



Analysis Of Leadership Style And Technology Application Using Work Discipline As A Mediation Variable On Employee Achievement At Padang Cement Company

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ARTICLE INFO

Article history:

Received Aug 25, 2022
Revised Aug 30, 2022
Accepted Sep 06, 2022

Keywords:

Employee achievement,
leadership style,
technology application,
and work discipline.

ABSTRACT

The purpose of this study was to determine and analyze the influence of leadership style and the application of technology using work discipline as a mediating variable on employee achievement at PT. Padang Cement. Achievement is an important thing that must be considered by company management in managing company resources or employees. Aspects that affect employee achievement are leadership style, application of technology to employee achievement, and perceived work discipline by employees. In this case, the researcher focuses on the perceived work discipline variable as a mediating variable that links leadership style and application of technology to employee achievement. The population in this study were employees at PT Semen Padang with a sample of 162 people by using kretjie table. The analytical method used is descriptive statistical analysis and factor description analysis using SmartPLS 3.0 software. The results showed that leadership style had a negative and significant effect on work discipline; the application of technology has a positive and significant impact on work discipline; leadership style, application of technology, and work discipline have a significant impact on employee achievement; work discipline as a mediating variable has an effect and fully mediates on leadership style on employee achievement and the application of technology on employee achievement also partially mediates.

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1. INTRODUCTION

According to Meyer et al (2018) performance management aligns the individual goals of employees with the organizational goals associated with them. To achieve this harmony requires work discipline. Work discipline has a very big influence on the company in

achieving its goals. With the development of increasingly advanced technology, it is easier for companies to control employee achievements, quickly and precisely. Technological developments also have a positive impact on the interaction between members of each work section in the company which makes it easier for employees to carry out work operations. This approach, used in most leadership training programs, is useful but limited to first-level competencies (Avolio and Bass 2004).

The problem of employee achievement is not only a form of employee professionalism, but also affects the achievement of goals in the company. The application of technology in decision making, employee discipline is needed as a measure of potential discipline carried out by employees in a company, employee achievement usually fluctuates.

The ability of leaders must be improved in developing, improving and innovating in optimizing the development of the company to be able to survive against competition. Leaders must be able to apply technology to control employee achievement. Through active management by exception, leaders monitor performance and take action when needed Bass and Avolio (2017).

PT. Semen Padang, a company engaged in the management of raw materials and cement products with a large organization, has many employees in various sectors of work, making it difficult to control employee performance. PT. Semen Padang made changes so that the company could survive and compete and increase production capacity and net profit. To see an increase in the quality of performance and production results, the company provides production targets every year. If there is a decrease, the influencing factor is the lack of discipline of employees and the lack of enthusiasm of employees in working due to allowances cuts, overtime restrictions, production service allowances (Jasprod), which have an impact on the amount of employee income and restrictions on the use of company facilities for reasons of efficiency.

Responding to these problems PT. Semen Padang applies new technology to support production. At the Indarung VI plant, equipment and machines with the latest and most advanced technology are used for the cement industry. With this equipment, milling and combustion processes can be carried out with more production capacity and cement export production has increased. Based on the background of the problems above, the authors are interested in conducting further research on: "Analysis of Leadership Style and Application of Technology Using Work Discipline as a Mediation Variable on Employee Achievement at PT. Semen Padang.

Jaya's research (2015) states that the transformational leadership style has a positive and significant effect on work discipline. By applying a transformational leadership style, the employee's work discipline is higher. Transactional leadership style has a positive and significant effect on work discipline by applying transactional leadership style, the higher the employee's work discipline. Autocratic leadership style has a positive and significant effect on work discipline by applying autocratic leadership style, employee work discipline will be higher.

The results of this study were also stated by Wardani (2016) who stated that leadership style had an effect on employee work discipline. With a leadership style that has given freedom of responsibility in carrying out tasks and always based on the rules and norms that apply inside and outside the company, it will improve employee work discipline. Based on this description, it can be concluded that the first hypothesis in the

study is stated as follows: "H1. It is suspected that there is a positive and significant influence of leadership style on work discipline".

Fadila (2019) states that the application of technology can trigger employee work discipline. The attendance application that is applied will trigger employees to be disciplined in their work because the attendance record is well structured and cannot be manipulated. Research conducted by Suwandi (2018) states that with the emergence of sophisticated technological equipment that facilitates human efforts to increase discipline in work to face competition between companies or institutions. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H2. It is suspected that there is a positive and significant influence on the application of technology to work discipline".

Several studies have shown that leadership style has an influence on employee achievement, Siswanto (2017). Leaders can apply an instructional leadership style to employees with low levels of maturity. The application of a participatory leadership style, the leader conducts open communication that aims to share ideas with employees of one office. The delegation-type leadership style tends to shift the responsibility for delegating authority in the decision-making process.

Handayani (2019) states that leadership style is a way for leaders to influence their subordinates which is expressed in the form of behavior or personality patterns. Tasnim's research (2020) states that transformational leadership style has a significant and positive influence on employee achievement. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H3: It is suspected that there is a positive and significant influence of leadership style on employee achievement".

Several studies show that the application of technology has an influence on employee achievement (Imran, 2014), with technological advances employees tend to be motivated to do their jobs and employee performance increases.

Then (Muzakki, 2016), the use of IT that is easy to learn, controllable, clear and understandable, flexible, skilled and easy to use affects employee performance. The ease of using IT that is implemented properly and appropriately will support employee performance optimally. IT benefits such as working faster, better performance, increasing productivity, making work more effective, making work easier which affects employee performance optimally. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H4: It is suspected that there is a positive and significant effect of technology application on employee achievement".

Several studies show that work discipline has an influence on the achievement of Thaief employees (2015) This means that employee discipline is considered very high, in compliance with rules, compliance with labor standards and work ethics. Employee performance is a very positive response from the three elements, namely timeliness, quality of work and quantity of work.

The same research conducted by Idris (2020) states that work discipline has an influence on employee achievement. This means that the higher the employee's work discipline, the higher the employee's achievement. Research conducted by Amir (2022) shows that leadership style, work discipline, and training simultaneously have a significant effect on employee performance. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H5: It is suspected

that there is a positive and significant influence of work discipline on employee achievement".

The results of Supriyanto's research (2018) state that work discipline can mediate the influence of leadership style on employee achievement. High work discipline by employees directly leads to achievement, so in this case the management must be able to evaluate each employee at work in order to be able to avoid matters relating to work discipline applied to employees. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H6: It is suspected that there is an influence of work discipline in mediating leadership style on employee achievement".

Dhanurdhara (2022) states that work discipline can mediate the effect of technology application on employee achievement, meaning that the application of fingerprint attendance makes employees feel afraid to cheat in terms of working hours, this can indirectly improve employee discipline, and can result in better performance. . The more effective the application of fingerprint attendance , the more employee discipline will increase which can indirectly improve employee performance. Based on this description, it can be concluded that the first hypothesis in the study is stated as follows: "H7: It is suspected that there is an influence of work discipline in mediating the application of technology to employee achievement".

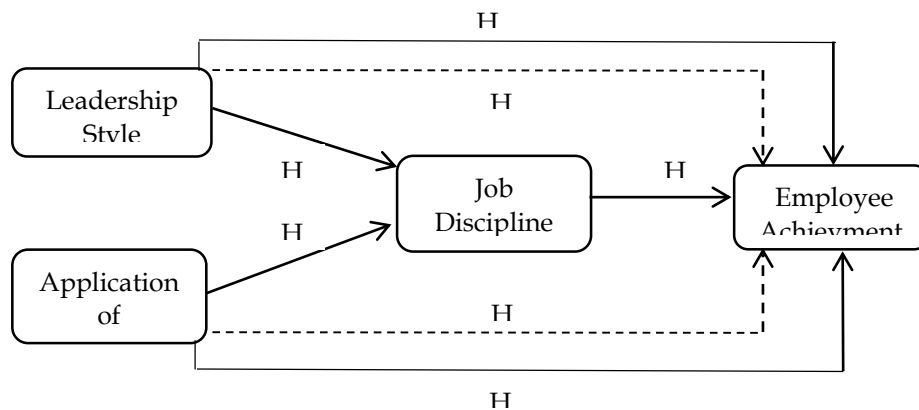


Fig 1. Research Framework

2. RESEARCH METHOD

The type of research used is causative which is research that aims to determine the causal relationship of a phenomenon or problem solving under study to see how far the influence between research variables. This research was conducted using quantitative methods, using statistical analysis to empirically test the relationship between research variables (Sekaran, 2017). The data sources needed in this study consist of primary data and secondary data (Sekaran, 2017).

- a. Primary data is data obtained directly by PT Semen Padang through a research questionnaire survey to research respondents.
- b. Secondary data is data obtained indirectly including through literature studies, international journals, textbooks, internet and other relevant sources and can be used as references in research.

To obtain the data needed in this study, the researchers conducted a survey by providing or distributing questionnaires with a list of statements about leadership style, technology application, work discipline and employee achievement in the hope that respondents would respond to the list of statements.

To analyze data by describing or describing the data that has been collected as it is without intending to make valid conclusions to be generalized. The descriptive statistics in this study include: data preparation in the form of tables, graphs, median calculations, mean, standard deviation, percentage calculation, and TCR (Sekaran, 2017). In this analysis, the actual condition of each variable will be explained. In the first stage, the percentage of respondents' answers is calculated, then the average score of each statement item along with its indicators is calculated and calculates the respondent's achievement (TCR).

Table 1. Respondents Level of Achievement

TCR (%)	Criteria
81 - 100	Very Good
61 - 80	Well
41 - 60	Pretty Good
21 - 40	Not Good
0 - 20	Very Not Good

Then the analysis was carried out using Smart PLS software starting from the measurement model (outer model), model structure (inner model) and hypothesis testing (Ghozali, 2016). PLS according to (Ghozali, 2016), is an approach from covariance-based Structural Equation Modeling (SEM) to variant-based. Covariance-based SEM generally tests causality/theory, while PLS is more of a predictive model. PLS is the method and used as confirmation of the study theory.

3. RESULTS AND DISCUSSIONS

Respondents in this study were employees consisting of gender, age, education, length of service, level of position, and department. The most male respondents participated with a percentage of 94.44% while the rest were female respondents. Meanwhile, when viewed from the age of the respondents, the age range of 36 - 40 years is the most dominant with a percentage of 37.7% and age 25 years with the lowest percentage of 3.7%. Furthermore, the education taken by the respondents, generally graduated from S1 with a percentage of 46.90% with a dominant tenure of > 5 years with a percentage of 82.09% with the highest level of employee positions as staff of 58.6% with the number of employees in the department with the highest number in the low-end production section of 30.24%.

To carry out the analysis, an evaluation of the measurement model is carried out to verify the manifest variables (indicators) and constructs that can be tested further. SEM PLS, Evaluation of the measurement model is known as the outer model or measurement model. The measurement model is a model that displays the relationship between a construct and an indicator of a variable (Hair et al., 2014).

Convergent Validity is construct validity that measures the extent to which a construct is positively correlated with other constructs (Hair et al., 2014). Convergent validity relates to the principle that the measures of a construct should be highly correlated. Indicators with a high loading factor have a strong contribution to explain the

latent variable and vice versa, indicators with a low loading factor have a weak contribution to explain the latent variable. The rule of thumb used for convergent validity is outer loading > 0.7 . If the value of outer loading > 0.7 then it is said that the indicator is valid and otherwise an indicator must be removed from the measurement model when the value of outer loading is < 0.7 and then the model is calculated again. The outer loading value of each research variable can be seen in the figure and table below.

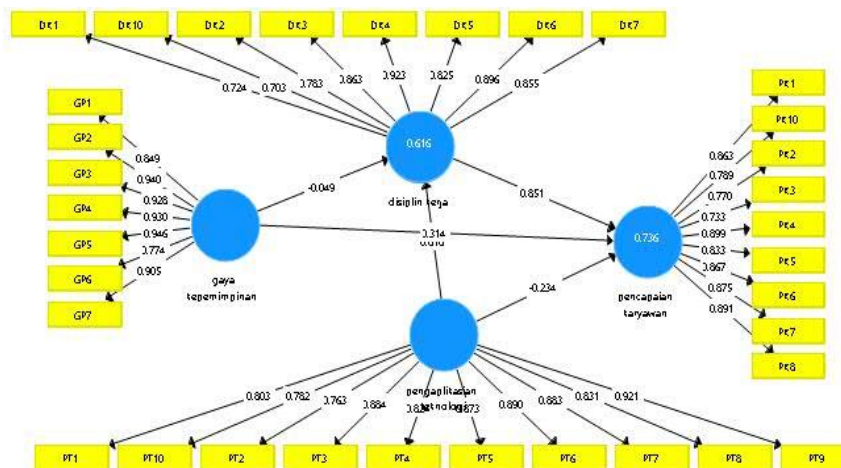


Fig 2. Outer Model

The AVE value describes the variance or diversity of the manifest variables that can be owned by the latent variable. Thus, the greater the variance or diversity of the manifest variables that can be contained by the latent variable, the greater the representation of the manifest variable on the latent variable. The AVE value is acceptable if the value is above 0.5, meaning that more than half the diversity of the indicators can explain the latent variable. The results show that all variables have an AVE value above 0.5.

Discriminant validity refers to the extent to which certain constructs in the same model differ from each other (Barclay, Higgins & Thompson, 1995). To test discriminant validity there are three types of analysis used: Fornell and Larcker criteria, cross loadings and heterotrait-monotrait ratio (HTMT). Based on the Fornell and Larcker criteria, cross loading and HTMT ratios have met the requirements of discriminant validity and are considered valid.

The reliability test is intended to regulate how much a measurement can measure with a stable or consistent instrument (Hair et al. 2010). A construct is declared reliable if the value of Cronbach's alpha and composite reliability > 0.7 (Hair et al. 2010). A reliability value above 0.7 means that the established indicators have been able to measure each construct well or it can be said that the four measurement models are reliable.

Furthermore, the value of R square is determined to predict and see how much influence the exogenous variables contribute simultaneously (together) on the endogenous variables. According to (Chin, 1998) the R-square value of 0.67 is categorized as strong, then if the value is 0.33 it is categorized as moderate and 0.19 is said to be weak. The results show that the contribution of the influence given by

leadership style, application of technology and work discipline to employee achievement is 0.731, so it can be said that the contribution of influence given by leadership style, application of technology and work discipline to employee achievement is strong, indicating a strong model prediction accuracy. Then the contribution of influence given by leadership style, application of technology to work discipline is 0.661 then the contribution of influence given by leadership style, application of technology to work discipline is moderate, thus indicating moderate model prediction accuracy.

According to (Chin, 1998) explains that a model shows a good predictive relevance when its Q^2 value is greater than zero which indicates a good exogenous latent variable (appropriate) as an explanatory variable capable of predicting the endogenous latent variable. The test results show that the structural model obtained has a good prediction of relevance. This means that leadership style and application of technology are appropriate as explanatory variables that are able to predict work discipline then employee achievement, application of technology and work discipline are appropriate as explanatory variables that are able to predict employee performance achievement.

Path Coefficient will describe the contribution or influence between variables, carried out through the bootstrapping procedure . Path coefficient evaluation is used to show how strong the effect or influence of the independent variable on the dependent variable. In short , the path coefficient is used to determine whether the research hypothesis is accepted or rejected. The hypothesis is accepted or rejected can be seen on the value of the t-statistical test. If the t statistic is above 1.96 (t table) and the significance (p value) is less than 0.05, the hypothesis is accepted. The path coefficient results report will be summarized below.

Table 2. Hypotheses Testing

Hypotheses	Original Sample (O)	T Statistics (O /STDEV)	P Values	Explanation
H1 : GP -> DK	-0.049	-0.801	0.004	Significant
H2 : PT -> DK	0.818	17.505	0.000	Significant
H3 : GP -> PK	0.314	4.619	0.000	Significant
H4 : PT -> PK	0.234	2.607	0.009	Significant
H5 : DK -> PK	0.851	15.603	0.000	Significant

The results of hypothesis testing are as follows:

- a. H1: Leadership style has a negative and significant effect on work discipline.
- b. H2: The application of technology has a positive and significant impact on work discipline.
- c. H3: Leadership style has a positive and significant influence on employee achievement.
- d. H4: The application of technology has a positive and significant impact on employee achievement.
- e. H5: Work discipline has a positive and significant influence on employee achievement.

This study also uses mediating variables. According to Hair et al. (2014) argues that the mediation effect explains the influence between the independent variable and the dependent variable through the mediating variable. Tests to determine whether the work

discipline variable mediates the leadership style variable on the employee achievement variable and the work discipline variable mediates the technology application variable on the employee achievement variable, the test results can be seen in the table below

Table 3. Mediation Testing

Hypotheses	Original Sample (O)	T Statistics (O/STDEV)	P Values	Explanation
H1 : GP -> DK -> PK	-0.042	0.781	0.035	Full mediation
H2 : PT -> DK -> PK	0.696	9.843	0.000	Partial mediation

The results of the mediation test are as follows:

- a. H6: Work discipline can have a full mediating effect of leadership style on employee achievement.
- b. H7: Work discipline has a partial effect of mediating the application of technology on employee achievement

4. CONCLUSION

Based on the analysis of the relationship between the variables in this study, it is stated that: "Leadership style has no significant effect on work discipline; the application of technology has a positive and significant impact on work discipline; leadership style has a positive and significant influence on employee achievement; the application of technology has a positive and significant impact on employee achievement; work discipline has a significant influence positive and significant impact on employee achievement". Indirect testing of variables in research This study found that: " Work discipline can have a full mediating effect on leadership style on employee achievement, because work discipline as a mediating variable has a significant influence in mediating leadership style and employee achievement . ; work discipline has a partial effect of mediating technology application on employee achievement, because work discipline as a mediating variable has a significant influence in mediating technology application and employee achievement.

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