Decision Analysis of Work Discipline and Employee Performance Variables Influenced by Motivation and Self-Efficacy Using the Path Analysis Method

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ARTICLE INFORMATION

A B S T R A C T

An organization that has a top-down type of command line wants its business to run smoothly, but sometimes there are obstacles due to differences in employee characteristics. Every organization has problems in improving the performance of its employees which are often affected by indiscipline at work. Work discipline is also problematic due to decreased employee confidence and work motivation. This research was conducted to create a research hypothesis regarding can work discipline and employee performance be influenced by motivation and self-efficacy. This research method uses a path analysis method whose data source is the results of questionnaire data collection involving several respondents from the West Java region of Indonesia. This research has found that the variables of self-efficacy and individual motivation do not partially influence discipline. However, these two variables have a significant influence on the discipline variable simultaneously at 39.4 percent. These two variables also influence employee performance. Then the combination of exogenous variables simultaneously has a significant influence on the performance variable of 67.9 percent. The contribution of this research is that every organization pays attention to employee character, self-efficacy, and motivation because it influences employee discipline and can improve employee performance in terms of productivity.

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1. INTRODUCTION

In the current era of globalization of excitation, every company is required to continue to exist and improve the business world by working more efficiently and effectively (Soehardi, 2022). To overcome this competition, every company has improved the performance of its employees to maintain the continuity of a smooth production process in the future. Organizations bring together people who are commonly referred to as employees or human resources to carry out organizational activities

(Juru, 2020). Human resources in an organization are the most important element in determining the progress of an organization so it can be said to be an organizational asset (Ruth Silaen et al., 2021). Productivity is very directly related to human resources, so it is very important to be considered by company leaders. If productivity increases, the company's goal of making a profit will also increase (Prayogi & Nursidin, 2018). Productivity has increased with the performance of employees who are in good human resource development because human resources are a very important asset in an organization (Laestary & Harmon, 2017; Sarjono et al., 2023). Every element in the organization is well integrated and able to carry out its role so that the employee's performance will be successful in his role (Maizu et al., 2019). Decision Analysis can also be done on the risk factors of the return process in fast-moving consumer goods logistics, not just the relationship between worker characteristics (Yuliawati & Brilliana, 2022). Another method is used to determine the relationship between entrepreneurship education and mentoring against entrepreneurial Intentions with the PLS-SEM method (Natalia & Sihombing, 2018).

Based on the background above, it can be formulated the problems that will be discussed to build hypotheses for research on how many effects of self-efficacy and work motivation variables on work discipline and employee performance variables using the path analysis method. The new approach of this research is that there is a systematic review of several articles which are analyzed based on the influence of exogenous variables on the endogenous variables. So that it proves strongly the positive influence of independent variables on dependent variables. This research was conducted to create a research hypothesis regarding how much influence the variables of exogenous variables have on the endogenous variables. It is hoped that many of the results of this research can be used as a reference by organizations that have programs to improve employee performance.

2. LITERATURE REVIEW

This section will discuss the method approach and assumptions from several previous studies as a reference that this research is made based on other references.

2.1 Regression Models

The regression model aims for each variable in the model to have a dependency on other models which shows it as an influential variable. The calculation of regression model predicted by other models is calculated using the observed correlation matrices for these variables so that there is statistical compatibility between these variables. The best model for theoretical progress is the most suitable of two or more models selected by the researcher as a result of the analysis (Garson, 2015). The regression model allows isolating the relationship between results and explanatory variables while other variables are held constant (Breheny & Burchett, 2015). The regression model can also be applied to logistics, a multivariable method for modeling the correlation between several exogenous variables and categorical endogenous variables, emphasizing medical research (Boateng & Abaye, 2019).

2.2 Path Analysis

The path analysis model is carried out where several variables have been carried out by other studies, including chronic disease variables, age, and function which directly affect the quality of human physical and spiritual life which directly affects the quality of human mental life. The relationship between age and human physical quality are variables that can be supported by good social relations using path analysis (Lima et al., 2020). A model of perceptions of aging in the elderly in Iran has found that it hopes to significantly and positively impact perceptions of aging (Yaghoobzadeh et al., 2018). The development of conceptual models of psychological, cognitive, and behavioral phenomena is the idea of path analysis using multivariate techniques (Barbeau et al., 2019). Path analysis can also analyze the relationship between 3 exogenous variables and 1 endogenous variable with 1 mediator variable (Atikno et al., 2022). Another study used path analysis to analyze student satisfaction with different situations between male and female students (Santosa, 2022).

2.3 Exogenous Variables

The person's consideration of his ability to achieve the desired or specified level of performance, which will influence action is defined as self-efficacy (Maddux, 2016). The

definition of self-efficacy is confidence in facing and being able to solve problems, each individual can overcome obstacles and can even achieve goals according to the target (Stagg et al., 2020)**.** The variable of motivation is a very determining factor for company performance, without motivation, good performance will be difficult to achieve (Fachreza et al., 2018). The human mental attitude that provides energy to encourage or direct positive activities to achieve needs that reduce bad activities is called work motivation (Sari et al., 2021; Souisa et al., 2023)**.** Another research adds work motivation variables in analyzing the effect of e-learning (Saintika et al., 2021).

The presence of a person's willingness to comply with all company regulations and applicable social norms is work discipline (Kafaei-Atrian et al., 2022; Rachman, 2022). Discipline is needed in an organization to prevent negligence, irregularities, or negligence which in the end is a waste of work (Siagian, 2018)**.** The achievement of work results obtained by a person within a certain period based on predetermined work standards (Molly et al., 2017).

3. RESEARCH METHOD

The steps of this research are made with an easy-to-understand process flow, while the research stages can be shown in Figure 1.

Based on Figure 1, the first step is to find out the background of the problems that cause an organization to improve employee performance. Then questionnaires to several respondents whose coverage area was in West Java, Indonesia. After there were results from the respondents, the researcher collected data from a selection of several respondents by limiting the time for answering the questionnaire to only 1 month. Then analyze the data by grouping respondent data into four criteria based on Table 1. The next step is processing the data for modeling by creating a path analysis model using the SPSS version 22.0 application by calculating substructural path analysis 1 and path analysis 2 with several hypothesis tests. The next step is analyzing the hypothetical results of the decision using the Path Analysis method. If the results do not meet the requirements, it will return to imperfect questionnaire data. If the results meet the

requirements, they will proceed to discussion and conclusions as the final step.
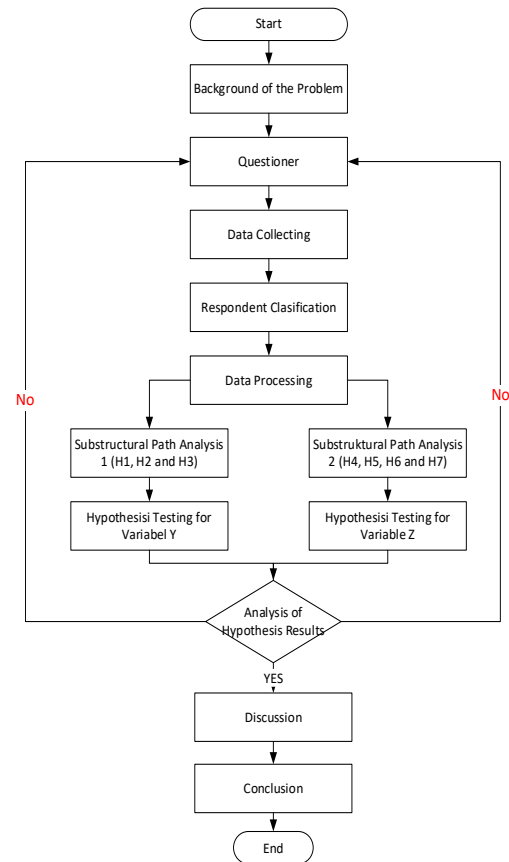
Figure 1. Study framework
Source: developed for this study (2023)

Based on Figure 2, there are two formulas used in this study.
Model Formula Hypothesis:
$$Y = PYX1.X1 + PYX2.X2 + e1 \qquad (1)$$
$$Z = PZX1.X1 + PZX2.X2 + PZY.Y + e2 \quad (2)$$
The results and discussion stages require an analysis of the t-test and f-test using the path analysis method to determine the effect of the correlation between variables. The last step is to conclude how big in percentage the influence of self-efficacy and work motivation variables on work discipline and employee performance variables using the path analysis method.

4. RESULT AND DISCUSSION

In this section, the results and discussion will be discussed based on the research stages starting from the identification, screening, and execution of articles that are suitable or worthy of analysis according to a systematic review, this is in line with previous research related to

systematic literature reviews (Kurnia, 2021).
4.1 Questionnaire Profile
The results of collecting questionnaire data

from the profiles of 77 respondents have been disseminated in the West Java-Indonesia area, as described in Table 1.

**Table 1**. Respondent criteria for filling in the questionnaire

No	Criteria	Result (person)				
1	Amount	77				
2	Gender	Men's=73		Women's=4		
3	Education	SLTA=52	D3=1	S1=9	S2=14	S3=1
4	Age	25-35=61	36-45=9	46-55=3	56-65=3	>66=1
5	Work experiences	< 10 years=60		10-30 years= 14		>30 years = 3

Source: data analysis (2023)

Based on Table 1, the number of correspondents who provided feedback was 77 respondents, mostly nearly 95 percent of the male sex who responded. Meanwhile, from the level of education, more than high school graduates were due to the distribution of questionnaires on social media groups in general and the range of 25-35 as much as 80 percent is the average age of respondents.

4.2 Path Analysis Model
This section was described in the form of circles and arrows, where a single arrow represents the influence of other variables is called the path analysis model. This study has produced a conceptual model, where path analysis of exogenous variables is coupled with paths of endogenous variables so that the circuit model is X1, X2, and Y to Z as depicted in Figure 2.
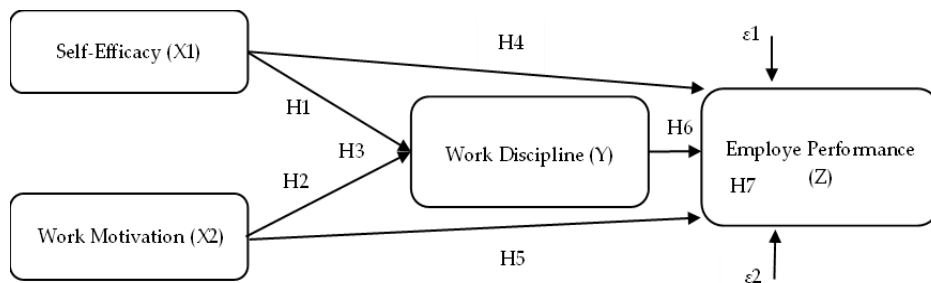
Fig 2. Path analysis models
Source: developed for this study (2023)

Based on Figure 2 the conceptual framework above, then: X1 and X2 as endogenous variables, and the variables Y and Z as exogenous variables.
Where known:
X1=exogenous/independent/self-efficacy variable
X2=exogenous/independent/work motivation variable
Y=endogenous/dependent/work discipline variable
Z=endogenous/dependent/employee performance variable
ε1=other endogenous variables

ε2=other endogenous variables

Research Hypothesis:
H1: does the variable X1 affect Y
H2: does the variable X2 affect Y
H3: does the variable X1 and X2 affect Y
H4: does the variable X1 affect Z
H5: does the variable X2 affect Z
H6: Does the variable Y affect Z
H7: does the variable X1, X2, Y affect Z
4.3 Substructural Path Analysis 1
This section will discuss the substructural aspects of path analysis 1, Do self-efficacy (X1) and work motivation (X2) affect work

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discipline (Y)? The data that has been collected is then input into the SPSS software version 22.0 to be able to find out the results. After the data is entered into the application, the first substructure path analysis is generated (Table 2).

Table 2. Coefision regression of path analysis 1

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.697	6.075		3.571	0.001
	Total_X1	0.028	0.203	0.014	0.139	0.890
	Total_X2	1.505	0.244	0.621	6.167	0.000
a. Dependent variable: Total_Y						

Source: data analysis (2023)

Table 2 shows that statistically, the output from the coefficient table above is the equation taken from formula (1). The simulation results that have been carried out can find the value of the path analysis based on variable Y.

$Y = PYX1. X1 + PYX2. X2 + e1$

$Y = 0,014. X1 + 0,621. X2 + e1$

Hypothesis Testing (H1)

H0: Self-efficacy does not affect work discipline

H1: Self-efficacy affects work discipline

The first hypothesis results from the variable X1 whether it affects Y, then the calculated T value obtained for variable X1 was 0.139, resulting in a significant effect of 0.890 because the result is more than the tolerance value of 0.05 ($0.890 > 0.05$) so it was decided that the self-efficacy variable did not affect the work discipline variable. Then the decision H0 is accepted and H1 is rejected.

Hypothesis Testing (H2)

H0: Work motivation does not affect work discipline

H1: Work motivation affects work discipline

The second hypothesis results from the variable X2 whether it affects Y the results of the T value on the variable X2 produce some 6.167, resulting in a significant effect of 0.000 because the result is more than the tolerance value of

0.05 ($6.167 > 0.05$) so that work motivation does not affect work discipline. then the conclusion is that H0 is accepted and H1 is rejected.

Hypothesis Testing (H3)

H0: Self-efficacy and work motivation do not affect work discipline

H1: Self-efficacy and work motivation affect work discipline.

Answering the question of how much influence X1 and X2 have on Y? Through processing the calculated F-value data, a value of 24.036 is obtained with a note that the probability level of the p-value is 0.000. If the results of this observation are much smaller than 0.05 ($0.000 < 0.05$) then it can be concluded that H0 is rejected and H1 is accepted. The results of this study prove that the variables of self-efficacy and work motivation simultaneously have a significant effect on work discipline variables. Meanwhile, the contribution of self-efficacy and work motivation to work discipline is 39.4 percent, while the remaining 60.6 percent is influenced by other variables.

4.4 Substructural Path Analysis 2

The results of the substructural aspects of path 2 analysis using SPSS version 22.0 software, namely self-efficacy variables, work motivation variables, and work discipline variables, affect employee performance variables (Table 3).

Table 3. Coefisiens regression of path analysis 2

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.869	3.816		0.228	0.820
	Total_X1	0.102	0.118	0.064	0.866	0.389
	Total_X2	0.164	0.174	0.085	0.940	0.350
	Total_Y	0.590	0.067	0.745	8.753	0.000
a. Dependent Variable: Total_Z						

Source: data analysis (2023)

Table 3 shows that statistically, the output from the coefficient table above is the equation taken from formula (2). The simulation results that have been carried out can find the value of the path analysis based on variable Z.

$$Z = PZX1. X1 + PZX2. X2 + PZY. Y + e2$$
$$Z = 0.064. X1 + 0.085. X2 + 0.745. Y + e2$$

Hypothesis Testing (H4)

H0: Self-efficacy does not affect employee performance

H1: Self-efficacy affects employee performance

The fourth hypothesis results from the effect of variable X1 on Z that the calculated T value for variable X1 was 0.064 because the result is 0.038. After all, the significance level was more <0.05 (0.038<0.05) so self-efficacy affects performance. Meanwhile, from these results, the self-efficacy variable affects the employee performance variable so H0 is rejected and H1 is accepted.

Hypothesis Testing (H5)

H0: Work motivation does not affect employee performance

H1: Work motivation affects performance

The fifth hypothesis results from the effect of variable X2 on Z the T value calculated for variable X2 was 0.085 because the result is 0.350. After all, the significance level was more < than 0.05 (0.000<0.05) so it affected performance. Based on this explanation, Meanwhile, from these results, the work motivation variable affects the employee performance variable so H0 is rejected and H1 is accepted.

Hypothesis Testing (H6)

H0: Work discipline does not affect performance

H1: Work discipline affects performance

The results of the sixth hypothesis from how much influence the Y variable has on Z, the calculated F value for the work discipline variable is 8.753. While the results of t count the result is 0.000. Then it was decided that the significance level was more <0.05 (0.000 <0.05) so it was decided that work discipline affects performance, meaning that H0 is rejected and H1 is accepted.

Hypothesis Testing (H7)

H0: Self-efficacy, work motivation, and work discipline do not affect employee performance

H1: Self-efficacy, work motivation, and work discipline affect performance

The results of data processing using the path analysis method, is there any influence between variables X1 and X2 on Z? So with this it can be concluded that the variables of self-efficacy, work motivation, and work discipline simultaneously have a significant effect on performance variables. From the data generated, it shows that there is a significant mutual influence with the calculation results <0.05 (0.000 <0.05). Therefore it can be concluded that hypothesis H0 is rejected and hypothesis H1 is accepted, meaning that it proves that the contribution of self-efficacy, work motivation, and work discipline to employee performance is 67.9 percent, while the remaining 32.1 percent comes from other variables.

4.5 Research Gap with Previous Research

There is a simultaneous influence between self-efficacy and work motivation on employee work discipline between these variables. Other studies have also produced the effect of work motivation on work discipline (Ramadhani & Lestariningsih, 2020). However other research has produced a hypothesis that the two individuals do not affect employee work discipline showing that the work motivation variable has a significant effect on the work discipline variable (Susanty & Baskoro, 2013). Previous hypotheses were carried out by other researchers, if an organization wants to increase work discipline through the variable self-efficacy of its employees, then the organization must be able to increase the skill ability of employees to handle tasks so that employees do not experience difficulties. Then the organization must also be able to increase its mental strength so that employees can survive in difficult conditions. Likewise, if the organization wants to build work discipline, then through work motivation, the company must be able to provide a sense of responsibility, increase salaries, build good working relationships between employees, improve working conditions, and provide rewards to these employees.

Self-efficacy has a significant and positive effect on employee performance variables based on Table 2. While other studies have found that self-efficacy has a positive but not significant effect on employee performance (Noviawati, 2016). The variable of work

motivation has a significant and positive effect on employee performance, therefore if an organization wants to improve employee performance through work motivation variables, then the organization must be able to build work motivation with the work indicators themselves, rewards from superiors, job responsibilities, salary increases, and promote good working relations (Murti & Srimulyani, 2013). Work discipline has a significant and positive effect on employee performance based on this study. Furthermore, previous research shows the same thing (Nurhayati & Putra, 2014; Pramularso, 2017; Syafrina, 2017) Work discipline has a significant and positive effect on employee performance. The previous hypothesis carried out by other studies, if an organization wants to improve employee performance through work discipline variables, then the organization must be able to increase compensation, provide exemplary leadership, pay attention to employees, and apply good habits to uphold employee discipline.

The variables of self-efficacy and work motivation simultaneously have a significant effect on employee performance which can be found in Table 3. Previous research discussed how to improve employee performance. The results of his research are that companies must improve work quality, prioritize timeliness, provide initiative at work, improve workability, and have good communication. All of these variables must be carried out together, consistently, and continuously (Arista et al., 2022).

5. CONCLUSION

This study has found some results from the previous section which has carried out data calculations from the results of collecting questionnaires from 77 respondents. The results of data calculations through the SPSS version 20 application have been able to process research hypothesis data and answer the question of whether self-efficacy and work motivation can affect work discipline and employee performance using the path analysis method. This study resulted in the magnitude of the influence of the contribution of self-efficacy and work motivation on work discipline at 39.4 percent. Meanwhile, the contribution of self-efficacy, work motivation, and work discipline to employee performance is 67.9 percent. This

research is expected to be used as a reference by other studies that every organization in improving employee performance must pay attention to employee discipline, increase work motivation, and empower employee efficacy. The limitations of this research are mainly due to the selection of 2 exogenous variables, namely self-efficacy and work motivation as well as the influence of other variables from endogenous variables that have not been included in this study. For future research, the author recommends further observing other variables that affect work discipline using the SEM PLS method because there will be more variables included so that the hope can answer how much other variables affect work discipline.

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