

Exploring the Relationship Between Work Ability, Discipline, and Employee Productivity

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Abstract

This research aims to test and find out more clearly how the analysis of work ability and work discipline affects employee productivity in the North Sumatra Province Cooperative and SME Service. This research uses method quantitative involving 85 person respondents. Data collection was carried out using questionnaires. The data obtained was analyzed using statistical formulas, namely by using multiple regression analysis which was processed using the SPSS program. The results of the quantitative analysis show that the test results for the work ability variable show a calculated t value of $7.841 > t$ table is 1.989 with a significant value of $0.000 < 0.05$, then the hypothesis H1 is accepted and H0 is rejected, meaning that work ability has a partially positive and significant effect on employee productivity at the North Sumatra Province Cooperative and SME Service. Results testing for variable discipline Work show mark t count as big as $1,198 < t$ table amounting to 1.989 with a significant value of $0.234 > 0.05$, then the hypothesis H2 is rejected and H0 is accepted, meaning that work discipline has a positive effect and does not partially significant to employee productivity at the North Sumatra Province Cooperatives and SMEs Service. Calculated F value amounting to $69.916 > F$ table is 2.71 and is significant $0.000 < 0.05$, then hypothesis H3 is accepted and H0 is rejected, so it can be concluded that work ability and work discipline have a positive and significant effect simultaneously on employee productivity in the Department Cooperatives and SMEs Province Sumatra North.

Keywords: Work Ability, Discipline, and Employee Productivity

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Introduction

Human resources are one of the important organizational elements in both government and private institutions because their function determines the achievement of the stated vision and mission. Human resources, in this case employees, really determine the success in carrying out institutional functions. Institutions or bodies that have quality employees can certainly be an important factor in achieving the expected work productivity. Employees are assets and function as capital (non-material/non-financial) in a business organization which can be realized into real physical and non-physical potential in realizing the existence of the organization .

Human resource management is planning, organizing, coordinating, implementing and supervising procurement , development, providing compensation, integration and separation of workforce in order to achieve organizational goals (A. A. A. P. Mangkunegara, 2017) . One indicator of potential and superior human resources can be seen from work productivity, it is a measure of production efficiency, namely the comparison between output and input (*output* and *input*), such as labor input, while output is measured in the physical environment (M. S. Hasibuan, 2017). Meanwhile, Work productivity is an attitude that always holds the view that today's work methods must be better than yesterday's, and the results that can be achieved tomorrow must be greater or of higher quality than the results achieved today(N. Setiawan, Teguh Waluyo, and Rindi Andhika, 2023). One of the factors that can influence work productivity is work ability (Sutrisno, 2017). Employee work ability contributes to achieving productivity within a company. The better the employee's work ability, the higher the employee's productivity. Conversely, if the employee has low work ability, this will result in low employee work productivity . Work ability is the skills, knowledge and competence that a person has in carrying out certain work or tasks (E. Wakhyuni, 2019) . With good abilities, employees can complete their work well so that employee work productivity can be achieved to the maximum. Conversely, if the employee's work ability is low, it can cause low employee work productivity.

Employee work ability contributes to achieving employee productivity within a company. The better the employee's work ability, the higher the employee's productivity, conversely if the employee has the ability Low work will have an impact on low employee productivity. Work ability plays an important role in increasing employee productivity. Employees must have abilities in accordance with their competencies and experience. To see employee work abilities, the following is a pre-survey related to employee work abilities.

Table 1. Pre Surveys Ability Employee (X₁)

No	Statement	Yes		No	
		Freq	%	Freq	%
1	Employees have knowledge Which in-depth understanding of its duties and functions	13	45	18	55
2	Employees have abilities Work Which Good on training Which There is	6	37.50	24	62.50
3	Employees have work experience qualified in the field	14	47.50	16	52.50

Source: Processed Researcher, 2024

Based on the pre-survey results related to employee work abilities, it can be seen that as many as 55% of employees have in-depth knowledge of their duties and functions in the

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workplace. office so that it can have an impact on low employee productivity. As many as 62.5% of employees have not own ability Which Good with exists training in office and 52.5% of employees' work experience does not support maximum employee productivity in the office. This of course must be used as evaluation material for leaders to improve and increase employee capabilities in accordance with their position. A disciplined employee can be identified as an employee who always comes and goes home on time, does his job well and complies with all organizational rules and applicable norms. Work discipline has an influence positive on employee productivity meaning that if work discipline increases, it will improve Employee productivity also (A. A. Waruwu and L. Simanullang, 2022) (R. P. Lubis, 2020). The correlation coefficient value shows that the strength of the relationship between work discipline and employee productivity is very strong, meaning that every small change is good an increase or decrease in work discipline will affect a greater increase or decrease in employee productivity.

Below is a recapitulation of employee absenteeism which shows the level of employee work discipline.

Table 2. Recapitulation Absence Employee (System *Fingers Print*)

Period 2023	Amount Employee	Permission	Sick	Alpha		T1	T2
January	85	5	6	5		12	12
February	85	7	7	4		13	11
March	85	9	5	3		14	12
April	85	8	8	5		14	11
May	85	7	8	4		11	11
June	85	5	6	7		14	12
July	85	8	9	9		13	12

Source: Service Cooperative and SMEs Province North Sumatra

- TA (No Roll call): Employee upon arrival signs the absence, if you don't sign when you come home from work, you're considered absent.
- T1 (Late One), late coming in Work more than 5 (five) minutes to 15 (fifteen) minutes.
- T2 (Late Two), more than late for work 15 (fifteen) minutes to 30 (thirty) minutes and more.

Data in above shows level absenteeism Which Enough Tall and is one of the factors causing the low employee work discipline. On column alpha can see that's it employee Which alpha or not present. Apart from that, it can be seen that the level of employee tardiness is quite high, this illustrates the implementation of discipline on employee this has not been effective, this can be seen in the employee absenteeism recapitulation table where many employees are late coming to the office. Employee not working optimally according to the available time so that a lot of work is not completed.

Research Methods

This research was carried out using quantitative descriptive methods . When using this method, the primary and secondary data obtained will be elaborated in order to obtain an overview of the situation and conditions in the research area. The sample is part of the population which is expected to represent the research population (M. Pakpahan and M. Manullang, 2014). In order for the information obtained from a sample to truly represent the population, the sample must correctly represent the characteristics of the population it represents

The determination of the population in this study is the entire object/subject of the study. So the sample population or this study is 85 employees.

Table 3. Sample Research

No	Part	Total Population
1	General and Personnel Department	8
2	Financial department	8
3	Institutional Sector	10
4	Cooperative Empowerment Sector	10
5	Supervision and Inspection Sector	12
6	Field Small Business Empowerment	12
7	UPT Cooperative and MSME Training	15
8	UPT Integrated Business Services Center	10
Total number		85

Results

Analysis Regression Linear Multiple

Linear regression analysis is concerned with the study of variable dependence dependent (bound) with independent variable (free), with that's what it's for estimate and predict average population or mark average dependent variable based on known independent values. Multiple linear analysis is used to determine the effect of work ability (X 1), and work discipline (X 2) on employee productivity (Y). The results of multiple linear regression analysis of this research data can be seen from the following table:

Table 4. Results Analysis Regression Linear Multiple

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
1 (Constant)	3,921	1,633		2,402	0.019
Ability Work	1,182	0.151	0.697	7,841	0,000
Discipline Work	0.112	0.093	0.105	1,198	0.234

a. Dependent Variable: Productivity Employee

Source: Results Study Year 2024, (Data processed)

Based on table above, the Multiple Linear Regression equation can be formulated as follows:

$$Y = 3,921 + 1,182 X1 + 0.112 X2$$

The interpretation of the multiple linear regression equation above is as follows:

- a. A constant value of 3.921 shows a positive sign, which means that if work ability and work discipline are zero, then employee productivity is 3.921 units.
- b. The regression coefficient value for the work ability variable shows a positive value, namely 1.182, which means that if the work ability variable increases by one unit, employee productivity will increase by 1.182 units.
- c. The regression coefficient value for the work discipline variable shows a positive value, namely 0.112, which means that if the work discipline variable increases by one unit, employee productivity will increase by 0.112 units.

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Test Hypothesis

Test by Partial (t-test)

In this research, 2 independent variables and variables were used bound by 1 so that the value $k = 4$, value $df_1 = 0.05$ And mark $df_2 = 81$ ($85-4$). From the t-table value distribution table, the t-table value = 1.989. Table t values is a type table distribution which works to determine a hypothesis. This distribution table relies on the t test statistic for comparison. T table consists from various column which shows different functions. The partial test results in this research can be presented in the following table:

Table 5. Results Testing Hypothesis Test Partial (Test t)

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	Std. Error	Beta		
1 (Constant)	3,921	1,633		2,402	0.019
Ability Work	1,182	0.151	0.697	7,841	0,000
Discipline Work	0.112	0.093	0.105	1,198	0.234

a. Dependent Variables: Productivity Employee

Source: Results Study Year 2024, (Data processed)

Based on the partial test results in table above, it can be seen that the test results for each independent variable are as follows:

1. The test results for the work ability variable show the calculated t value amounting to 7,841 > t table amounting to 1,989 with mark significant $0,000 < 0.05$, then hypothesis H1 is accepted and H0 is rejected, meaning that work ability has a partially positive and significant effect on employee productivity.
2. The test results for the work discipline variable show the calculated t value equal to 1.198 < t table amounting to 1.989 with a significant value of $0.234 > 0.05$, then hypothesis H3 is rejected and H0 is accepted, meaning that work discipline partially positive and insignificant effect on employee productivity.

Test by Simultaneous (Test F)

In this research, 3 independent variables and variables were used bound by 1 so that the value $k = 4$, value $df_1 = 3$ ($4- 1$) and mark $df_2 = 81$ ($85-4$). From the distribution table of F-table values, the F-table value = 2.71. The results of the simultaneous tests in this research will be presented in the following table:

Table 6. Results Testing Hypothesis Test Simultaneous (Test F)

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1972.327	3	657,442	69,916	,000 ^a
Residual	432,553	46	9,403		
Total	2404.880	49			

a. Predictors: (Constant), X2, X1

b. Dependent Variables: Y

Based on results test presented simultaneously on table 4.20, with calculated F value amounting to $69.916 > F$ table is 2.71 and is significant $0.000 < 0.05$, then hypothesis H3 is accepted and H0 is rejected, so it can be concluded that work ability and work discipline have a positive and significant effect simultaneously on employee productivity.

Test Coefficient Determination (R²)

The Coefficient of Determination Test (R²) is used to measure how far the model's ability is to explain variations in the dependent variable. The coefficient of determination value for this research data can be seen in the following table:

Table 7. Results Analysis Coefficient Determination (R²)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.906	0.820	0.808	3,066

- a. Predictors: (Constant) ability Work, And discipline Work
- b. Dependent Variables: Productivity

The results of the determination test based on Table 4.21 can be explained as follows: resulting *adjusted R Square* value is 0.808 which indicates that 80.8% of employee productivity can be obtained and explained by work ability and work discipline while 19.2% can be explained by other factors not discussed such as ability, personality, and environment Work. The resulting R value is 0.80906 which indicates a very strong or very close relationship between Work Ability (X₁), and Work Discipline (X₂) on Employee Productivity (Y). This is because the resulting R value is in *the range* of 0.8–0.99. The greater the R value produced, the closer the relationship between the independent variable and the dependent variable.

Partial Influence of Work Ability Regarding Employee Productivity in the Department Cooperative and SMEs Province Sumatra North

Based on results study previous, so researcher has submitted Hypothesis H₁ which states: "Work ability partially has a positive and significant effect on employee productivity." The results of this research explain that work ability has a positive and significant effect on employee productivity at the North Sumatra Province Cooperatives and SMEs Service. This can be seen from the hypothesis test via the t test with a calculated t value of 7.841 with t table value of 1.989 then it is known that the value to count amounting to 7,841 > t table amounting to 1.989 with a significant value of $0.000 < 0.05$, then hypothesis H₁ is accepted and H₀ is rejected, meaning that work ability has a partially positive and significant effect on employee productivity. The positive direction shows that if work ability increases, then productivity employee will increase, on the contrary if ability Work decrease then productivity will also decrease. In other words, when work abilities match the indicators of knowledge, training and experience, the impact on employee productivity will increase. Work ability has a positive and significant influence on employee productivity (E. Wakhyuni, 2019) . The results of this study are appropriate with objective The research carried out was to find out whether work ability partially has a positive and significant effect on productivity employee in Service Cooperative and SMEs Province Sumatra North has been implemented. namely the lack of employee work ability which can be seen from some employees who do not understand their work.

Properly increasing employee work abilities can have a good effect on employee productivity so that employees can develop themselves and understand everything related to their work. Therefore, training plays a very important role in providing Employee productivity experienced so that it will have a positive impact on the productivity of the company or organization

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Partial Influence of Work Discipline Regarding Employee Productivity in the Department Cooperative and SMEs Province Sumatra North

Based on the results of previous research, the researcher has proposed Hypothesis H 3 which states that: "Work discipline partially has a positive and significant effect on employee productivity." The results of this research explain that work discipline has a positive and significant effect on employee productivity in Service Cooperative and SMEs Province Sumatra North. This can be seen from the hypothesis test via the t test with a calculated t value of 1.198 with t table value as big as 1,989 so known that mark t counts as big as 1,198 < t table of 1.989 with a significant value of 0.234 > 0.05, then hypothesis H 3 rejected and H0 accepted, meaning that work discipline has a partially positive and insignificant effect on employee productivity. The positive direction shows that if work discipline increases, then productivity employee will increase, on the contrary If Discipline Work decrease then productivity will also decrease. In other words, when the work discipline corresponds to the attendance frequency indicator. alert level. adherence to work standards. Compliance with work regulations and work ethics will have an impact on employee productivity which will increase. Work discipline does not have a positive and significant influence on employee productivity (S. C. Y. Assagaf and L. O. H. Dotulong, 2015) (D. Darmilisani, N. K. Istiqamah, and R. F. Hasibuan, 2024). The results of this research are in accordance with the aim of the research carried out, namely to find out whether work discipline has partially had a positive and significant effect on employee productivity at the North Sumatra Province Cooperatives and SMEs Service. Namely the low level of employee work discipline seen from employee who is often late for work.

If there is good work discipline from employees, such as carrying out work in accordance with what has been determined by the company, arriving on time, and obeying all company regulations, this can increase employee productivity. With disciplinary regulations Work can influence employees to work well so they can achieve targets within the company.

Influence of Ability Simultaneous Work and Work Discipline on Employee Productivity at the North Sumatra Province Cooperative and SME Service

Based on various existing theories and previous research results, the researcher has submitted Hypothesis H 4 Which sounds that: " work ability and work discipline simultaneously have a positive and significant effect on employee productivity at the North Sumatra Province Cooperatives and SMEs Service.”.

The results of this research explain that work ability and work discipline simultaneously have a positive and significant effect on employee productivity at the Sumatra Province Cooperatives and SMEs Service. North. This is visible from analysis linear regression multiple through the F test which is positive with the calculated F value amounting to 69.916 > F table is 2.71 and is significant 0.000 < 0.05, then the hypothesis H3 is accepted and H0 is rejected, so it can be concluded that ability work, and work discipline simultaneously have a positive and significant effect on employee productivity. The positive direction shows that every time there is an increase in work ability and work discipline it will lead to an increase in employee productivity in the North Sumatra Province Cooperative and SME Service (H. Pramana, J. Herawati, and E. Septyarini, 2020). Results This research is in accordance with the aim of the research carried out, namely to determine whether work ability and work discipline simultaneously have a positive and significant effect on employee productivity. namely the productivity of employees of the Provincial Cooperative and SME Service North Sumatra which still hasn't optimal has been missed. The resulting *adjusted R Square* value amounting to 0.808 which indicates that 80.8% of employee productivity can be obtained and explained by work ability and work discipline while 19.2% can be explained by factors other Which No discussed like personality and environment Work.

Conclusion

Based on the results of the research and discussion carried out in the previous chapter, it can be concluded as follows:

1. The test results for the work ability variable show the calculated t value amounting to 7,841 > t table amounting to 1.989 with a significant value of 0.000 < 0.05, then hypothesis H1 is accepted and H0 is rejected, meaning that work ability has a partially positive and significant effect on employee productivity. in Service Cooperative and SMEs Province Sumatra North.
2. The test results for the work discipline variable show the calculated t value equal to 1.198 < t table of 2.01 with a significant value of 0.234 > 0.05, then hypothesis H 2 is rejected and H0 is accepted, meaning that work discipline has a positive and partially insignificant effect on employee productivity in Service Cooperative and SMEs Province Sumatra North.
3. Calculated F value amounting to 69.916 > F table is 2.71 and is significant 0.000 < 0.05, then the hypothesis H 3 is accepted and H0 is rejected, so it can be concluded that work ability and work discipline have an influence positive and significant in a way simultaneous to Productivity employee in Service Cooperative and SMEs Province Sumatra North

Bibliography

- A. A. A. P. Mangkunegara, *Manajemen Sumber Daya Manusia Perusahaan*. Bandung: Remaja Rosdakarya, 2017.
- M. S. Hasibuan, *Manajemen Sumber Daya Manusia*, 14th ed. Jakarta: Bumi Aksara, 2017.
- N. Setiawan, Teguh Waluyo, and Rindi Andhika, "The Influence of Work Ethics, Work Discipline, And Work Motivation On Work Productivity of Private Office in North Sumatra," *Journal of Management Analytical and Solution (JoMAS)*, vol. 3, no. 1, pp. 22–29, Jan. 2023, doi: 10.32734/jomas. v3i1.10105.
- Sutrisno, *Manajemen Sumber Daya Manusia*. Jakarta: Kencana, 2017.
- E. Wakhyuni, "Analisis kemampuan, komunikasi dan konflik kerja terhadap kepuasan kerja karyawan pada PT. Mitha Sarana Niaga," *Jumant*, vol. 11, no. 1, pp. 271–278, 2019.
- A. A. Waruwu and L. Simanullang, "Analisis Motivasi Kerja, Disiplin Kerja dan Insentif Terhadap Kinerja Karyawan," *ARBITRASE: Journal of Economics and Accounting*, vol. 3, no. 2, pp. 447–454, Nov. 2022, doi: 10.47065/arbitrase. v3i2.541.
- R. P. Lubis, "Pengaruh Disiplin Kerja an Pengawasan Kerja Terhadap Efektivitas Kerja Karyawan Pada Pt. Alindobaja Perkasa Medan," *Jurnal Abdi Ilmu*, vol. 13, no. 2, Sep. 2020.
- M. Pakpahan and M. Manullang, *Metode Penelitian*. Medan: Ciptapustaka Media, 2014.
- S. C. Y. Assagaf and L. O. H. Dotulong, "Pengaruh Disiplin, Motivasi Dan Semangat Kerja Terhadap Produktivitas Kerja Pegawai Dinas Pendapatan Daerah Kota Manado," *Jurnal EMBA*, vol. 3, no. 2, Jun. 2015.
- D. Darmilisani, N. K. Istiqamah, and R. F. Hasibuan, "Analisis Disiplin Kerja, Aksebilitas dan Produktivitas terhadap Kinerja Guru Di Sman 4 Medan," *Jurnal Bina Bangsa Ekonomika (JBBE)*, vol. 17, no. 1, Feb. 2024.
- H. Pramana, J. Herawati, and E. Septyarini, "Pengaruh Motivasi Kerja, Disiplin Kerja dan Lingkungan Kerja terhadap Produktivitas Kerja pada Dinas Kependudukan dan Pencatatan Sipil Kabupaten Gunungkidul," *Transformasi Manageria: Journal of Islamic Education Management*, vol. 3, no. 2, pp. 331–351, Dec. 2022, doi: 10.47467/manageria. v3i2.2478.