
Business, Economics, Law, Communication, and Social Sciences (BELACOSS)

Scholarly Scientific Journal

ISSN (Online): 3089-9001, ISSN (Print):

<https://journal.arepublisher.com/index.php/belacoss>

The Effect of Work Discipline, Teamwork and Work Stress on the Work Productivity of Employees at PT. Nadi Digital Indonesia

Fina Nuraini^{1*)}; Mochamad Rizki Sadikin²⁾

¹⁾ finainuraini30@gmail.com, Mercu Buana University, Indonesia

²⁾ mochamad.rizki@mercubuana.ac.id, Mercu Buana University, Indonesia

*) Corresponding Author

ABSTRACT

This study aims to analyse the influence of work discipline, teamwork, and work stress regarding staff performance in PT. Nadi Digital Indonesia. The method used is quantitative causal with a saturated sample of 45 permanent employees. Main information was collected via surveys, whereas supplementary data was obtained from literature studies. The analysis used SmartPLS 4.0 with outer model and inner model tests. Findings show that adherence to workplace rules does not influence productivity, teamwork and work stress has a significant influence on productivity. Findings show that adherence to workplace rules does not influence productivity.

Keywords: Work Productivity; Work Discipline; Teamwork; Work Stress.

Submitted: 15-07-2025

Revised: 21-08-2025

Accepted: 26-08-2025

Article Doi:

http:

INTRODUCTION

The acceleration of globalisation has triggered the development of digital culture and given rise to new business models such as digital agencies that combine marketing and creativity. To compete in this industry, companies need high-quality human resources (HR) as their main asset for success. Human resources *may be described as an assembly of persons* who play strategic roles within an organisation, with diverse backgrounds in terms of education, skills, experience, attitudes, character, life goals, and motivation levels (Sadikin, 2023). HR with superior work quality tends to contribute positively to work productivity.

Productivity is the ratio between the results achieved (output) and the total resources used (input), which is related to a productive mindset, including motivational attitude, discipline, creativity, innovation, dynamism, professionalism, and a spirit of (Sedarmayanti, 2018). Employee productivity is considered achieved when individuals are able to perform their tasks to the fullest and demonstrate effective work performance, thereby producing goods or services optimally.

Every company undoubtedly wants its employees to achieve good productivity for the company. According to Wijaya dan Manurung (2021), *a contributing element that may influence work productivity is strict work discipline*. If the company relies solely on individual efforts, its goals will not be achieved excellently. This means that working together as a team can create better and more effective results (Hasibuan, 2022). However, in achieving good goals and results, the company will continue to ensure that every employee works well and carefully, which will cause several obstacles, one of which is work stress.

PT. Nadi Digital Indonesia is one of the digital agencies in Jakarta with 45 permanent employees. The company focuses on digital advertising and provides various services to support its clients' digital marketing needs. Referring to the figures shown in Table 1, the data shows that every month there are employees who do not comply with the established working hours. This reflects a lack of time discipline, which has the potential to reduce work productivity at PT. Nadi Digital Indonesia.

Tabel 1 Data on Late Arrival and Early Departure Employees of PT. Nadi Digital Indonesia

No	Month	Number of Employees	Working Days	National Holidays	Late Arrival/ Employee	Early Departure/ Employee
1	November (2023)	45	22	0	14	11
2	December (2023)	45	20	1	17	27
3	January (2024)	45	22	1	18	3
4	February (2024)	45	19	3	13	17
5	March (2024)	45	18	3	17	2
6	April (2024)	45	22	2	18	1

Source: PT. Nadi Digital Indonesia

Attendance data that records the frequency of tardiness and early departures can be an indicator of work discipline that affects employee productivity. Attendance is not only administrative in nature, but also reflects responsibility and commitment to work. A study Irfan (2023) shows a significant correlation between attendance and work discipline, which impacts productivity. Therefore, attendance data can be used to assess the level of employee discipline at PT. Nadi Digital Indonesia.

The topic of discussion in this article seeks to evaluate the impact of workplace discipline,

teamwork, and work stress on the productivity of employees at PT. Nadi Digital Indonesia. This study is also related to Sustainable Development Goal (SDG) 8, Decent Work and Economic Growth, which emphasises the improvement of labour productivity as part of sustainable economic development.

LITERATURE REVIEW

Human Resource Management

This management consists of six elements (6M), namely people, money, materials, machines, and market (Hasibuan, 2022). According to Hasibuan (2022), HRM is the discipline and practice of overseeing employment relationships and duties to optimise corporate, staff, and societal objectives. The element of HRM is people who are the workforce in the company.

Work Productivity

According to Hasibuan (2022), productivity reflects the proportion of results to resources, where the output must have added value and better work techniques. Meanwhile, according to Sutrisno (2019), productivity reflects a mindset of continual improvement in life quality from past to present to future.

Work Discipline

Work discipline, according to Sutrisno (2019), refers to a person's voluntary preparedness to follow and adhere to the norms and regulations in their surroundings. Meanwhile, according to Hasibuan (2022), discipline means the conscious agreement and intent of staff to follow all regulations and norms within an organisation. Awareness is an attitude where someone voluntarily follows all rules and is aware of their duties and responsibilities, so they will follow/do all their tasks well without being forced (Hasibuan, 2022).

Teamwork

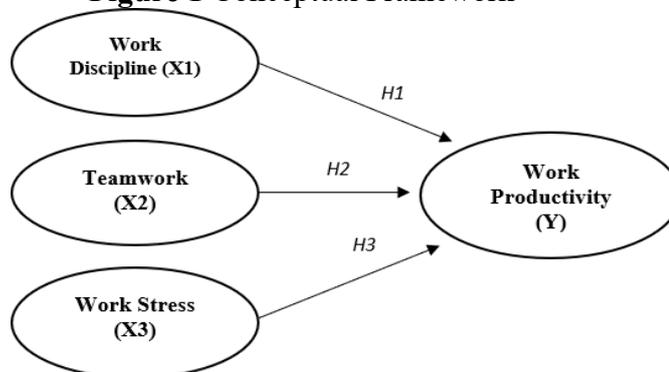
Teamwork refers to a collective of individuals with diverse skills, expertise, and histories working jointly for a common purpose in one or more activities (Bahtiar, 2023). Teamwork is an action that we must build among employees, because within an organisation, there are always common goals, so employees can work together to achieve those goals (Hidayat, 2021).

Work Stress

Work stress is a state of strain influencing emotional, cognitive, and physical well-being (Hasibuan, 2022). Job stress refers to the tension felt by staff when handling their duties (Sinambela, 2016). Work stress is an individual's feelings towards work that are related to violence, tension, anxiety, worry

y, emotional exhaustion, and pressure (Hermawan, 2022).

Figure 1 Conceptual Framework



Description:

1. Predictor variables, with values unaffected by others, are denoted by the sign (X), including:
X1: Work Discipline
X2: Teamwork
X3: Work Stress
2. The Dependent variables are variables whose values depend on other variables. These variables are denoted by the symbol (Y), namely:
Y: Work Productivity

METHOD

Time and Place Research

The study commenced by recognising current issues, defining them, and collecting foundational concepts to support each parameter. Next, data collection methods were prepared, instruments were prepared, data was processed, and the results were written up in a report, until the overall results were presented. The study was carried out starting from April 2024 to April 2025. The research location was PT. Nadi Digital Indonesia, located at Jl. Meruya Ilir No. 88, Kb. Jeruk, West Jakarta. This paper examined the ways in which employee discipline, teamwork, and work stress affect the productivity of PT. Nadi Digital Indonesia employees.

Research Design

The study applies a quantitative cause–effect design, which is a research method that tests hypotheses related to the influence between variables and other variables. A quantitative approach may be described as an investigative approach grounded in positivist philosophy, aimed at examining a certain group, collect data using data collection tools, and process results numerically/statistically, to verify pre-determined hypotheses (Sugiyono, 2022). The objective of this study seeks to identify the effect of Work Discipline, Teamwork, and Work Stress on the Work Productivity of Employees at PT. Nadi Digital Indonesia.

Measurement Scale

The measurement scale used in this study is the Likert scale. The Likert scale is a scale used to measure the attitudes, opinions, and perceptions of an individual or group of individuals regarding social phenomena.

Population and Sample

The population refers to the overall set of items/persons with specified traits chosen by the investigator for study and inference (Sugiyono, 2022). The population used in this study was all 45 permanent employees of PT. Nadi Digital Indonesia. A sample is a subset of the population which shares the same characteristics as the population (Sugiyono, 2022). The sample applied in this research is a complete enumeration, in which all 45 permanent employees of PT. Nadi Digital Indonesia were included as the sample. Saturated sampling refers to a method in which every element of the population is included as the sample (Sugiyono, 2022).

Data Analysis Method

In this study, data analysis used Structural Equation Modelling (SEM) with a Partial Least Square (PLS) approach. According to Ghazali (2021), the PLS method can explain underlying variables (indirectly observable) and assess them through indicators. PLS aims to identify the best predictive linear model in the dataset. While PLS is applicable for theory validation, it may also clarify the presence or absence of associations among hidden variables.

RESULTS AND DISCUSSION

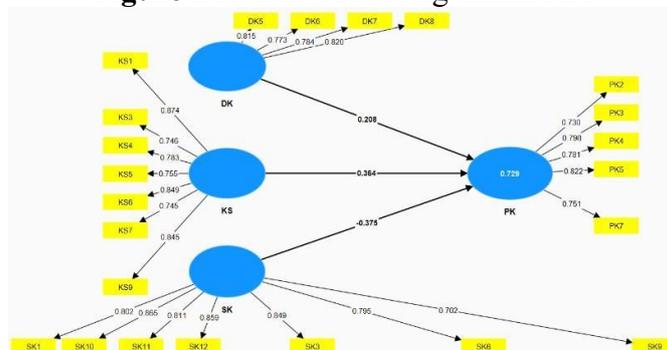
Data Quality Test Results

1. Outer Model

a. Convergent Validity

The convergent validity for a reflective measurement framework was assessed through correlations among item, component, and construct scores using PLS. According to Ghazali (2021), an indicator is said to have good validity if its value is greater than 0.70.

Figure 2 Results of the Algorithm PLS



Source: Output PLS, 2025

The figure above shows outcomes of adjustments made to the structural framework generated from the SmartPLS analysis, which illustrates the relationship between Work Discipline, Teamwork, and Work Stress with Work Productivity. The outer loading values of all indicators are ≥ 0.7 , thus meeting the criteria for convergent validity. Indicators with values below 0.7 were removed at an earlier stage because they did not sufficiently represent the intended construct.

Tabel 2 Convergent Validity Test Results

Variabel	Indikator	Outer Loading	Keterangan
Work Discipline (X1)	DK5	0.815	Valid
	DK6	0.773	Valid
	DK7	0.784	Valid
	DK8	0.820	Valid
Teamwork (X2)	KS1	0.874	Valid
	KS3	0.746	Valid
	KS4	0.783	Valid
	KS5	0.755	Valid
	KS6	0.849	Valid
	KS7	0.745	Valid
	KS9	0.845	Valid
Work Stress (X3)	SK1	0.802	Valid
	SK3	0.849	Valid
	SK6	0.795	Valid
	SK9	0.702	Valid
	SK10	0.865	Valid
	SK11	0.811	Valid
	SK12	0.859	Valid
Work Productivity (Y)	PK2	0.730	Valid
	PK3	0.798	Valid
	PK4	0.781	Valid
	PK5	0.822	Valid
	PK7	0.751	Valid

Source: Output PLS, 2025

The modified test results showed every indicator satisfied the convergent validity requirement, evidenced by a loading factor exceeding 0.7. Thus, each variable could be analyzed in greater depth and used to support the next stage of analysis

In evaluating construct validity via AVE, a quality model demands AVE for each construct exceed 0.05 (Ghozali, 2021).

Tabel 3 AVE (Average Variance Extracted) Test Results

Variabel	Average Variance Extracted (AVE)	Keterangan
Work Discipline	0.637	Reliabel
Teamwork	0.642	Reliabel
Work Stress	0.604	Reliabel
Work Productivity	0.662	Reliabel

After testing the constructs in the model, the results in the table show that all AVE values are > 0.50. This indicates that the constructs have met the reliability criteria, so there are no

problems with convergent validity, and all indicators in the model can be declared valid.

b. Discriminant Validity

Discriminant validity refers to evaluating how indicators relate uniquely to their own latent variables. The test parameter for construct distinctiveness is to look at the cross-loading value with a requirement of >0.70 for each variable.

Tabel 4 Discriminant Validity Test Results (Cross Loading)

Indikator	Work Discipline	Teamwork	Work Productivity	Work Stress
DK5	0.815	0.720	0.596	-0.670
DK6	0.773	0.674	0.485	-0.354
DK7	0.784	0.569	0.604	-0.428
DK8	0.820	0.561	0.624	-0.518
KS1	0.692	0.874	0.716	-0.500
KS3	0.552	0.746	0.671	-0.687
KS4	0.564	0.783	0.535	-0.468
KS5	0.563	0.755	0.628	-0.768
KS6	0.799	0.849	0.686	-0.536
KS7	0.492	0.745	0.538	-0.560
KS9	0.700	0.845	0.657	-0.504
PK2	0.534	0.496	0.730	-0.598
PK3	0.725	0.749	0.798	-0.665
PK4	0.432	0.582	0.781	-0.636
PK5	0.544	0.533	0.822	-0.547
PK7	0.554	0.692	0.751	-0.517
SK1	-0.481	-0.596	-0.557	0.802
SK10	-0.622	-0.685	-0.731	0.865
SK11	-0.514	-0.549	-0.607	0.811
SK12	-0.600	-0.620	-0.713	0.859
SK3	-0.458	-0.605	-0.676	0.849
SK6	-0.489	-0.612	-0.552	0.795
SK9	-0.344	-0.375	-0.470	0.702

Source: Smart PLS, 2025

Referring to the PLS output results listed in Table 3, all loading factor values for each indicator show higher numbers than the cross loading values for other constructs. These findings indicate that there are no problems with the discriminant validity test.

In the Fornell Larcker in testing, discriminant validity is evaluated by comparing \sqrt{AVE} scores (\sqrt{AVE}) of each construct. A model exhibits strong discriminant validity when each variable's \sqrt{AVE} exceeds its correlations with others (Ghozali, 2021).

Table 5 Discriminant Validity Test Results (Fornell-Larcker Criterion)

	Work Discipline	Teamwork	Work Productivity	Work Stress
Work Discipline	0.798			
Teamwork	0.785	0.801		
Work Productivity	0.729	0.797	0.777	
Work Stress	-0.625	-0.717	-0.766	0.814

Source: Smart PLS, 2025

Referring to the PLS output results listed in Table 4, all loading factor values for each indicator show higher numbers than the cross loading values for other constructs. These findings indicate that there are no problems with the construct separation assessment.

c. Reliability Test

This test uses Cronbach's Alpha and Composite Reliability tests. Reliability values can be considered good if Cronbach's Alpha and Composite Reliability both exceed 0.70 (Ghozali, 2021).

Table 6 Results of Cronbach's Alpha and Composite Reliability Testing

Variabel	Cronbach's Alpha	Composite Reliability	Keterangan
Work Discipline	0.811	0.875	Reliabel
Teamwork	0.906	0.926	Reliabel
Work Productivity	0.836	0.884	Reliabel
Work Stress	0.915	0.932	Reliabel

Source: Smart PLS, 2025

Composite Reliability findings reveal all hidden constructs obtained scores >0.7, which means that each variable meets the criteria for good reliability.

2. Inner Model

a. R-Square

The R-Square value test is used to see how much the independent variables contribute to explaining the dependent variables in a research model. According to Ghozali and Latan (2015), the R-Square value can be considered strong if it is 0.67, moderate if it is 0.33, and weak if it is 0.19.

Tabel 7 R-Square Test Results

Variabel Endogen	R-Square	R-Square Adjusted
Work Productivity	0.729	0.710

Source: Smart PLS, 2025

The results of analysis of the structural model reveals that work productivity is in the high category, with an R-Square value of 0.729. This value indicates that 72.9% of the variation in the work productivity construct can be explained by three independent constructs, namely work discipline, teamwork, and work stress. Meanwhile, the remaining 27.1% is influenced by elements beyond the study's variables. The adjusted R-Square of 0.710 further strengthens the model's fit for clarifying the connections between hidden constructs.

b. Good of Fit

According to Ghozali and Latan (2015), Goodness of Fit is a measure that shows how well a model can produce covariance among indicator variables. GoF is interpreted as 0.1 (small), 0.25 (medium), and 0.36 (large).

$$GoF = \sqrt{AVE} \times R^2$$

$$GoF = \sqrt{(0.637 + 0.642 + 0.604 \cdot 0.662)/4} \times 0,710$$

$$GoF = \sqrt{0,63625} \times 0,710$$

$$GoF = 0,5663$$

The calculation results show that the Goodness of Fit (GoF) value = 0.5663, which exceeds the threshold of 0.36. This indicates that the research model is in the good category and has a high level of suitability.

c. Hypothesis Test

The projected coefficient for path relations in the model must reach significance, determined via bootstrapping. If the significant value if the p-value is below 0.05, the hypothesis is supported. Examining the significance of the t-statistic in the bootstrapping algorithm report, the significant value of the t-statistic must be greater than 1.96 (Ghozali, 2021).

Figure 3 Results of the Algorithm PLS

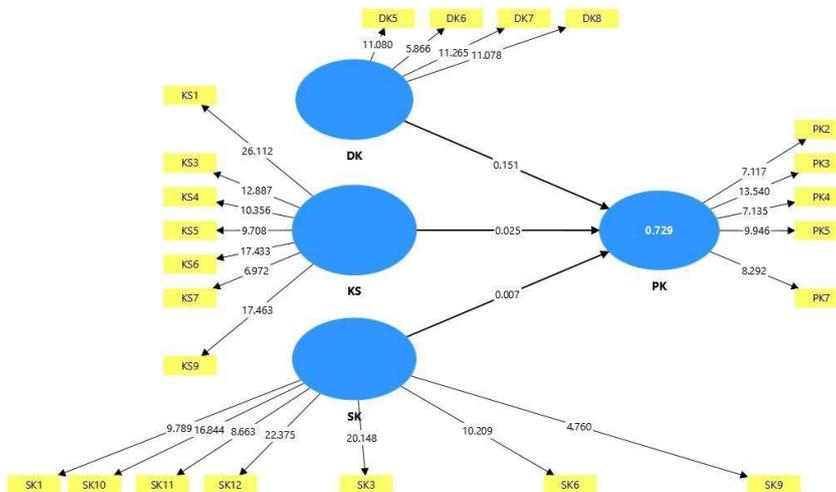


Table 8 Hypothesis Testing Results

	Original Sample	T-Statistic	P-Value	Keterangan
Work Discipline → Work Productivity	0.208	1.435	0.151	No Effect
Teamwork → Work Productivity	0.364	2.240	0.025	Positive Significant
Work Stress → Work Productivity	-0.375	2.677	0.007	Negative Significant

Source: Smart PLS, 2025

Discussion

1. The Effect of Work Discipline on Work Productivity

The results of the hypothesis testing listed in Table 4.20 show that the work discipline variable has a T-Statistic value of $1.435 < 1.96$ and a P Value ($0.151 > 0.05$). From the results obtained, it can be concluded that work discipline does not have a significant effect on employee work productivity. In this case, hypothesis 1 is rejected. Based on observations of the conditions at PT Nadi Digital Indonesia, it was found that some employees exhibited a lack of discipline. Some employees frequently arrive late in the morning and leave early before the end of the workday without clear permission. Although this behaviour occurs quite frequently, there has been no noticeable increase or decrease in overall employee productivity to date. However, if left unaddressed, this situation has the potential to impact the work ethic and discipline of other employees within the PT Nadi Digital Indonesia environment. This is reinforced by the results of previous research conducted by Rahmansyah and Cahyadi (2023), which revealed that the results

of the hypotheses of the Work Environment and Work Discipline variables did not have a significant effect on Employee Work Productivity. Additionally, according to previous research conducted by Wahyuni et al. (2023), the hypothesis was the work discipline factor exerts no influence on employee output.

2. The Effect of Teamwork on Work Productivity

The results of the hypothesis testing listed in Table 4.20 show that the Teamwork variable has an Original Sample value of 0.364, a T-Statistic value of $2.240 > 1.96$, and a P Value ($0.025 < 0.05$). Based on the results obtained, it can be concluded that teamwork has a positive and significant effect on employee work productivity. In this case, Hypothesis 2 is accepted. This is in line with previous research conducted by Budi and Miska (2021), which produced a hypothesis that the variables of Work Environment, Work Motivation, Internal Communication, and Teamwork have a positive and significant influence. According to previous research conducted by Padang and Sitorus (2022), the variables of Motivation and Teamwork have a positive and significant influence on Productivity.

3. The Effect of Work Stress on Work Productivity

The results of the hypothesis testing presented in Table 4.20 indicate that the Work Stress variable has an Original Sample value of -0.375, a T-Statistic value of $2.677 > 1.96$, and a P Value ($0.007 < 0.05$). Based on the analysis results obtained, it can be concluded that teamwork has a negative and significant effect on employee work productivity. In this case, Hypothesis 3 is accepted. This is in line with previous research conducted by Simbolon et al. (2023), which produced a hypothesis that the variable of work stress has a negative and significant effect on productivity. According to the results of previous research conducted by Ismartaya et al. (2023), the variables of workload and work stress have a negative and significant effect on work productivity.

CONCLUSION

Based on the result of data analysis and discussion in the previous chapter, we can draw some conclusions as follows:

1. Work discipline doesn't affect the productivity of PT. Nadi Digital Indonesia employees. Although there are still some employees who have not implemented work discipline properly, this does not affect the productivity of PT. Nadi Digital Indonesia employees.
2. Teamwork has a positive and significant effect on the productivity of PT. Nadi Digital Indonesia employees. The results of this study indicate that the better the teamwork, the higher the level of employee work productivity.
3. Work stress has a negative and significant effect on the productivity of PT. Nadi Digital Indonesia employees. The results of this study indicate that as employee stress decreases, their productivity also increases.

REFERENCES

- Bahtiar, M. (2023). Pengaruh Teamwork Dan Disiplin Kerja Terhadap Produktivitas Kerja Pegawai Pada Dinas Perindustrian Dan Perdagangan Kabupaten Bima. *Jurnal Riset Ekonomi Dan Akuntansi*, 1.
- Budi, M. A. S., & Miska, L. (2021). Pengaruh Lingkungan Kerja, Motivasi Kerja, Komunikasi Internal dan Kerjasama Tim Terhadap Produktivitas Kerja Karyawan Sekolah Swasta Bunga Matahari Kota Banda Aceh. *Jurnal Ilmiah Manajemen Muhammadiyah Aceh*, 11, 181.
- Ghozali, I. (2021). Aplikasi Analisis Multivariate dengan Program IBM SPSS 21. Badan Penerbit Universitas Diponegoro.
- Ghozali, I., & Latan, H. (2015). Partial least squares: Konsep, teknik, dan aplikasi menggunakan program smart PLS. Universitas Diponegoro.
- Hasibuan, M. S. P. (2022). *Manajemen Sumber Daya Manusia (Edisi Revi)*. PT. Bumi Aksara.
- Hermawan, E. (2022). Faktor yang mempengaruhi Kinerja PT. Sakti Mobile Jakarta : Lingkungan Kerja, Stres Kerja dan Beban Kerja. *Jurnal Ilmu Multidisiplin*, 1 no.
- Hidayat, R. (2021). The Influence of Internal Communication, Work Discipline and Team Work Toward Employee Performance. *DIMENSI*, Vol 10 no.
- Irfan, A. A. (2023). Pengaruh Disiplin Kerja dan Lingkungan Kerja Terhadap Produktivitas Kerja Karyawan Dengan Motivasi Sebagai Variabel Intervening. *Jurnal Ilmiah Manajemen Dan Bisnis*, 2.
- Ismartaya, I., Yuningsih, E., & Rengganis, M. (2023). Pengaruh Beban Kerja dan Stres Kerja terhadap Produktivitas Kerja dengan Motivasi Kerja Sebagai Variabel Intervening pada Karyawan PT. ABC. *JURNAL EKONOMI, MANAJEMEN PARIWISATA DAN PERHOTELAN*, 2, 75.
- Padang, I. S., & Sitorus, D. H. (2022). Analisis Motivasi dan Kerjasama Tim terhadap Produktivitas PT Pradana Indah Sejahtera. *Jurnal Manajemen Dan Sains*, 716.
- Rahmansyah, G. O., & Cahyadi, N. (2023). Pengaruh Lingkungan Kerja, Motivasi Kerja, dan Disiplin Kerja Terhadap Produktivitas Karyawan pada BLP Property. *Jurnal Ilmiah Manajemen Dan Bisnis*, 228.
- Sadikin, M. R., & Nurhani, A. (2023). Pengaruh Motivasi, Disiplin Kerja dan Lingkungan kerja Terhadap Kepuasan Kerja Guru dan Karyawan SMK Permata Bunda. *Jurnal Perspektif Manajerial Dan Kewirausahaan (JPMK)*, 3.
- Sedarmayanti. (2018). *Sumber Daya Manusia dan Produktivitas (Cetakan ke)*. CV Mandar Maju.
- Simbolon, S., Sutiono, L., & Simbolon, D. M. (2023). The Effect of Leadership Style, Work Stress and Commitment on Employee Work Productivity at PT. Lunadori Utama in Medan,

- Indonesia. *International Journal of Finance, Economics and Business*, vol.2.
- Sinambela, L. P. (2016). *Manajemen Sumber Daya Manusia membangun tim kerja yang solid untuk meningkatkan kinerja* (Cetakan). PT. Bumi Aksara.
- Sugiyono. (2022). *Metode Penelitian Kuantitatif Kualitatif dan R dan D* (cetakan ke). Alfabeta.
- Sutrisno, E. (2019). *Manajemen Sumber Daya Manusia* (18th ed.). Prenadamedia Group.
- Wahyuni, T., Suryana, A. K. H., & Purwanto, H. (2023). Pengaruh Disiplin Kerja, Kepuasan Kerja, dan Motivasi Kerja Terhadap Produktivitas Karyawan di Woroeng Spesial Sambal Heritage Boyolali. *Jurnal Ilmu Manajemen Dan Akuntansi*, 14, 294.
- Wijaya, C., & Manurung, O. (2021). Produktivitas Kerja analisis faktor budaya organisasi, kepemimpinan spiritual, sikap kerja, dan motivasi kerja untuk hasil kerja optimal. (R. Hidayat (ed.); edisi pert). K E N C A N A.