

Training, Work Discipline, and Employee Performance: Evidence from a Service Firm in Jakarta

Watriningsih¹, Firda Alifianti², Yudhistira Adwimurti³, Fransisca Hanita Rusgowanto⁴

^{1,2,3}Faculty of Economic and Business, Prof. Dr. Moestopo (Beragama) University, Jakarta, Indonesia

⁴Faculty of Accounting & Finance, Bina Nusantara University, Jakarta, Indonesia

ARTICLE INFO

Article history:

Received: February 9th, 2026

Revised: March 11th, 2026

Accepted: April 27th, 2026

Keywords:

Training;
Work Discipline;
Employee Performance;
Human Capital Theory;
Service Sector;
Indonesia

JEL:

M53; M54; J24; M12; L84

ABSTRACT

This study examines the independent and simultaneous associations of training and work discipline with employee performance at PT Idena Nusa Cipta, a service firm in Jakarta. Using a quantitative cross-sectional design and a saturated sample of 49 employees, the study analyzes questionnaire data with simple and multiple linear regression after classical assumption testing. The revised reporting shows that training and work discipline are each positively and significantly associated with employee performance, while the joint model explains a substantial share of the observed variance. The manuscript therefore positions training and discipline as complementary HR mechanisms rather than as isolated managerial tools. Because the study is single-site and cross-sectional, the findings should be interpreted as context-bound associations rather than broad causal claims. Future studies should test the model in multiple firms and include additional predictors such as motivation, leadership, and organizational culture.

Corresponding Author:

Watriningsih,
Faculty of Economic and Business,
Prof. Dr. Moestopo (Beragama) University,
Hang Lekir 1st No 8th Road, Gelora Senayan, Jakarta Pusat 10270, DKI Jakarta, Indonesia.
Email: watriningsih_ayu@dsn.moestopo.ac.id

1. INTRODUCTION

The COVID-19 pandemic altered training delivery, supervision routines, and everyday work discipline across many organizations. In service settings, these changes were especially consequential because employee performance depends heavily on day-to-day consistency, responsiveness, and coordination (Narayanamurthy & Tortorella, 2021; Mikołajczyk, 2022).

Employee performance remains one of the most consequential organizational outcomes because strategic goals are realized through employees' daily behaviors, task completion, adaptability, and cooperative work. For that reason, organizations commonly rely on both capability-building

mechanisms and behavioral-control mechanisms to sustain performance (Koopmans et al., 2011).

Recent international research supports the continuing relevance of employee development for job outcomes. Evidence from frontline hotel employees shows that training and development are significantly associated with work performance, while broader reviews also link employee development to engagement and job performance dynamics. Related service-sector evidence further indicates that employee performance is shaped by integrated organizational practices rather than single isolated factors (Hosen et al., 2024; Kwon et al., 2024; Al-Romeedy et al., 2025; Biswakarma & Subedi, 2025).

The practical problem addressed in this study arises from PT Idena Nusa Cipta, a service firm in Central

Jakarta. Company records for October 2021 to March 2022 show recurring attendance, punctuality, and task-completion problems, suggesting that both training reinforcement and work discipline warrant closer examination.

Prior studies have generally reported positive links between training and employee performance, and between work discipline and employee performance. However, much of the evidence remains fragmented: some studies test only one predictor, and many are situated outside smaller private service firms. The present study therefore examines both predictors simultaneously in one organizational setting while keeping the interpretation appropriately context-bound (Julianry et al., 2017; Safitri, 2019; Arisanti et al., 2019; Setyawati et al., 2018).

This study investigates whether training and work discipline are positively and significantly associated with employee performance at PT Idena Nusa Cipta. Specifically, the study evaluates the independent relationship of each predictor with employee performance and their simultaneous relationship in a single regression framework.

The conceptual framework is presented in Section 2.5.

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

2.1 Theoretical Foundations

This study draws primarily on human capital theory and a compliance-based behavioral perspective. Human capital theory treats employee knowledge and skills as productive assets, making training a direct investment in work capability. The compliance perspective complements this by explaining why performance also depends on adherence to time rules, procedures, and behavioral expectations (Aguinis & Kraiger, 2009; Isvandiani & Idris, 2018; Simarmata et al., 2021).

2.2 Training and Employee Performance

Training is understood here as a structured short-cycle process through which employees acquire job-relevant knowledge and skills. The performance pathway is straightforward: better training should improve competence, task understanding, and confidence in job execution. Recent evidence in hospitality and service-related work also suggests that employee development practices are linked to work performance directly and through engagement-related mechanisms (Khurotin & Afrianty, 2018; Hosen et al., 2024; Kwon et al., 2024).

H1: Training is positively and significantly associated with employee performance.

2.3 Work Discipline and Employee Performance

Work discipline refers to employees' willingness to comply with organizational time rules, work procedures, behavioral expectations, and other company regulations. Discipline is important because competence alone does not guarantee performance;

employees must also consistently convert capability into timely and responsible work behavior (Arisanti et al., 2019; Simarmata et al., 2021).

H2: Work discipline is positively and significantly associated with employee performance.

2.4 Simultaneous Effect of Training and Work Discipline

Training and work discipline are expected to operate as complementary rather than competing mechanisms. Training broadens the employee's competence set, whereas discipline helps ensure that competence is used consistently in everyday work routines. The theoretical expectation is therefore that the two predictors jointly explain employee performance better than either one alone (Aguinis & Kraiger, 2009; Salas et al., 2012).

H3: Training and work discipline are simultaneously and significantly associated with employee performance.

2.5 Conceptual Framework

Figure 1 summarizes the analytical model used in this study. Training (X1) and Work Discipline (X2) are specified as independent variables associated with Employee Performance (Y).

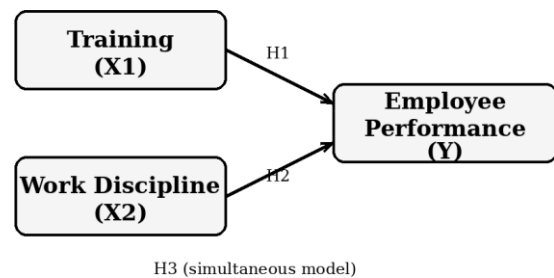


Figure 1. Conceptual framework

3. METHODOLOGY

3.1 Research Design

This study uses a quantitative cross-sectional design to examine the associations of training and work discipline with employee performance. The design is appropriate for testing relationships among variables using survey data, but it does not establish strong causal direction (Setia, 2016).

3.2 Research Setting, Population, and Sample

The research was conducted at PT Idena Nusa Cipta, a service-sector firm headquartered at Astra Tower, 15th Floor, Jalan Jenderal Sudirman, Central Jakarta. Data collection took place from March to August 2022. The target population comprised all 49 employees, so a saturated-sampling approach was used. The boundary of inference is therefore limited to this firm-level setting.

3.3 Data Collection

Primary data were collected through a structured self-administered questionnaire using a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). Secondary data, including training records and absenteeism documentation, were used to contextualize the survey findings.

3.4 Measurement Instruments

The operationalization of all three constructs is summarized in Table 1. Training indicators were adapted from Wahyuningsih (2019), work-discipline indicators from Arisanti et al. (2019), and employee-performance indicators from Setyawati et al. (2018).

Table 1. Operationalization of Research Variables

Variable	Conceptual Definition	Indicators	Items	Source
Training	A short-cycle, structured process through which employees acquire technical knowledge and skills toward specific operational objectives (Khurotin & Afrianty, 2018)	1. Training objectives 2. Training materials 3. Training methods 4. Participant qualifications 5. Trainer qualifications	6 items (Likert 1-5)	Wahyuningsih (2019)
Work Discipline	Employees' voluntary initiative to comply with all organizational rules and behavioral standards, accepting prescribed sanctions for violations (Arisanti et al., 2019; Simarmata et al., 2021)	1. Adherence to time rules 2. Adherence to company regulations 3. Adherence to behavioral rules 4. Adherence to other regulations	5 items (Likert 1-5)	Arisanti et al. (2019)
Employee Performance	Work output evaluated in quality and quantity produced by an employee in executing assigned responsibilities within a designated period (Setyawati et al., 2018)	1. Quantity of work 2. Quality of work 3. Independence 4. Initiative 5. Adaptability 6. Cooperation	7 items (Likert 1-5)	Setyawati et al. (2018)

Source: adapted from various journals.

3.5 Analytical Model and Reporting Approach

The study estimated two simple linear regression models and one multiple linear regression model. To maintain internal consistency between the text and the archived statistical outputs, the revised manuscript emphasizes standardized coefficients, test statistics, significance levels, and model-fit indices rather than reproducing unverified printed prediction equations. The generic models are: (1) $Y = a + b_1X_1 + e$; (2) $Y = a + b_2X_2 + e$; and (3) $Y = a + b_1X_1 + b_2X_2 + e$. Where Y = employee performance, X_1 = training, X_2 = work discipline, a = constant, b = regression coefficient, and e = error term.

3.6 Validity and Reliability Testing

Instrument validity was examined through corrected item-total correlation using the critical r -table value of 0.282 ($df = 47$; $\alpha = 0.05$). All retained items

exceeded that threshold. Reliability was evaluated using Cronbach's alpha. The resulting values - 0.548 for Training, 0.543 for Work Discipline, and 0.492 for Employee Performance - indicate weak-to-moderate internal consistency, so the instrument is adequate for exploratory firm-level analysis but should not be overclaimed as highly reliable (Tavakol & Dennick, 2011).

3.7 Classical Assumption Testing

Normality was assessed using the one-sample Kolmogorov-Smirnov test, multicollinearity using tolerance and VIF, and heteroscedasticity using the Glejser test. The revised manuscript retains these diagnostics because the archived outputs indicate that the main regression assumptions were sufficiently met for linear-model reporting (Ghasemi & Zahediasl, 2012; O'Brien, 2007; Glejser, 1969).

4. RESULTS

4.1 Respondent Profile

The sample consisted of 49 employees. Female employees represented 53.1% ($n = 26$) and male employees 46.9% ($n = 23$). The largest age group was 36-46 years (30.6%; $n = 15$). Diploma holders formed the largest education group (32.7%; $n = 16$), followed by master's degree holders (26.5%; $n = 13$).

Table 2. Respondent Profile

Category	Group	Frequency (n)	Percentage (%)
Gender	Male	23	46.9
	Female	26	53.1
Age	< 24 years	11	22.4
	25-35 years	11	22.4
	36-46 years	15	30.6
	> 46 years	12	24.5
Education	Senior High School (SMA)	11	22.4
	Diploma	16	32.7
	Bachelor's (S1)	9	18.4
	Master's (S2)	13	26.5
	Total	—	49

Source: primary data processed (2022).

4.2 Descriptive Statistics

Table 3 reports the descriptive statistics for the three constructs. All skewness and kurtosis values fall within commonly accepted screening ranges, suggesting no severe distributional abnormality at the descriptive level.

Table 3. Descriptive Statistics

Statistic	Training	Work Discipline	Employee Performance
N	49	49	49
Mean	20.592	21.674	21.265
Median	21.000	22.000	21.000
Mode	24.00	22.00	22.00
Std.	3.570	3.502	3.232
Deviation			
Skewness	-0.412	-0.198	-0.199
Std. Error	0.340	0.340	0.340
Skewness			
Kurtosis	-0.663	0.257	0.412

Std. Error	0.668	0.668	0.668
Kurtosis			

Source: IBM SPSS v.25 outputs (2022).

4.3 Instrument Validity and Reliability

All retained items exceeded the validity threshold ($r\text{-count} > 0.282$). Nevertheless, the alpha coefficients are only modest, which means that the measurement model should be read as acceptable for exploratory firm-level analysis rather than as a strong instrument benchmark.

4.4 Classical Assumption Diagnostics

The assumption diagnostics reported in Table 4 indicate normal residual distributions at the variable-screening stage, no serious multicollinearity, and no detected heteroscedasticity problem in the archived model outputs.

Table 4. Classical Assumption Diagnostics Summary

Test	Variable	Statistic	Value	Threshold	Result
Normality (K-S)	Training	Asym p. Sig.	0.091	> 0.05	Normal
	Work Discipline	Asym p. Sig.	0.200	> 0.05	Normal
	Performance	Asym p. Sig.	0.200	> 0.05	Normal
Multicollinearity	Training	Tolerance / VIF	0.79 / 1.021	> 0.10 / 5.00	No issue
	Work Discipline	Tolerance / VIF	0.79 / 1.021	> 0.10 / 5.00	No issue
	Performance	Tolerance / VIF	0.263 / 3.799	> 0.05 / 5.00	Heteroscedasticity
Heteroscedasticity	Training	Sig. (Glejs)	0.63	> 0.05	Heteroscedasticity
	Work Discipline	Sig. (Glejs)	0.09	> 0.05	Heteroscedasticity

Source: IBM SPSS v.25 outputs (2022).

4.5 Hypothesis Testing

4.5.1 Effect of Training on Employee Performance

Training shows a positive and statistically significant association with employee performance. The standardized coefficient is 0.656 with $t = 5.953$ and $p = 0.000$. Model fit is moderate ($R^2 = 0.430$; Adjusted $R^2 = 0.418$), indicating that training alone explains 43.0% of the observed variance in employee performance.

Table 5. Training and employee performance

Variable	β	t	p	Decision
Training	0.656	5.953	0.000	Supported
R^2	0.430			
Adj. R^2	0.418			
SEE	3.862			

Source: IBM SPSS v.25 outputs (2022).

4.5.2 Effect of Work Discipline on Employee Performance

Work discipline also shows a positive and statistically significant association with employee performance. The standardized coefficient is 0.604 with $t = 5.200$

and $p = 0.000$. The model explains 36.5% of the observed variance in employee performance ($R^2 = 0.365$; Adjusted $R^2 = 0.352$) (Arisanti et al., 2019; Setyawati et al., 2018).

Table 6. Work discipline and employee performance

Variable	β	t	p	Decision
Discipline	0.604	5.200	0.000	Supported
R^2	0.365			
Adj. R^2	0.352			
SEE	4.075			

Source: IBM SPSS v.25 outputs (2022).

4.5.3 Simultaneous Effect of Training and Work Discipline

When training and work discipline are entered simultaneously, both remain statistically significant. The standardized beta for training is 0.581 ($t = 7.061$, $p = 0.000$), while work discipline records a standardized beta of 0.521 ($t = 6.331$, $p = 0.000$). Overall model fit is strong relative to the single-predictor models ($F = 52.494$, $p = 0.000$; $R^2 = 0.695$; Adjusted $R^2 = 0.682$).

Table 7. Joint model of training and work discipline on employee performance

Variable	β	t	p	Decision
Training	0.581	7.061	0.000	Supported.
Discipline	0.521	6.331	0.000	Supported.
R^2	0.695			
Adj. R^2	0.682			
SEE	2.853			
F-test	52.494			
F-Prob			0.000	

Source: IBM SPSS v.25 outputs (2022).

Table 8. Hypothesis Testing Summary

Hyp.	Stat.	p	Fit	Decision
H1	$\beta=0.656$; $t=5.953$	0.000	$R^2=0.430$	Supported
H2	$\beta=0.604$; $t=5.200$	0.000	$R^2=0.365$	Supported
H3	$F=52.494$	0.000	Adj. $R^2=0.682$	Supported

Source: IBM SPSS v.25 outputs (2022).

5. DISCUSSION

5.1 The Effect of Training on Employee Performance

The revised results indicate that training is positively and significantly associated with employee performance in the observed firm. This pattern is consistent with the argument that employee development strengthens competence and supports better execution of work tasks. It also aligns with more recent discussions of employee development and engagement as mutually reinforcing HR mechanisms (Khurotin & Afrianty, 2018; Hosen et al., 2024; Kwon et al., 2024).

Because the design is cross-sectional and limited to one firm, the study does not establish that training causes performance improvements in a strict temporal sense. Instead, it provides evidence that firms with stronger observed training conditions also report stronger employee performance outcomes (Setia, 2016).

5.2 The Effect of Work Discipline on Employee Performance

Work discipline also shows a positive and statistically significant association with employee performance. Substantively, this means that employees' compliance with rules, punctuality norms, and work procedures is linked to more consistent performance outcomes. This interpretation remains close to the original HRM logic while avoiding overstatement (Arisanti et al., 2019; Simarmata et al., 2021).

5.3 The Simultaneous Effect of Training and Work Discipline

The joint model is the most informative result in this study. Training and work discipline remain statistically significant when entered together, and the combined explanatory power is materially higher than in either single-predictor model. This supports the view that capability development and behavioral consistency operate as complementary organizational mechanisms (Aguinis & Kraiger, 2009; Salas et al., 2012).

For PT Idena Nusa Cipta, the implication is that performance problems should not be addressed by training alone or discipline alone. A more integrated HR response is likely to be more effective in this specific organizational context.

5.4 Practical Implications

Managerially, the findings suggest that PT Idena Nusa Cipta should avoid treating training and discipline as separate silos. Training programs should be aligned with actual job requirements, while disciplinary procedures should be applied consistently and transparently. Combined implementation is likely to support stronger employee performance than one-sided intervention (Wahyuningsih, 2019; Arisanti et al., 2019; Simarmata et al., 2021).

6. CONCLUSION

6.1 Conclusion

This study examined whether training and work discipline are associated with employee performance at PT Idena Nusa Cipta. Using a census of 49 employees and linear regression analysis, the revised manuscript finds support for all three hypotheses in associative terms: training is positively related to employee performance, work discipline is positively related to employee performance, and both predictors are jointly related to employee performance in the archived model outputs.

6.2 Implications

6.2.1 Theoretical and Methodological Implications

Theoretically, the study supports the usefulness of combining human capital theory with a compliance-based behavioral lens when examining employee performance. Methodologically, it also illustrates the value of cautious reporting: with a small single-firm

census and modest reliability coefficients, the contribution is best positioned as contextual and exploratory rather than broadly generalizable (Aguinis & Kraiger, 2009; Tavakol & Dennick, 2011).

6.2.2 Practical Implications

For managers, the revised manuscript reinforces one practical message: employee performance in service firms should be managed through integrated HR practices. Training without discipline may not be converted into consistent daily work behavior, while discipline without development may limit capability growth (Aguinis & Kraiger, 2009; Salas et al., 2012; Simarmata et al., 2021).

6.3 Limitations and Future Research Directions

This study has four main limitations. First, the cross-sectional design does not establish temporal order or causality. Second, the single-site setting limits external validity. Third, the modest reliability coefficients indicate that future studies should refine the instrument. Fourth, additional predictors such as motivation, leadership, organizational culture, and productivity-related mediators should be considered in broader multi-firm designs (Setia, 2016; Tavakol & Dennick, 2011).

REFERENCES

- Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451–474. <https://doi.org/10.1146/annurev.psych.60.1107.07.163505>
- Arisanti, K. D., Santoso, A., & Wahyuni, S. (2019). Pengaruh motivasi kerja dan disiplin kerja terhadap kinerja karyawan pada PT Pegadaian (Persero) Cabang Nganjuk. *JIMEK: Jurnal Ilmiah Mahasiswa Ekonomi*, 2(1), 101–118. <https://doi.org/10.30737/jimek.v2i1.427>
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: A guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, 10(2), 486–489. <https://doi.org/10.5812/ijem.3505>
- Glejser, H. (1969). A new test for heteroskedasticity. *Journal of the American Statistical Association*, 64(325), 316–323. <https://doi.org/10.1080/01621459.1969.10500976>
- Isvandari, A., & Idris, B. A. (2018). Pengaruh kepemimpinan dan disiplin kerja terhadap kinerja karyawan pada PT Central Capital Futures Cabang Malang. *Jurnal Ilmiah Bisnis dan Ekonomi Asia*, 12(1), 17–22. <https://doi.org/10.32812/jibeka.v12i1.7>
- Julianry, A., Syarief, R., & Affandi, M. J. (2017). Pengaruh pelatihan dan motivasi terhadap kinerja karyawan serta kinerja organisasi

- Kementerian Komunikasi dan Informatika. *Jurnal Aplikasi Bisnis dan Manajemen*, 3(2), 236–245. <https://doi.org/10.17358/jabm.3.2.236>
- Jumawan, J., & Mora, M. T. (2018). Pengaruh pelatihan dan pengembangan karier terhadap kinerja karyawan perusahaan korporasi. *Jurnal Riset Manajemen dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, 3(3), 343–352. <https://doi.org/10.36226/jrmb.v3i3.153>
- Khurotin, N., & Afrianty, T. W. (2018). Analisis pelatihan dan pengembangan sumber daya manusia di PT Beon Intermedia Cabang Malang. *Jurnal Administrasi Bisnis*, 64(1), 195–203. <https://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/view/2746>
- Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet, H. C. W., & van der Beek, A. J. (2011). Conceptual frameworks of individual work performance: A systematic review. *Journal of Occupational and Environmental Medicine*, 53(8), 856–866. <https://doi.org/10.1097/JOM.0b013e318226a763>
- Mikołajczyk, K. (2022). Changes in the approach to employee development in organisations as a result of the COVID-19 pandemic. *European Journal of Training and Development*, 46(5/6), 544–562. <https://doi.org/10.1108/EJTD-12-2020-0171>
- Narayanamurthy, G., & Tortorella, G. (2021). Impact of COVID-19 outbreak on employee performance: Moderating role of industry 4.0 base technologies. *International Journal of Production Economics*, 234, 108075. <https://doi.org/10.1016/j.ijpe.2021.108075>
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673–690. <https://doi.org/10.1007/s11135-006-9018-6>
- Safitri, D. E. (2019). Pengaruh pelatihan terhadap kinerja karyawan. *Jurnal Dimensi*, 8(2), 240–248. <https://doi.org/10.33373/dms.v8i2.2154>
- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest*, 13(2), 74–101. <https://doi.org/10.1177/1529100612436661>
- Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. <https://doi.org/10.4103/0019-5154.182410>
- Setyawati, N. W., Aryani, N. A., & Ningrum, E. P. (2018). Stres kerja dan disiplin kerja terhadap kinerja karyawan. *Jurnal Riset Manajemen dan Bisnis (JRMB) Fakultas Ekonomi UNIAT*, 3(3), 405–412. <https://doi.org/10.36226/jrmb.v3i3.158>
- Simarmata, H. M. P., Saragih, D. Y., & Panjaitan, N. J. (2021). Pengaruh disiplin kerja terhadap kinerja pegawai di PT Bridgestone Pondok Bandar Jambu Kabupaten Simalungun. *Jurnal Ekonomi dan Bisnis (EK&BI)*, 4(1), 403–409. <https://doi.org/10.37600/ekbi.v4i1.248>
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>
- Wahyuningsih, S. (2019). Pengaruh pelatihan dalam meningkatkan produktivitas kerja karyawan. *Warta Dharmawangsa*, 13(2). <https://doi.org/10.46576/wdw.v0i60.413>
- Biswakarma, G., & Subedi, K. (2025). The mediating role of employee engagement on the relationship between learning culture and employee performance in service sector. *The Learning Organization*, 32(2), 259–281. <https://doi.org/10.1108/TLO-09-2023-0178>
- Al-Romeedy, B. S., El-bardan, M. F., & Badwy, H. E. (2025). How is employee performance affected by employer branding in tourism businesses? Mediation analysis. *Journal of Hospitality and Tourism Insights*, 8(2), 790–809. <https://doi.org/10.1108/JHTI-05-2024-0418>
- Kwon, K., Jeong, S., Park, J., & Yoon, S. W. (2024). Employee development and employee engagement: a review and integrated model. *Career Development International*, 29(2), 169–184. <https://doi.org/10.1108/CDI-04-2023-0117>
- Hosen, S., Hamzah, S. R., Ismail, I. A., Alias, S. N., Aziz, M. F. A., & Rahman, M. M. (2024). Training & development, career development, and organizational commitment as the predictor of work performance. *Heliyon*, 10(1), e23903. <https://doi.org/10.1016/j.heliyon.2023.e23903>