	15.7
	31–40 Years	26	37.1
	41–50 Years	24	34.3
	>50 Years	9	12.9
	Amount	70	100
Length of work	1–5 Years	18	25.7
	6–10 Years	21	30
	>10 Years	31	44.3
	Amount	70	100

Source: Processed primary data, 2025.

A total of 70 village officials participated in this study. Based on Table 1, the majority of respondents were male (59 people) (84.3%), while 11 respondents were female (15.7%). Based on age group, the majority of respondents were in the 31–40 years age range (26 people) (37.1%), followed by the 41–50 years age group (24 people) (34.3%), 20–30 years age group (11 people) (15.7%), and over 50 years age group (9 people) (12.9%). In terms of length of service, the majority of respondents had worked for more than 10 years (31 people) (44.3%), followed by 6–10 years of service (21 people) (30.0%) and 18 people (25.7%) with a work period of 1–5 years. This composition shows that most respondents have relatively long work experience and are therefore considered capable of providing objective assessments regarding the implementation of technology-based human resource management, digital competencies, and public service performance within the village government environment.

Evaluation Results of Measurement Model (Outer Model)

The first stage of SEM-PLS analysis is to evaluate the measurement model (outer model) to ensure that all indicators are able to measure the latent construct validly and reliably. The evaluation is carried out through tests of convergent validity, construct reliability, and discriminant validity.

1. Convergent Validity

Convergent validity is evaluated based on the outer value loading of each indicator. Hair et al. (2022) stated that an indicator is declared valid if it has a loading value. factor is greater than 0.70, while values between 0.60–0.70 are still acceptable in exploratory research.

The results of the analysis show that most indicators have outer values. The loading values are above 0.70. Several indicators, such as DS4 (0.659) and DS5 (0.691), are still within acceptable limits because they meet the overall construct reliability requirements . Meanwhile, the KI7 indicator has the highest loading value of 0.922, while the KER4 indicator has a loading value of 0.903. These findings indicate that all

indicators adequately represent the constructs being measured, making them suitable for use in the next analysis stage.

2. Construct Reliability

Reliability testing was carried out using Cronbach's values. Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE).

Table 2. Results of Reliability and Construct Validity Testing

Variables	Cronbach's Alpha	Composite Reliability	AVE	Information
Discipline	0.909	0.907	0.584	Reliable and Valid
Individual Characteristics	0.914	0.932	0.664	Reliable and Valid
Job satisfaction	0.933	0.945	0.682	Reliable and Valid
Employee performance	0.951	0.959	0.745	Reliable and Valid

Source: Output SmartPLS 3.0, processed by researchers.

Based on Table 2, it can be seen that all constructs have Cronbach's values . Alpha above 0.70, Composite Reliability was above 0.70, and AVE was greater than 0.50. Thus, all research variables met the requirements for convergent validity and construct reliability, thus declaring the measurement model suitable for testing the structural model.

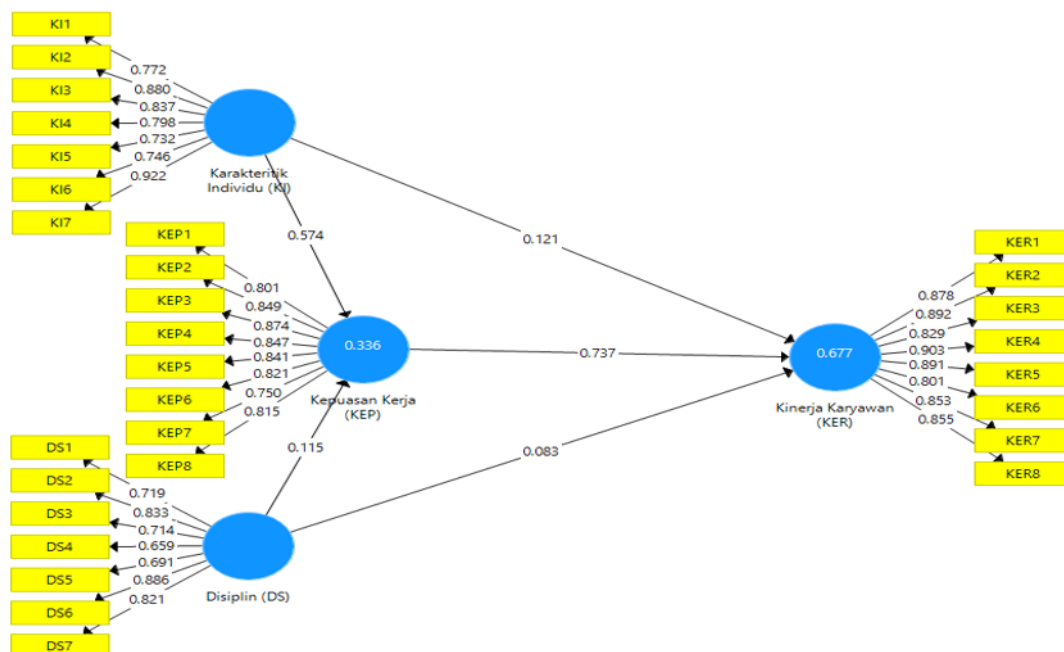


Figure 2. Smart PLS 3.0 Data Processing Results

The significance of the estimated parameters can provide information about the relationships between research variables. The threshold for rejecting and accepting the proposed hypothesis is a probability <0.05 . The table below presents the estimation output for testing the structural model.

Structural Model Evaluation Results (Inner Model)

Evaluation of the structural model is carried out by analyzing the coefficient of determination (R^2) value which shows the ability of exogenous variables to explain endogenous variables.

Table 3. Value of the Coefficient of Determination (R^2)

Endogenous Variables	R^2	Adjusted R^2	Interpretation
Job satisfaction	0.336	0.316	Currently
Employee performance	0.677	0.662	Strong

Source: Output SmartPLS 3.0, processed by researchers.

Value of 0.336 indicates that 33.6% of the variation in job satisfaction can be explained by individual characteristics and work discipline, while 66.4% is influenced by other factors outside the research model.

Meanwhile, the R^2 value of 0.677 indicates that 67.7% of the variation in employee performance can be explained by individual characteristics, work discipline, and job satisfaction. The remaining 32.3% is influenced by other variables not analyzed in this study. Based on Hair's classification, et al. (2022), this value indicates that the research model has strong predictive ability regarding employee performance.

Hypothesis Testing Results

Hypothesis testing was carried out using the bootstrapping procedure in SmartPLS by paying attention to the path coefficient values (Original Sample), T Statistics, and P Values. The relationship between variables is declared significant if the P value < 0.05 .

Table 4. Summary of Hypothesis Testing Results

Relationship between variables	Coefficient	t- statistic	p- value	Decision
Individual Characteristics → Job Satisfaction	0.574	5,851	0	Accepted
Discipline → Job Satisfaction	0.115	0.748	0.045	Accepted*
Individual Characteristics → Employee Performance	0.121	2,029	0.043	Accepted
Discipline → Employee Performance	0.083	0.732	0.464	Rejected
Job Satisfaction → Employee Performance	0.737	7.12	0	Accepted
Individual Characteristics → Job Satisfaction → Employee Performance	0.423	4,808	0	Accepted
Discipline → Job Satisfaction → Employee Performance	0.085	0.714	0.476	Rejected

Source: Output SmartPLS 3.0, processed by researchers.

In general, the test results indicate that five relationships between variables are significant, while two relationships are insignificant. Individual characteristics are proven to have a positive effect on employee job satisfaction and performance, both directly and through job satisfaction as a mediating variable. In contrast, work discipline does not show a significant direct or indirect effect on employee performance, although it has a positive effect on job satisfaction. These results indicate that the improvement in employee performance at PT ACI is more influenced by the quality of individual characteristics and the level of job satisfaction than by work discipline alone.

The Influence of Individual Characteristics on Job Satisfaction

The results of the study indicate that individual characteristics have a positive and significant effect on job satisfaction with a path coefficient of 0.574 and a p-value of 0.000. This indicates that the better the individual characteristics possessed by employees, the higher the level of job satisfaction felt. These findings indicate that individual characteristics are an important capital in forming a positive perception of work. At PT ACI, individual characteristics are not only related to educational background, but also include technical competence regarding air compressor products, communication skills with industrial customers, work experience, and problem-solving skills. Employees who have these abilities tend to feel more confident in completing their work, thus obtaining higher job satisfaction.

The results of this study align with the Resource-Based View (RBV), which states that individual competence is a strategic resource capable of increasing organizational value by improving the quality of human resources. Individuals with high competence will more easily adapt to job demands, gain organizational recognition, and experience satisfaction in carrying out their work. The findings of this study are also consistent with research by Robbins and Judge (2019), which explains that individual abilities, experience, and competence are important factors in increasing job satisfaction. Recent research also shows that individual competence has a positive effect on job satisfaction because it provides self-confidence, self-efficacy, and better career development opportunities.

In the context of PT ACI, individual characteristics are a crucial factor because the company not only sells products but also technical solutions to industrial customers. Therefore, employees with good technical competence and communication skills will more easily meet customer needs, resulting in a more positive work experience. Theoretically, these findings reinforce the view that individual characteristics are important antecedents to job satisfaction. Practically, companies need to improve employee competency through technical training, product certification, communication skills development, and continuous learning programs to continuously improve job satisfaction.

The Influence of Discipline on Job Satisfaction

The research results show that work discipline has a positive influence on job satisfaction. Although the effect is relatively small compared to individual characteristics, these results demonstrate that implementing good discipline can create a more orderly and conducive work environment, thereby increasing employee comfort.

Discipline at PT ACI is realized through compliance with working hours, implementation of Standard Operating Procedures (SOPs), use of standard work equipment, and accuracy in completing work. Consistent implementation of discipline

creates job security, thereby reducing role ambiguity. ambiguity) and increase perceptions of organizational justice.

These findings support Social Exchange Theory, which explains that when organizations enforce rules fairly and consistently, employees respond positively to their work. Discipline is perceived not as mere supervision, but as a mechanism that helps create a professional work environment.

The results of this study are consistent with various studies showing that work discipline can increase job satisfaction by creating an orderly and structured work environment. However, the relatively small effect size indicates that PT ACI employee job satisfaction is more influenced by other factors such as individual competence, relationships with superiors, reward systems, and career development opportunities. The practical implication of this finding is the need for companies to ensure that disciplinary policies are implemented consistently, transparently, and are development-oriented, so that discipline is not seen as punishment, but rather as a work culture that supports comfort and professionalism.

The Influence of Individual Characteristics on Employee Performance

The results of the study indicate that individual characteristics have a positive and significant effect on employee performance with a path coefficient of 0.121 and a p-value of 0.043. Although the direct effect is relatively small, these results indicate that individual qualities still make a significant contribution to improving performance. These findings indicate that technical abilities, work experience, and communication skills possessed by employees can increase productivity, service quality, and the achievement of work targets. In an air compressor trading company, work success is not only determined by the ability to sell products, but also the ability to understand customer needs and provide appropriate technical solutions.

The results of this study reinforce Robbins and Judge's theory that individual abilities are the primary determinant of performance. These findings also support the Resource-Based View concept, which positions human resource competency as an organization's competitive advantage.

The Influence of Discipline on Employee Performance

The results of the study indicate that work discipline does not significantly influence employee performance, with a p-value of 0.464. This finding suggests that compliance with regulations may not necessarily improve performance if it is not accompanied by competence, motivation, or job satisfaction. In the context of PT ACI, most employees have a relatively uniform level of discipline because all activities are regulated through company SOPs. This condition means that discipline is no longer the main differentiating factor in determining performance variations between employees.

This finding differs from several previous studies that stated that discipline directly impacts performance. This difference suggests that the influence of discipline is highly dependent on organizational characteristics. In companies with a strong culture of discipline, performance improvements are more influenced by the quality of competencies and job satisfaction than by compliance with regulations alone. Practically, companies need to combine discipline with competency development programs and reward systems to ensure optimal performance improvements.

The Influence of Job Satisfaction on Employee Performance

The results of the study indicate that job satisfaction is the variable with the strongest influence on employee performance, with a path coefficient of 0.737 and a p- value of 0.000. These findings indicate that employees who are satisfied with their jobs will demonstrate higher productivity, responsibility, service quality, and work commitment. Job satisfaction increases intrinsic motivation, thus encouraging employees to make their best contribution to the organization.

These findings are consistent with Social Exchange Theory, which explains that job satisfaction is a form of psychological reward for fair and supportive organizational treatment. Employees who feel valued will contribute more to the organization. In the context of PT ACI, job satisfaction is reflected in good relationships with superiors, solid teamwork, opportunities for competency development, and recognition for work achievements. These factors are key drivers of improved employee performance.

The Role of Job Satisfaction in Mediating the Influence of Individual Characteristics on Employee Performance

The test results show that job satisfaction successfully partially mediates the relationship between individual characteristics and employee performance with an indirect effect coefficient of 0.423 and a p- value of 0.000. This indicates that individual characteristics not only directly improve performance but also increase job satisfaction, which ultimately strengthens employee performance. In other words, individual competence and abilities will have a greater impact when accompanied by a high level of job satisfaction.

These findings enrich the literature on performance improvement mechanisms through psychological variables and strengthen the role of job satisfaction as a mediating variable in organizational behavior research.

The Role of Job Satisfaction in Mediating the Effect of Discipline on Employee Performance

The results of the study indicate that job satisfaction is unable to mediate the relationship between work discipline and employee performance because the indirect effect is not significant (p- value = 0.476). This finding indicates that the work discipline implemented at PT ACI is not yet strong enough to increase job satisfaction and impact performance improvement. It is likely that discipline has become a minimum standard that must be met by all employees so that the variation is relatively small and is no longer a determining factor in performance differences.

These results provide implications that organizations do not only need to strengthen work discipline, but also need to improve other factors such as competency development, reward systems, leadership, and career development opportunities in order to create job satisfaction that can encourage continuous performance improvement.

CONCLUSION

This study aimed to analyze the effects of individual characteristics and work discipline on employee performance, with job satisfaction as a mediating variable at PT ACI. Based on the results of the analysis using Structural Equation Modeling–Partial Least Squares (SEM-PLS), it was concluded that individual characteristics had positive and significant effects on job satisfaction and employee performance. These findings indicated that technical

competence, work experience, communication skills, and personal characteristics were important factors in increasing job satisfaction and improving employee performance.

Work discipline was found to have a positive effect on job satisfaction, although the effect was relatively weaker compared with individual characteristics. Conversely, work discipline did not have a direct effect on employee performance. These findings suggested that in organizations with established work cultures and relatively strong operational standards, discipline may no longer serve as the primary factor distinguishing employee performance levels.

This study also demonstrated that job satisfaction was the variable with the strongest influence on employee performance. Higher levels of job satisfaction were associated with improved employee performance. Furthermore, job satisfaction partially mediated the relationship between individual characteristics and employee performance, indicating that improvements in employee competencies would have a greater impact when accompanied by increased job satisfaction. However, job satisfaction did not mediate the relationship between work discipline and employee performance because the indirect effect was not statistically significant.

Overall, this study provided an empirical contribution to organizational behavior research, particularly in explaining the mechanism through which employee performance can be improved through individual characteristics and job satisfaction in companies engaged in air compressor trading and technical services.

Based on the findings, companies are advised to prioritize the development of individual characteristics through technical training programs, competency certification, communication skill development, and continuous learning initiatives to ensure that employee capabilities continue to align with evolving business requirements. In addition, companies should strengthen factors that enhance job satisfaction, including fair reward systems, career development opportunities, positive workplace relationships, and supportive work environments.

Although work discipline should be maintained as part of organizational culture, its implementation should not focus solely on regulatory compliance but should also function as a development mechanism that encourages employee motivation and professionalism. Through this approach, discipline can contribute more effectively to improving service quality and overall organizational performance.

This study was limited by its focus on a single company with 70 respondents, which may restrict the generalizability of the findings. In addition, the research model explained only part of the variation in employee performance, suggesting that other factors may also contribute to performance outcomes but were not examined in this study.

Therefore, future research is recommended to expand the research scope by involving multiple organizations and different industrial sectors, using larger sample sizes, and incorporating additional variables such as transformational leadership, organizational culture, organizational commitment, work motivation, employee engagement, and perceived organizational support. These extensions may provide a more comprehensive understanding of the factors influencing employee performance.

REFERENCES

- Akerele, O. O. (2023). The link between motivation and organizational performance: An exploration of factors influencing employee motivation and its impact on organizational success. *International Journal of Business Ethics and Governance*, 6(1).
- Baloch, Q. B., Maher, S., Iqbal, N., Shah, S. N., Sheeraz, M., Raheem, F., & Khan, K. I. (2022). Role of organizational environment in sustained organizational economic performance. *Business Process Management Journal*, 28(1), 131–149.
- Brunner, M., Tripathi, S., Gundolf, K., Bachmann, N., Thienemann, A.-K., Tüzün, A., Pöchringer, S., & Jodlbauer, H. (2025). Enhancing customer satisfaction through digitalization: Past, present and possible future approaches. *Procedia Computer Science*, 253, 2929–2940.
- Bunteng, L. (2022). *Factors Affecting Organizational Performance: A Study on Four Factors Motivation, Ability, Roles, and Organizational Support*.
- Candra, A., Yandri, E., Saiful, R., Uhanto, U., Hilmi, E., Hamja, N., & Ariati, R. (2024). Optimizing compressed air operations for electrical energy savings: a case study in pharmaceutical packaging manufacturing. *Grimsa Journal of Science Engineering and Technology*, 2(2), 76–86.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., & Sarstedt, M. (2022). A primer on partial least squares structural equation modeling (PLS-SEM) (Edisi ke-3). Sage Publications.
- Judijanto, L., Tahir, A., Sunardi, S., Muthmainah, H. N., & Syamsuddin, A. (2024). The Development of Internet of Things (IoT) Technology in the Manufacturing Industry in Indonesia A Literature Review on Implementation and Impact on Operational Efficiency. *Sciences Du Nord Nature Science and Technology*, 1(01), 1–6.
- Kosasih, O., Hidayat, K., Hutahayan, B., & Sunarti. (2024). Achieving sustainable customer loyalty in the petrochemical industry: the effect of service innovation, product quality, and corporate image with customer satisfaction as a mediator. *Sustainability*, 16(16), 7111.
- Mohamad, B. A. (2022). Industrial equipments. URL: <https://doi.org/10.13140/RG.2.16068.71043>, 4.
- Naini, N. F., Santoso, S., Andriani, T. S., Claudia, U. G., & Nurfadillah, N. (2022). The effect of product quality, service quality, customer satisfaction on customer loyalty. *Journal of Consumer Sciences*, 7(1), 34–50.
- Oguna, E. M., & Alaob, M. M. (2023). *Impact of Quality Customer Service Delivery on Customer Satisfaction and Loyalty*.
- Permana, T. W., Yudoko, G., & Prasetyo, E. A. (2023). Forecasting the potential output and growth of the manufacturing industry: a case study of Indonesia's manufacturing sector. *Jurnal Ekonomi & Studi Pembangunan*, 24(2), 368–389.
- Robbins, S.P., & Judge, T.A. (2022). **Organizational behavior** (Edisi ke-19). Pearson.
- Rubio-Valdehita, S., Díaz-Ramiro, E. M., & López-Núñez, M. I. (2023). What does the feeling of job success depend on? Influence of personal and organizational factors. *Societies*, 13(6), 140.
- Sarstedt, M., Ringle, C.M., Cheah, J.H., Ting, H., Moisescu, O.I., & Radomir, L. (2020). Pemeriksaan ketahanan model struktural dalam PLS-SEM. **Tourism Economics**, 26(4), 531–554. <https://doi.org/10.1177/1354816618823921>
- Schaufeli, W.B. (2021). **Engaging leadership**: Bagaimana cara meningkatkan keterikatan kerja? **Frontiers in Psychology**, 12, 754556. <https://doi.org/10.3389/fpsyg.2021.754556>
- Sugiyono. (2023). Metode penelitian kuantitatif, kualitatif, dan R&D (Edisi ke-2). Alfabeta.
- Torlak, N.G., Demir, A., & Budur, T. (2021). Hubungan antara pengambilan keputusan, kepemimpinan, dan kinerja karyawan. *Management Science Letters*, 11(6), 1741–1750.

- Suseno, B. D., Sugianto, E., Purnamasari, E., & Supriadi, A. (2023). Analysis of the application of operational management in manufacturing companies in Bandung city: The effect of production efficiency, product innovation, and customer satisfaction on financial performance. *West Science Journal Economic and Entrepreneurship*, 1(11), 535–546.
- Tamilselvi, K. (2025). Compressor applications and comparative analysis in process industries. *Compressors and Blowers: Maintenance, Practical Guidance, Energy-Efficient Technologies*, 13, 121.