



## The Influence of Work Collaboration, Work Coordination and Work Discipline on Employee Performance at the Department of Energy and Mineral Resources of North Sulawesi Province

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**Abstract:** This study aims to obtain empirical evidence regarding the effect of work collaboration, work coordination and work discipline on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province. The population in this study were employees of the Department of Energy and Mineral Resources of North Sulawesi Province. This study uses a type of quantitative research. Saturated sampling technique with a total of 72 samples. The analytical method used was validity, reliability, classical assumptions and multiple regression using the SPSS version 25 application. The results showed that work collaboration, work coordination and work discipline had a positive and significant effect on employee performance. Taken together, the variables of work collaboration, work coordination and work discipline have a significant effect on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.

**Key words:** Work Collaboration, Work Coordination, Work Discipline, Employee Performance.

### INTRODUCTION

#### Background

Human resources are one of the important components in an organization or institution. HR needs to be managed, regulated, and utilized properly in order to achieve organizational productivity so that organizational goals are achieved (Suharto, 2012). Every organization certainly hopes and strives to create human resources capable of achieving the goals of the organization. Performance is the result of work achieved by individuals or groups within an institution (Manalu, 2019). Therefore, every institution needs to evaluate and identify the factors that affect the performance of employees in the institution. Discipline is very important for organizational growth and is mainly used for work collaboration and work coordination for employees so they can discipline themselves in carrying out work, both individually and in groups. Besides that, discipline is useful for educating employees to obey and like

existing rules, procedures and policies, so that they can produce good performance. This will have a positive impact if employees are disciplined in working with work discipline, regulations and policies that exist in an agency can be obeyed and appreciated, in other words, work discipline can improve employee performance. However, if employees are not disciplined at work, such as arriving on time and often violating existing regulations within the organization, it will have a negative impact, and result in decreased employee performance, and it will automatically be difficult to achieve organizational goals. The role of performance has a very important position at this time because performance is the main factor in realizing organizational goals. Employee performance is still one of the problems in an organization, low employee performance can be influenced by work collaboration, work coordination and work discipline. In this study researchers will try to examine the effect of collaboration, work coordination and work discipline on employee performance. Employee performance is the result achieved by an employee. work coordination and work discipline on employee performance. Employee performance is the result achieved by an employee. work coordination and work discipline on employee performance. Employee performance is the result achieved by an employee.

North Sulawesi Province in terms of geology, there is potential for mineral and energy resources that can be utilized for the prosperity and welfare of the people of North Sulawesi. Only a part of this potential has been exploited, the rest still needs a series of activities so that it can be utilized to realize the Vision of North Sulawesi Province, namely "The realization of North Sulawesi being independent in the economy, sovereign in government and politics and having personality in culture". Referring to the annual strategic plan document, the Regional Office of Energy and Mineral Resources of North Sulawesi Province has made an annual plan in an effort to achieve the targets set in accordance with the strategic objectives contained in the strategic plan document. Civil Servants are domiciled as elements of the State apparatus duty to provide services to the community in a professional, honest, fair and equitable in carrying out state, government and development tasks to the community based on loyalty and obedience to Pancasila and The 1945 Constitution. Implementation of tasks properly, coaching is needed employees are directed to improve the quality of human resources in order to have attitude and behavior with the core of dedication, honesty, responsibility, discipline and authority so that they can provide services according to development demands public. The following is Table 1 Summary of the number of employees and SKP of employees for 2018-2022 within the Regional Energy and Mineral Resources Office of North Sulawesi Province:

**Table 1. Format of Number of Employees and Request for Recapitulation Employee Performance Standards (SKP) 2018-2022**

OPD name	Regional Office of Energy and Mineral Resources of North Sulawesi Province				
	2018	2019	2020	2021	2022
Number of Employees	51	44	39	36	34
Number of civil servants who have performance appraisal	51	44	39	17	-

Source: ESDM North Sulawesi Province (2023)

Performance achievement level of the Regional Energy and Mineral Resources Office of North Sulawesi Province based on the objectives/targets of the Strategic Plan of the Regional Energy and Mineral Resources Office of North Sulawesi Province in the previous period, according to SPM and service performance indicators of the Regional Office of Energy and Mineral Resources of North Sulawesi Province as well as indicators the other indicators have been ratified by the government. The following table 2 Performance achievements at the Department of Energy and Mineral Resources of North Sulawesi Province:

**Table 2. Service Performance Achievement of the North Sulawesi Province ESDM Service**

Indicator	2016	2017	2018	2019	2020
Electrification ratio (RKP indicator)	86.3%	92.5%	92%	98%	99%
Electrified Village Ratio	91%	98.5%	98.5%	99.2%	99.4%
Metal Production	81,487	-	-	9781600	9781600
Non Metal Production	10010124	-	-	145622266	145622266
Decrease in Number of PETI Areas	35.0%	-	-	51.82%	51.82%

Source: Draft ESDM Strategic Plan for North Sulawesi Province (2023)

Human Resources have an important role for Employees at the Department of Energy and Mineral Resources of North Sulawesi Province because HR is the manager of the system, so that this system continues to run, of course its management must pay attention to important aspects such as work collaboration, work coordination and work discipline as well as the level of comfort at work so that the employee concerned can be encouraged to provide all capabilities according to what is required by the agency. Human resources with good employee performance will ultimately produce good agency performance as well. The success of achieving goals in an organization is inseparable from the quality of its Human Resources, good quality will be obtained if the agency seriously pays attention to and knows the needs of the agency and the abilities of its employees. To achieve its goals, an agency must have individuals with appropriate qualities, clear duties, authorities, responsibilities, relationships and work procedures. This can be realized through human resource management activities which in a nutshell can also be said as an effort to utilize human resources. Obstacles encountered in implementing programs/activities and achieving goals and objectives can be overcome thanks to the cooperation and commitment of all parties in the ranks of the Office. In the future, optimal sources of funds are needed to support the implementation of tasks in Mining and Energy, including: Procurement and installation of public street lighting in places that require lighting, Inventory of new renewable energy potentials, Inventory of Community Energy Needs, Geological Survey, Guidance and Supervision of Mining Business Permit holders as well as supervision and control of people's activities that damage the environment. Obstacles encountered in implementing programs/activities and achieving goals and objectives can be overcome thanks to the cooperation and commitment of all parties in the ranks of the Office. In the future, optimal sources of funds are needed to support the implementation of tasks in Mining and Energy, including: Procurement and installation of public street lighting in places that require lighting, Inventory of new renewable energy potentials, Inventory of Community Energy Needs, Geological Survey, Guidance and Supervision of Mining Business Permit holders as well as supervision and control of people's activities that damage the environment. Obstacles encountered in implementing programs/activities and achieving goals and objectives can be overcome thanks to the cooperation and commitment of all parties in the ranks of the Office. In the future, optimal sources of funds are needed to support the implementation of tasks in Mining and Energy, including: Procurement and installation of public street lighting in places that require lighting, Inventory of new renewable energy potentials, Inventory of Community Energy Needs, Geological Survey, Guidance and Supervision of Mining Business Permit holders as well as supervision and control of people's activities that damage the environment.

Analysis of the causes of success/failure or improvement/decrease in performance. The main target performance indicators generally refer to the number of mining business permits (IUP) that are still valid. The increase or decrease in performance is dynamic because the IUP that is valid every year can increase or decrease according to the validity period of the SK. In general, the total number of IUPs that are still

valid is developed/arranged in accordance with the number of IUPs that are still valid. Analysis of the efficiency of the use of resources, strategic targets are quite achieved with human resources and allocation of funds/budgets. Analysis of the efficient use of resources, a decrease in the allocation of budgetary funds affects the achievement of strategic goals. In addition, the existing technical personnel in the field are still limited both in terms of capacity and number compared to the performance achievement targets. key performance indicators, the strategic goals for 2020 achieved success as determined with an achievement realization of 113%. It is impossible to increase the quality of the apparatus without work collaboration, work coordination and concrete employee discipline to improve it. In implementing several employee competency development policies at the Energy and Mineral Resources Office of North Sulawesi Province in realizing or creating apparatus that have high performance competence in carrying out their duties and positions professionally, in the current reform era the government has established several policies in the field of development of work competencies at the Department of Energy and Mineral Resources of North Sulawesi Province. It is impossible to increase the quality of the apparatus without work collaboration, work coordination and concrete employee discipline to improve it. In implementing several employee competency development policies at the Energy and Mineral Resources Office of North Sulawesi Province in realizing or creating apparatus that have high performance competence in carrying out their duties and positions professionally, in the current reform era the government has established several policies in the field of development of work competencies at the Department of Energy and Mineral Resources of North Sulawesi Province. It is impossible to increase the quality of the apparatus without work collaboration, work coordination and concrete employee discipline to improve it. In implementing several employee competency development policies at the Energy and Mineral Resources Office of North Sulawesi Province in realizing or creating apparatus that have high performance competence in carrying out their duties and positions professionally, in the current reform era the government has established several policies in the field of development of work competencies at the Department of Energy and Mineral Resources of North Sulawesi Province.

Based on the description above, the writer is interested in conducting research with the title: "The Influence of Work Collaboration, Work Coordination and Work Discipline on Employee Performance at the Department of Energy and Mineral Resources of North Sulawesi Province".

### **Research purposes**

1. To analyze the effect of work collaboration on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.
2. To analyze the effect of work coordination on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.
3. To analyze the effect of work discipline on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.
4. To jointly analyze the effect of work collaboration, work coordination and work discipline on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.

## **LITERATURE REVIEW**

### **Human Resource Management**

According to Sinambela, LP, (2021) defines that human resource management is the entire process of planning, organizing, directing and supervising the activities of procuring selection, training, placement, providing compensation, developing, integrating, maintaining, and releasing HR to achieve various individual goals. , communities, government customers and concerned organizations. According to Cahyawening (2019) said that human resource management is a planning, organizing, directing, and supervising procurement, development, compensation, integration, maintenance, and termination of



employment with the aim of achieving organizational goals of change in an integrated manner. Based on experts that human resource management can be concluded as a process of planning,

### **Employee Performance**

According to Sulistiyani and Rosidah (2018) a person's performance is a combination of ability, effort and opportunity that can be assessed from the results of his work. According to Nabawi (2019) employee performance is the result of work achieved by someone in carrying out the tasks assigned to him to achieve work targets. According to Effendy and Fitria (2019) performance is the result of work that can be achieved by a person or group of people in an organization, which starts from the initial process to the end as the result obtained. Based on the definition of the experts, it can be concluded that performance is the result of work obtained by an employee after carrying out his duties both in quality and quantity in an organization within a predetermined period of time.

### **Collaborative Governance**

Collaboration is a collection of government decision-making procedures and structures involving participants from the private sector, civil society, and/or other public sectors. There are different levels of communication, collaboration, and delegation of decision authority to participants. Defined as collaborative governance, which is also known as participatory governance (Prasetyo et al., 2021). According to Subarsono (2016: 175) basic standards in implementing collaborative governance is that there are important standards in applying the notion of collaborative governance including contributions from different stakeholders outside the public/state authority, agreement lies, and consultation in aggregate dynamic cycles, and plans to express or implement out public strategies and projects. Based on the definition of the experts it can be concluded that An activity can be said to be a collaboration if it has fulfilled five stages, namely: face-to-face dialogue between stakeholders, building trust, the process of achieving commitment, understanding joint decisions, and obtaining interim results.

### **Work Coordination**

Several definitions of coordination based on the opinions of experts, in Zamahsyari (2020), Manulang (2016) argues that coordination is the skill of managing the activities of all organizational units so that all organizational units can work together to achieve maximum results. The goal is to coordinate activities between organizational units to achieve organizational goals. In general, coordination is the power to move, combine, and align separate or different activities so that they are integrated to achieve a goal. Meanwhile, functionally, coordination is carried out to reduce negative effects and clarify the division of work units (Ndaha, 2003 in Syauqi, 2019). Based on the opinion of Hani Handoko, coordination is the process of combining objectives and activities from various parts of the organization to achieve organizational goals. without coordination,

### **Work Discipline**

According to Hasibuan (2017) states that discipline is a person's awareness and willingness to comply with all applicable social rules and norms. According to Kusumayanti et al., (2020) work discipline is an orderly state in which a person or group belonging to the organization wishes to obey and carry out existing regulations, both written and unwritten. Based on the definitions of the experts above, it can be concluded that work discipline is a person's attitude towards existing regulations, both written regulations and unwritten regulations within a particular organization.

**Work Discipline Factors** According to Harahap & Tirtayasa (2020) there are work discipline factors, namely:

1. The size of the award of compensation, employees who receive Adequate compensation will work best and vice versa.

2. Whether or not there is an exemplary leadership in the company, leadership used as an example for his subordinates in complying with existing regulations.
3. Whether there are definite rules that can be used as a guide, will better if a rule is made in writing.
4. The courage of the leadership in taking action, if any employees who violate the rules then the leadership must take firm action.
5. Whether there is leadership oversight, a leader who is responsible for supervising his subordinates.
6. Whether there is concern for the employees, the leadership is concerned not to the condition of his subordinates when doing work.
7. Created habits that support the establishment of discipline, mutual respect for each other, giving praise to employees, permission with co-workers when leaving the workplace.

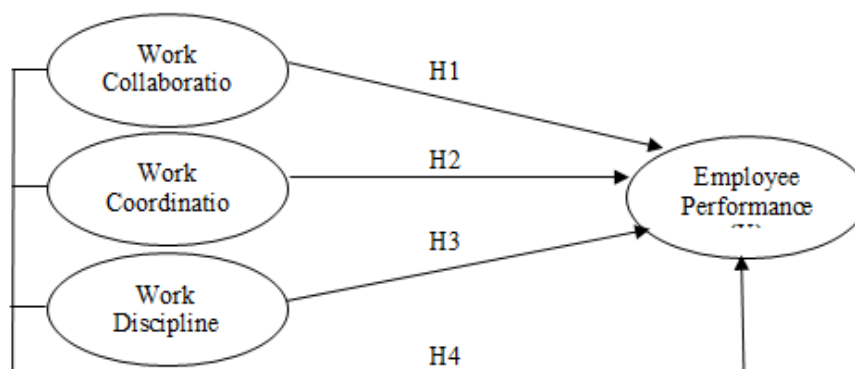
Types of Work Discipline According to Prasetyo and Marlina (2019), there are two types of work discipline, namely:

1. Preventive Discipline. is in order to move employees to follow and comply with the guidelines and work rules set by the organization. Preventive discipline aims to move and direct employees to work discipline. Preventive methods are intended for employees to maintain themselves against organizational regulations, organizational leaders are responsible for building an organizational climate that leads to the application of preventive discipline.
2. Corrective Discipline, is an effort to mobilize employees to unite something regulations and directs them to comply with various regulations in accordance with the guidelines that apply to the organization. In corrective discipline, employees who violate discipline will be given sanctions aimed at making these employees improve themselves and comply with the established rules.

### Previous research

Maimunah, Subiyanto and Herawati (2020) in this study entitled collaborative work placement and affective commitment in improving employee performance. The results of the study show that collaboration has a positive and significant effect on performance. Darmawati I, Susilo P (2019) in this study entitled analysis of communication coordination and organizational culture on the performance of employees of the Tangerang City DPRD secretariat. The results showed that work coordination has a positive and significant effect on performance. Trianto E (2022) in this study entitled the influence of work discipline, work motivation, and work environment on the performance of employees of the Tangerang City One-Stop Investment and Integrated Services Service (DPMPTSP). The results showed that work discipline has a positive and significant effect on performance.

### Research Model and Hypothesis



**Figure 1. Research Model**

Source: Theoretical Studies and Empirical Studies (2023)

**hypothesis**

H1: It is suspected that there is a positive and significant influence of work collaboration (X1) on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.

H2: It is suspected that there is a positive and significant influence of work coordination (X2) on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.

H3: It is suspected that there is a positive and significant effect of work discipline (X3) on employee performance at the Department of Energy and Mineral Resources of North Sulawesi Province.

H4: It is suspected that there is a significant influence of work collaboration (X1), work coordination (X2), work discipline (X3) on employee performance (Y) at the Department of Energy and Mineral Resources of North Sulawesi Province.

**RESEARCH METHODS****Research methods**

According to Sugiyono (2018: 13) quantitative data is a research method that is based on positivistic (concrete data), research data is in the form of numbers that will be measured using statistics as a counting test tool, related to the problem being studied to produce a conclusion. This research is a research with the type of problem in the form of two or more variables to identify facts or events. These variables affect the independent variables, namely work collaboration, work coordination, work discipline, while the dependent variable is employee performance.

**Location and Research Object**

The research location is a place where the researcher finds certain phenomena there and is set as a background for research. Moleong (2018: 127) explains that choosing a research location is directed by an empirical theory which is then formulated in the form of temporary data. Later this data will be juxtaposed and confirmed with the data found when the researcher has gone into the field (research location). This research was conducted at the Office of Energy and Mineral Resources of North Sulawesi Province.

**Method of collecting data**

The data collection method in this study used a questionnaire (Google Forms) which is a data collection technique by providing a set of questions or written questions to respondents to answer. This research was conducted by distributing questionnaires to employees of the Department of Energy and Mineral Resources which will be measured using a Likert scale. This study uses descriptive analysis techniques and multiple linear regression analysis.

**Population and Research Sample**

According to Sugiyono (2018: 117) Population is a generalized area consisting of objects or subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions. The population of this study is the Employees of the Department of Energy and Mineral Resources of North Sulawesi Province. The total sample of employees is 72 respondents.

**Research Instrument Scale**

According to Sugiyono (2018: 93) the Likert scale is used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. The questionnaire or questionnaire uses a Likert scale in the form of a checklist. With a Likert scale, the measured variables are translated into variable indicators. Then these indicators are used as a starting point for compiling instrument items which can be in the form of statements or questions.

**Data analysis method**

Data analysis is one of the research activities in the form of the process of compiling and managing data in order to interpret the data that has been obtained, according to Sugiyono (2017) Data analysis is an activity after data from all respondents or other data sources has been collected. Data analysis activities are grouping data based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable studied, performing calculations to answer the problem formulation and performing calculations to test the hypotheses that have been proposed.

**Validity test**

Validity test is done by comparing the value of  $r$  count with  $r$  table for degree of freedom ( $df$ ) =  $n-2$ , in this case  $n$  is the number of samples. If  $r$  count is greater than  $r$  table and is positive, then the question is declared valid. (Sugiyono, 2017: 124).

**Reliability Test**

Reliability test is a value that shows the consistency of a measuring device in measuring the same symptoms. To test the level reliability the instrument is carried out through the Internal Test Consistency by using the Reliability Coefficient (Cronbach's Alpha). The value of the Cronbach Alpha Coefficient is said to be good if the coefficient is between 0.6 and 1.0 (Umar, 2019: 113).

**Normality test**

The normality test was carried out to see whether the independent variable and dependent variable in the regression model have normally distributed data or not. According to Sugiono (2017), the Normality Test is a test to see whether the residuals obtained have a normal distribution. This statistical test uses the Kolmogorov-Smirnov test. If the Significant value  $> 0.05$ , then it is said that the residuals are normally distributed, and vice versa.

**Multicollinearity Test**

To find whether or not multicollinearity exists in the regression model, it can be seen from the tolerance value and the variance inflation factor (VIF) value. The tolerance value measures the variability of the selected independent variables which cannot be explained by other independent variables. So a low tolerance value is the same as a high VIF value, because  $VIF = 1/\text{tolerance}$ , and indicates high collinearity. The cut off value used is for a tolerance value of 0.10 or a VIF value above 10.

**Homoscedasticity Test**

Homoscedasticity occurs when the probability distribution remains the same for all  $x$  observations, and the variance of each residual is the same for all values of the explanatory variable.

**Multiple Linear Regression Analysis**

Multiple linear regression analysis was carried out to find out the direction and how much influence the independent variables have on the dependent variable (Ghozali, 2018).

**Coefficient of Determination ( $R^2$ )**

Testing the coefficient of determination was carried out with the intention of measuring the ability of the model to explain how the effect of the independent variables jointly (simultaneously) affects the dependent variable which can be indicated by the adjusted R-Squared value (Ghozali, 2016).

**Simultaneous Significance Test (F Test)**

The F test aims to find out whether the independent variables simultaneously (simultaneously) affect the dependent variable. The F test was carried out to see the effect of all the independent variables together



on the dependent variable. The level used is 0.5 or 5%, if the significant value of  $F < 0.05$  it means that the independent variables simultaneously affect the dependent variable or vice versa (Ghozali, 2016).

### Variable Operational Definitions

1. Work Collaboration, the dependence of employees in completing joint tasks and individual responsibility to carry out tasks without waiting for orders from superiors. Indicators: Positive interdependence, Interaction in learning, Individual responsibility.
2. Work coordination, carrying out instructions given in accordance with SOP and providing the necessary data and information to superiors. Indicators: Work according to instructions, Carry out instructions given, Provide the necessary data and information.
3. Work discipline, inherent supervision is integrity, often superiors exercise control and penal sanctions for violating the rules. Indicators: Purpose and ability, Exemplary leadership, Remuneration, Fairness, Inherent supervision, Punishment, Firmness of leadership, Human relations.
4. Employee performance, quality and quantity in completing a job. Timeliness, effectiveness, work independently and employee commitment to work in the agency. Indicators: Quality, Quantity, Timeliness, Effectiveness, Independence, Commitment.

## RESEARCH RESULTS AND DISCUSSION

### Research result

#### Validity Test Results

The results of testing the validity of the research instrument using the Statistical Product Service Solution (SPSS) for windows are summarized in Table 3 below:

**Table 3. Validity Test Results**

Variable	Statement	Person Correlation	Sig	Alpha	Status
Work Collaboration (X1)	X1.1	0.912	0.000	0.05	Valid
	X1.2	0.962	0.000	0.05	Valid
	X1.3	0.951	0.000	0.05	Valid
Work coordination (X2)	X2.1	0.836	0.000	0.05	Valid
	X2.2	0.863	0.000	0.05	Valid
	X2.3	0.887	0.000	0.05	Valid
Work Discipline (X3)	X3.1	0.616	0.000	0.05	Valid
	X3.2	0.652	0.000	0.05	Valid
	X3.3	0.514	0.000	0.05	Valid
	X3.4	0.767	0.000	0.05	Valid
	X3.5	0.812	0.000	0.05	Valid
	X3.6	0.749	0.000	0.05	Valid
	X3.7	0.728	0.000	0.05	Valid
	X3.8	0.732	0.000	0.05	Valid
Employee Performance (Y)	Y1.1	0.574	0.000	0.05	Valid
	Y1.2	0.594	0.000	0.05	Valid
	Y1.3	0.790	0.000	0.05	Valid
	Y1.4	0.854	0.000	0.05	Valid
	Y1.5	0.717	0.000	0.05	Valid
	Y1.6	0.811	0.000	0.05	Valid

Source: Data processed by SPSS 25 (2023)

Based on Table 3 the results of the validity test of the questionnaire on 72 respondents are explained as follows:

1. Work Collaboration Variable (X1) from 3 statement items (X1.1 – X1.3) obtained the lowest correlation value on item X1.1 =0.912 with a significance value = 0.000.
2. Work Coordination Variable (X2) from 3 statement items (X2.1 – X2.3) obtained the lowest correlation value on item X2.1 =0.837 with a significance value = 0.000.
3. Work Discipline Variable (X3) of the 8 statement items (X3.1 – X3.8) obtained the lowest correlation value on item X3.3 =0.514 with a significance value = 0.000.
4. Employee Performance Variable (Y) from 6 question items (Y1.1 – Y1.6) obtained the lowest correlation value on item Y1.1 =0.574 with a significance value = 0.000.

Based on From these results it can be concluded that all question items from each variable in the questionnaire are valid because the correlation value is  $> 0.227$  on r table and n 72 and also the significance value is  $< 0.05$ .

### Reliability Test Results

The results of the reliability test for all variable items are shown in Table 4 below:

**Table 4. Reliability Test Results**

Variable	Cronbach' Alpha	Information
Work Collaboration (X1)	0.935	Reliable
Work Coordination (X2)	0.811	Reliable
Work Discipline (X3)	0.833	Reliable
Employee Performance (Y)	0.820	Reliable

Source: Data processed by SPSS 25 (2023)

Based on the results of the reliability test in Table 4 it is known that all instrument items have a Cronbach's Alpha value of more than 0.6. This means all items are reliable. Thus the entire statement (questionnaire) can be used for research.

### Normality Test Results

The test results using the One-Sample Kolmogorov-Smirnov Test in table 5 are as follows:

**Table 5. Normality Test Results Using the Kolmogorov-Smirnov Test Analysis**

Unstandardized Residuals		
N		72
Normal Parameters, b	Means	.0000000
	std. Deviation	.35354492
Most Extreme Differences	absolute	.094
	Positive	.094
	Negative	-.086
Test Statistics		.094
asympt. Sig. (2-tailed)		.193c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Source: Data processed by SPSS 25 (2023)

The test criteria are taken based on the probability value with the IMB SPSS Statistics 25 application. If the significance value (sig) is  $> 0.05$ , then the research data is normally distributed. Conversely, if the significance value (sig) is  $< 0.05$ , then the research data is not normally distributed. The significance value (sig) shows  $0.193 > 0.05$ , this means that the frequency distribution comes from a normally distributed population.

### Multicollinearity Test Results

Imam Ghozali (2011: 107-108) There are no symptoms of multicollinearity, if the tolerance value is  $> 0.100$  and the VIF value is  $< 10.00$ .

**Table 6. Multicollinearity Test Results**

Model	Collinearity Statistics	
	tolerance	VIF
(Constant)		
Work Collaboration (X1)	.867	1.154
Work Coordination (X2)	.270	3,701
Work Discipline (X3)	.287	3,485
a. Dependent Variable: Employee Performance (Y)		

Source: Data processed by SPSS 25 (2023)

Table 6 shows that there are no symptoms of multicollinearity if the VIF value  $< 10$ . Because the VIF values of all variables are less than 10, there are no symptoms of multicollinearity at all. The independent variables. It can be concluded that there are no symptoms of multicollinearity in the model.

### Simultaneous F-Test Results

The results of the simultaneous F-test analysis can be seen in Table 7 below:

**Table 7. Test Results (F)**

ANOVAa

Model	Sum of Squares	df	MeanSquare	F	Sig.
1 Regression	19,907	3	6,636	50,845	.000b
residual	8,875	68	.131		
Total	28,782	71			

a. Dependent Variable: Employee Performance (Y)

b. Predictors: (Constant), Work Discipline (X3), Work Collaboration (X1), Work Coordination (X2)

Source: Data processed by SPSS 25 (2023)

Based on the test results in Table 7 above, it can be seen that the Fcount value is 50,845 with the Ftable value being 2.50 so that the Fcount  $>$  Ftable or  $50,845 > 2.50$  and a significant level of  $0.000 < 0.05$ , it can be concluded that the variable Work Collaboration (X1), Work Coordination (X2), and Work Discipline (X3) together have a significant effect on Employee Performance at Department of Energy and Mineral Resources of North Sulawesi Province, So Hypothesis 4 H4 can be accepted.

### t Test Results (Partial)

The (partial) t test was performed to test the significance of the regression coefficient of the independent variables, which can be seen in Table 8 below:

**Table 8. Test Results (t)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	std. Error	Betas		
(Constant)	.658	.332		1984	.051
Work Collaboration (X1)	.131	.055	.171	2,369	.021
Work Coordination (X2)	.214	.107	.268	2068	.043
Work Discipline (X3)	.515	.124	.522	4,139	.000

a. Dependent Variable: Employee Performance (Y)

Source: Data processed by SPSS 25 (2023)

1. Coefficients significant value of Work Collaboration (X1) obtained tcount value of 2.369 > ttable 1.66629, so it can be concluded that H1 is accepted which means there is a positive and significant influence of Work Collaboration (X1) on Employee Performance (Y) at Department of Energy and Mineral Resources of North Sulawesi Province, So Hypothesis 1 H1 can be accepted.
2. Coefficients significant value of Work Coordination (X2) obtained tcount value of 2.068 > ttable 1.66629, so it can be concluded that H2 is accepted which means there is a positive and significant influence of Work Coordination (X2) on Employee Performance (Y) at Department of Energy and Mineral Resources of North Sulawesi Province, So Hypothesis 2 H2 can be accepted.
3. Coefficients significant value of Work Discipline (X3) obtained tcount value of 4.149 > ttable 1.66629, so it can be concluded that H3 is accepted which means there is a positive and significant influence of Work Discipline (X3) on Employee Performance (Y) at Department of Energy and Mineral Resources of North Sulawesi Province, So Hypothesis 3 H3 can be accepted.

#### **Correlation Coefficient (R) and Coefficient of Determination (R<sup>2</sup>)**

The value of the correlation coefficient and the coefficient of determination in this research model can be seen in the model summary in Table 9 below:

**Table 9. Correlation Coefficient (R) and Coefficient of Determination (R<sup>2</sup>) Summary of the model**

Summary modelb					
Model	R	R Square	Adjusted R Square	std. Error of the Estimate	Durbin-Watson
1	.832a	.692	.678	.36126	1852

a. Predictors: (Constant), Work Discipline (X3), Work Collaboration (X1), Work Coordination (X2).

b. Dependent Variable: Employee Performance (Y)

Source: Data processed by SPSS 25 (2023)

In the model summary it can be seen that the correlation coefficient (R) produced in model 1 is 0.832. This shows work collaboration, work coordination and work discipline while having a strong relationship. The value of the coefficient of determination (R<sup>2</sup>) produced in model 1 is 0.692. This shows that the contribution of the independent variables, namely work collaboration (X1), work coordination (X2), work discipline (X3) to the dependent variable of employee performance is 69.2% and the remaining 30.8% is influenced by other variables not examined in this study. this research.

#### **Discussion**

#### **The Effect of Work Collaboration on Employee Performance On Department of Energy and Mineral Resources of North Sulawesi Province**

Based on the results of hypothesis testing that has been done, it shows that the work collaboration variable has a positive and significant effect on employee performance. This means employees at the Department of Energy and Mineral Resources in completing work together and the responsibility of individual employees to carry out tasks without waiting for orders from superiors. The results of this study are supported by Maimunah, Subiyanto and Herawati (2020) who found that collaboration has a positive and significant effect on performance. These results are not in line with the research findings of Deviantri and Annisa (2022) which state that collaboration has a positive and insignificant effect on performance.

#### **The Effect of Work Coordination on Employee Performance On Department of Energy and Mineral Resources of North Sulawesi Province**

Based on the results of hypothesis testing that has been done, it shows that the work coordination variable has a positive and significant effect on employee performance. This means the openness of employees to provide complete data and information to their superiors and the obedience of employees in carrying out instructions given according to the SOP at the Department of Energy and Mineral Resources of North Sulawesi Province. The results of this study are supported by Darmawati, Susilo (2019), and Darham, Johannes, Edward, Yacob (2022) who found that work coordination has a positive and significant effect on employee performance.

#### **Effect of Work Discipline on Employee Performance On Department of Energy and Mineral Resources of North Sulawesi Province**

Based on the results of hypothesis testing that has been done, it shows that the work discipline variable has a positive and significant effect on employee performance. This means that employee relations are very good with co-workers while working and leaders can be used as role models in working for the Department of Energy and Mineral Resources of North Sulawesi Province. The results of this study are supported by Siswati, Nadiatul Khoiroh (2019), and Trianto (2022) who found that work discipline has a positive and significant effect on employee performance.

#### **The Effect of Work Collaboration, Work Coordination, Work Discipline on Employee Performance On Department of Energy and Mineral Resources of North Sulawesi Province**

Based on the results of hypothesis testing that has been done, it shows that together the variables of work collaboration, work coordination, and work discipline have a significant effect on employee performance. This means that the quality of employees is able to complete work on time at the Department of Energy and Mineral Resources of North Sulawesi Province. The results of this study are supported by Darmawati, Susilo (2019), Maimunah, Subiyanto, Herawati (2020), Kusumawati, Fauzi, Amini (2022) who found that work collaboration, work coordination and work discipline have a significant effect on employee performance.

#### **Conclusion**

1. Partially, work collaboration has a positive and significant effect on employee performance at Department of Energy and Mineral Resources of North Sulawesi Province.
2. Partially work coordination has a positive and significant effect on employee performance at Department of Energy and Mineral Resources of North Sulawesi Province.
3. Partially work discipline has a positive and significant effect on employee performance at Department of Energy and Mineral Resources of North Sulawesi Province.
4. Work collaboration, work coordination and work discipline together have a significant effect on employee performance at Department of Energy and Mineral Resources of North Sulawesi Province.



**Suggestion**

1. There are several things that can be of concern to the Department of Energy and Mineral Resources of North Sulawesi Province regarding employee collaboration with the implementation of employee integrity in completing work together and the responsibility of individual employees to carry out tasks without waiting for orders from superiors.
2. Work discipline can be improved by: (a) supervising employees. (b) provide penalties for employees who do not comply with applicable regulations. Therefore, high work discipline will affect employee performance in achieving the targets set by the Department of Energy and Mineral Resources of North Sulawesi Province.
3. For future researchers, it is hoped that they can examine other variables outside of these variables that have been studied in this study in order to obtain varied results that can affect employee performance on Department of Energy and Mineral Resources of North Sulawesi Province.

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