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## HUMAN RESOURCE MANAGEMENT | RESEARCH ARTICLE

# Learning Motivation as Mediating Variable on The Effect of Transformational Leadership on Job Performance

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**Abstract:** This study examines and analyzes the effect of transformational leadership on learning motivation and job performance and the effect of learning motivation as a mediating variable. This research was conducted by distributing questionnaires to research respondents, namely employees in factory 1 grade 5, 6, and 7 (operator level) at PT. Petrokimia Gresik, Indonesia, with 207 employees as the respondents. Data were analyzed using Structural Equation Modeling (SEM) Partial Least Square (PLS). Findings: The results of this study state that transformational leadership has a significant positive effect on learning motivation and job performance. Learning motivation also has a significant positive effect on job performance. In addition. The existence of this research has implications that state that in increasing employee job performance, transformational leadership and learning motivation need to be improved. Learning motivation acts as a partial mediating variable in mediating the relationship between transformational leadership and job performance, which later becomes a new finding in this study.

**Keywords:** Transformational Leadership, Job Performance, Learning Motivation.

**JEL Classification Code:** M12, M54.

## 1. INTRODUCTION

PT. Petrokimia Gresik as one of the State Owned Enterprises in Indonesia is the most complete fertilizer factory in Indonesia. The quantum of Petrokimia Gresik's fertilizer production in 2020 reached 4.79 million tons or 104% of the 2020 RKAP, which was 4.61 million tons. Meanwhile, non-fertilizer production reached 3 million tons or 105 percent of the 2020 RKAP, which was 2.8 million tons. Currently, PT. Petrokimia Gresik strives to maintain optimal productivity (PT. Petrokimia Gresik Annual Report, 2020). In addition, the company needs to pay attention to the quality of the company's human resources. Human Resource Management (HRM) in the industrial era 4.0 towards 5.0 currently plays a very important role in a company. The success of a company in achieving its goals is certainly very dependent on the ability of human resources owned by the company to carry out their duties. Currently, human resources are required to be able to perform brainstorming towards an activity or problem encountered which of course no longer tends to rely on day-to-day repetition-based activities.

Based on PT. Petrokimia Gresik's 2021 annual report, the Petrokimia Gresik Human Resource Management System focuses on meeting the competencies and needs of personnel in all work units. To support this fulfillment, the Company has designed and established policies related to employee recruitment to ensure the availability of employees with adequate competence to support the Company's performance. In order to optimize efforts to increase employee competence, support is needed through various training programs, both internal and external.

One of the aspects addressed in the field of HRM is job performance. Every company certainly wants every employee to have good performance so that the company can run well. Moehariono

(2012) defines that performance is a description of the level of achievement of the implementation of a program of activities or virtues in realizing the goals, objectives, vision and mission of the organization as outlined through the strategic planning of an organization. From this understanding, a company will always try to improve employee performance in the hope that the company's goals will be achieved.

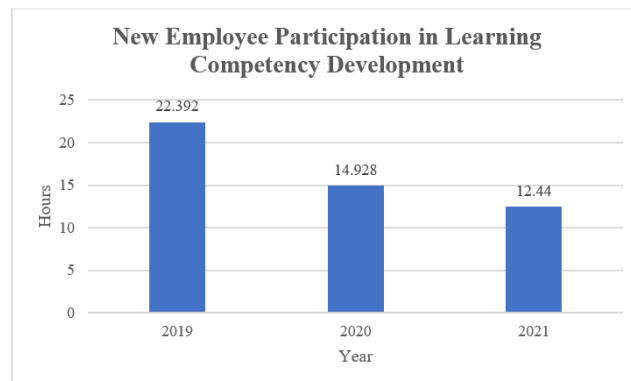
Job performance refers to how well a person performs their job duties and responsibilities. This is usually evaluated by employers or their supervisors and can be measured in a number of ways, such as meeting job objectives, completing assignments on time, adhering to company policies and procedures, and contributing to overall organizational success. Good job performance is important for both the individual and the company they work for. When an employee performs well, they are more likely to receive recognition, promotions and raises. On the other hand, poor job performance can result in disciplinary action, demotion or termination of employment. To improve job performance, employees can set clear goals for themselves, seek feedback from their supervisors and colleagues, and participate in training and development programs to enhance their skills and knowledge. It is also important for employers to provide clear expectations and feedback, as well as opportunities for growth and development, to help their employees succeed in their roles.

One of the problems related to employee performance experienced at PT. Petrokimia Gresik is related to the variation of raw materials at PT. Petrokimia Gresik which requires competency development not only to develop existing processes. This happens in various circles of employees, especially new employees. New employees are synonymous with the younger generation as the forerunners of the company's successors in order to continue to achieve sustainability. However, new employees tend to need time to adapt to the work rhythm at PT. Petrokimia Gresik. Based on existing data, Turn Around's completion plant Ammonia 1A was delayed for 23 days, which should have been completed in 22 days to 45 days. This was due to the occurrence of work errors by the new operators during start-up at the I-A Ammonia Plant so that repairs had to be carried out. Furthermore, the Turn Around's completion on plant Ammonia 1B also experienced a delay of 43 days due to a lack of competence related to additional work, which took quite a long time. The delayment on Turn Around's completion on plant Ammonia 1B also has an impact on Turn Around's completion plant Urea 1B due to the delay of TA duration of Ammonia Factory I-B causes TA duration of Urea I-B and bagging-supporting was not achieved because it was waiting for the readiness of raw materials from the I-B Ammonia Factory.

Problems related to settlement Turn Around mostly due to problems in the competence of Human Resources. Lack of understanding and competence at work (especially for new employees) results in settlement Turn Around does not match the proper target, so that it can result in the completion of delays in the completion of subsequent works due to interrelated work. This can have a negative impact in the future for the sustainability of the company. Problems with the competence or performance of employees at PT. Petrokimia Gresik are based on a lack of motivation to take part in training/learning related to work. The following presents data related to motivational problems through participation in training or learning. Based on Figure 1, new employee participation data in competency development for 2019-2021, show that participation of new employees at PT. Petrokimia Gresik experience a decrease in interest in participating in learning/training from year to year. This can have a negative impact on the sustainability of the company considering that if employees' interest in participating in learning/training is low it can have an impact on their performance related to the sustainability of the company. Of course there are reasons why there is a decrease in employee motivation in conducting training, both internally and externally.

Employee motivation in participating in learning/training to improve their performance is inseparable from how the leader supports it so that employees can participate in training/learning optimally. Sometimes problems related to this occur when the leader needs an employee to settle down and carry out the tasks that have been directed at the same time as training in another place, so that employees cannot attend training due to lack of support from the leader. There is a need for

transformational leadership, namely a leadership style that inspires followers to put aside personal interests for the good of the organization. If leaders are able to apply a transformational leadership style, employee performance will improve (Robbins & Judge, 2009).



**Figure 1. New Employee Participation in Learning Competency Development**

There have been many leadership concepts coined by organizational behavior experts in the world, many and varied, such as the transactional leadership style (Gibson et al., 2000), transformational (Hoy & Miskel, 2008), and situational (Hersey & Blanchard, 1974). All of these concepts convey and imply that leadership has a goal of increasing awareness, motivation, commitment, and helping subordinates achieve high performance results. Furthermore, it will have an impact on improving the performance of organizations, companies or corporations. Transformational leadership is a leadership style that involves inspiring and motivating employees to achieve their best potential and strive for excellence (Yukl, 1999). This leadership style has been shown to have a positive impact on job performance. Transformational leaders inspire their employees by providing a clear vision and direction for the organization, setting high expectations, and encouraging employees to think creatively and take risks. They also provide individual support and coaching to help employees reach their full potential.

Some previous literature has shown that transformational leadership can increase job satisfaction, commitment, and performance among employees, as an example of research by Yulianti & Sanjaya (2018) which states that Transformational Leadership has a positive impact on job satisfaction and team performance. This is because transformational leaders create a positive and supportive work environment where employees feel valued and empowered to contribute to organizational success. Another problem related to leadership in BUMN, especially in PT. Petrokimia Gresik, is the rotation of leaders between BUMN which can change conditionsLeadership thus causing problems in employee performance. It is necessary to adjust people related to the new leader which can psychologically reduce the motivation of employees, so leaders need to quickly adapt to the rhythm of work in a new place. Based on the description above, the role of leadership is very important and central to improving employee performance in a company, either directly or indirectly.

PT. Petrokimia Gresik is required to be able to manage threats, opportunities and other issues in such a way as to support business sustainability. The sustainability of Pupuk Petrokimia Gresik's business is of course highly dependent on the performance of the employees in it. Based on the explanation regarding the problems regarding employee performance at PT. Petrokimia Gresik, a study is needed to find out how transformational leadership influences employee performance through learning motivation at PT. Petrokimia Gresik. From the searches carried out related to some of the research variables there is still no research that explains employee performance by integrating variables transformational learning mediated by learning motivation comprehensively. This is a research gap in this study so that it can be seen that the novelty of this research is the development of the Job Performance model by involving Transformational Learning and Learning Motivation comprehensively.

## 2. LITERATURE REVIEW

### 2.1. *The Relationship between Transformational Leadership on Job Performance*

Transformational leadership and job performance share a significant interrelationship. Prior research delving into the influence of transformational leadership on job performance encompasses studies by Chandrasekara (2019) and Matsunaga (2022). A number of these investigations affirm an empirically significant positive correlation between transformational leadership and job performance. Crucially, an affirmative relationship between leaders and employees forms a bedrock for improved outcomes, with specific emphasis on transformational leadership's noteworthy positive link to job satisfaction and job performance (Chandrasekara, 2019). Consequently, this research underscores the necessity for leaders to cultivate high-quality transformational leadership traits to enhance both employee job satisfaction and overall job performance. Moreover, Matsunaga (2022) further asserts that transformational leadership augments employees' job performance. The findings underscore that coupling transformational leadership with digital literacy empowers employees to sustain their performance levels. Transformational leaders adeptly employ vision-driven and compelling messaging to reframe complex challenges as lucrative opportunities. This strategic approach motivates followers to surmount personal apprehensions and attain ambitious goals, an accomplishment they might consider daunting without the leader's guidance (Siangchokyoo et al., 2020). This kind of inspiration fosters employee engagement and encourages unwavering commitment, even amidst organizational upheaval (Chen et al., 2019). Beyond individual employee performance enhancements, transformational leadership's positive impact extends to team performance as well (Yulianti & Sanjaya, 2018). In line with previous research, the first hypothesis of this study is as follows:

Hypothesis 1: Transformational leadership has a significant and positive effect on Job performance

### 2.2. *The Relationship between Transformational Leadership on Learning Motivation*

Based on the research that has been done, several previous studies stated that transformational leadership has a significant and positive effect on learning motivation. Research that supports the relationship between these variables is Afsar & Umrani (2020) and Karket al. (2018). The two studies compactly state that there is transformational leadership. Good work will be able to increase employee motivation in carrying out activities at work, such as motivation in carrying out learning (Learning motivation) at work. Leaders play a pivotal role in cultivating employees' willingness to learn and continuously update their knowledge across various facets of daily practice (Khaola & Coldwell, 2019). Transformational leaders focus on intrinsic motivation, facilitate employees' professional growth, and establish a shared vision (Yukl, 2009). Leithwood & Jantzi (2006) discovered that transformational leadership significantly fuels employees' inclination to refine their practices, motivating them to pursue enhanced learning and exert additional efforts in their work. Notably, transformational leadership frequently fosters an environment that inspires employees to tackle challenging and non-routine tasks, rendering their work more engaging and satisfying (Golden & Shriner, 2017).

Individuals driven by strong learning motivation are inherently inclined to embrace learning opportunities as they arise, potentially leading to the acquisition of fresh knowledge and skills. Furthermore, those with robust learning motivation view demanding tasks as avenues for personal growth and development, often soliciting feedback from peers to enhance their abilities (VandeWalle & Cummings, 1997). Consistent with prior research, the second hypothesis of this study is formulated as follows:

Hypothesis 2: Transformational leadership has a significant and positive effect on Learning Motivation

### 2.3. *The Relationship between Learning Motivation on Job Performance*

Learning motivation pertains to the impetus that initiates or sustains learning behavior, serving as the direct catalyst for learning itself. Through learning motivation, one can ascertain whether students or employees possess the inclination or willingness to learn, their preferences in learning, and the extent of their dedication to the learning process. Learning motivation is typically categorized as intrinsic motivation and extrinsic motivation (Ryan & Deci, 2000). A review of previous research reveals that learning motivation bears a significant and positive influence on job performance. Support for this correlation stems from studies conducted by Destianti et al. (2021), Ismail et al. (2010), and Liu (2020), all of which assert that robust learning motivation yields improved job performance. Within an organizational framework, supervisors provide essential support—encouraging employees to engage in training programs and apply newly acquired knowledge and skills in their roles. Moreover, effective communication practices, encompassing feedback provision, discussion encouragement, and transparent sharing of training-related information, are employed when managing training programs. This supervisory involvement significantly augments employees' motivation to learn. Heightened employee motivation to learn often culminates in enhanced job performance within the organization (Ismail et al., 2010). The correlation between employee training and the learning process is crucial, as employee learning motivation stands as a key factor influencing both performance and the efficacy of organizational training initiatives (Destianti et al., 2021; Liu, 2020). Learning motivation constitutes a theoretical construct, encapsulating the process of instigating, guiding, and sustaining goal-driven behavior. Fundamentally, it steers employees toward taking action to achieve objectives, fulfill needs, or meet expectations (Cook & Artino, 2016). In alignment with prior research, the third hypothesis of this study is formulated as follows:

Hypothesis 3: Learning motivation has a significant and positive effect on Job performance

### 2.4. *The Relationship between Transformational Leadership, Learning Motivation and Job Performance*

Learning motivation plays a mediating role between transformational leadership and job performance. This is substantiated by the research conducted by Ekhsan & Setiawan (2021), which illustrates how motivation effectively mediates the influence of transformational leadership on employee performance. Employees feel significantly supported in engaging with organizational learning initiatives when leaders are capable of mobilizing existing resources to complement, reinforce, and enhance the capabilities of all organization members, contributing to goal attainment (Ibrahim et al., 2022). High levels of learning motivation are indicative of correspondingly high employee performance, establishing a direct proportionality between elevated employee performance and strong motivation (Ek & Mukuru, 2013).

Moreover, alongside other factors that contribute to employee performance, work motivation serves as the foundational cornerstone for every employee's commitment to their job responsibilities. Such motivation can originate from within the employee or external sources. External motivation can stem from stimuli provided by leaders employing a transformational leadership style (Ekhsan & Setiawan, 2021). In practical terms, transformational leadership encompasses assigning challenging tasks, delineating job roles, and establishing work objectives that stimulate creative thinking, encourage innovative suggestions, foster effective problem-solving, and promote sound decision-making within the organization. Clearly, these practices have a positive impact on motivation and job performance, as they are construed as affirmative encouragement from leadership.

In this case, there are research results by Ekhsan & Setiawan (2021) which show that the effect of indirect transformational leadership to job performance through learning motivation is a significant partial because transformational leadership helps improve learning motivation which in the end can improve job performance for employees. Therefore, the fourth hypothesis in this study is:

Hypothesis 4: Learning motivation as a mediating variable on the relationship between Transformational leadership and Job performance

From several previous studies and the hypotheses formed, the conceptual framework of this research can be constructed as shown in Figure 2 below:

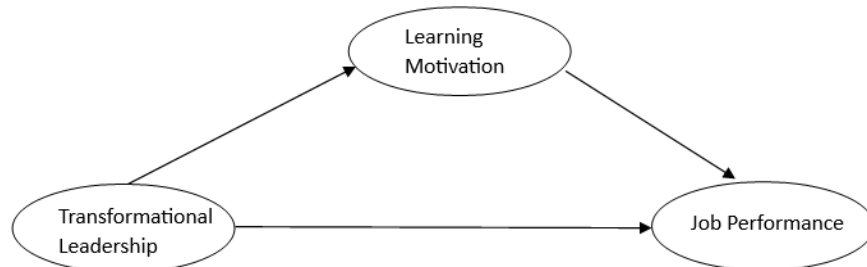


Figure 2. Research Concept Framework

### 3. RESEARCH METHOD AND MATERIALS

This study uses a survey method with a quantitative approach. In accordance with the research objectives, this research is for explanatory or confirmatory purposes, namely to explain the effect of the relationship between the variables studied through empirical hypothesis testing. The type of data used in this study is primary data which is original data collected for certain research purposes based on procedures that are appropriate to the problem. This study focuses on examining organizational behavior using evaluative data from members of the organization, namely employees in factory 1 of PT. Petrokimia Gresik. This is because the problems of the studied research variables are attached to factory 1 employees at the operator level of PT. Petrokimia Gresik. Therefore, the unit of analysis in this study is individual employees PT. Petrokimia Gresik. The population in this study were all factory 1 employees grade 5, 6, and 7 (operator level) at PT. Petrokimia Gresik. The research population according to what was stated was N = 217 people, which were distributed in several Grade, as outlined in the following table 1.

Table 1. Research Population Each Job Family

No	Department	Grade	Total	Total
1	IA Production Department	5A	18	106
		5B	0	
		6A	7	
		6B	81	
		7A	0	
2	IB Production Department	5A	12	72
		5B	0	
		6A	6	
		6B	54	
		7A	0	
3	Maintenance Department I	5A	22	39
		5B	1	
		6A	7	
		6B	9	
		7A	0	
	Total			217

Source: PT. Petrokimia Gresik Internal Data (2023)

This study employs the census method, which involves examining all population members. A sampling technique from the Non-Probability Sampling group, specifically the Saturated Sampling method, is used. In this study, the method entails collecting data from the entire population of Grade 5, 6, and 7 employees (operators) at PT. Petrokimia Gresik. Data collection involved distributing questionnaires to the employees of PT. Petrokimia Gresik. The design of the questionnaire was developed through a process of selecting, refining, and improving statement items for each dimension. The chosen and refined statement items were then integrated into the Likert Scale model, resulting in a questionnaire. The Likert Scale employs 5 response options, ranging from "Strongly Disagree" to "Strongly Agree." Subsequently, the data were analyzed using the Structural Equation Modeling (SEM) analysis model with the assistance of the SmartPLS computer software package.

#### 4. RESULTS AND DISCUSSION

general, the results of this study were divided into 2 (two) parts, namely the analysis of the validity & reliability of the questionnaire and the results of the SEM analysis.

##### 4.1. The Results of The Analysis of The Validity & Reliability of The Questionnaire

**Table 2. Validity & Reliability of Questionnaire**

Variable	Indicator	Outer Loading	Cronbach Alpha
Transformational Leadership	II1	0.668	0.892
	II2	0.809	
	II3	0.823	
	II4	0.784	
	II5	0.816	
	IM1	0.789	
	IM2	0.676	
	IM3	0.862	
	IM4	0.805	
	IM5	0.821	
	IS1	0.774	
	IS2	0.810	
	IS3	0.815	
	IS4	0.791	
	IS5	0.818	
	IC1	0.801	
	IC2	0.792	
IC3	0.840		
IC4	0.825		
IC5	0.613		
Learning Motivation	CWA1	0.791	0.708
	CWA2	0.818	
	CWA3	0.707	
	CWA4	0.518	
	IO2	0.563	
	IO3	0.714	
	IO4	0.572	
	PK1	0.822	
	PK2	0.779	
	PK3	0.784	
PK4	0.603		
Job Performance	TK1	0.813	0.719
	tk2	0.744	
	tk3	0.826	
	KK1	0.845	
	KK2	0.822	

Variable	Indicator	Outer Loading	Cronbach Alpha
	KK3	0.839	
	KMN1	0.824	
	KMN2	0.571	
	KMN3	0.643	
	KMD1	0.762	
	KMD2	0.653	
	KW1	0.808	
	KW2	0.859	
	KW3	0.851	
	EF1	0.829	
	EF2	0.868	
	EF3	0.841	

Based on the results in table 2, after testing validity (outer loading) and reliability (Cronbach Alpha), it can be seen that all indicators have an outer loading value of more than (>) 0.5 and all variables have a Cronbach Alpha value > 0.6. Thus, the questionnaire can be said to be valid and reliable.

#### 4.2. Analysis Results Structural Equation Modeling (SEM)

The data analysis process employed in this study utilizes the Structural Equation Modeling (SEM) approach, specifically the Partial Least Squares (PLS) method. In PLS, it is utilized to assess the relationship of each indicator with its corresponding construct and can be subjected to bootstrapping for testing the structural model, encompassing both the Outer and Inner models. The evaluation of each of these models will be elaborated upon as follows:

#### 4.3. Outer Model Evaluation

The evaluation of the outer model is conducted through the t-test, considering the p-value of each outer loading and outer weight. In this study, only the outer loading value is utilized, as the reflective-reflective model is deemed the most suitable indicator model. The outcomes of the outer loading for each indicator are presented as follows:

**Table 3. Outer Loading Results**

Variable	Indicator	Outer Loading	p-value	Information
Transformational Leadership	II1	0.668	0.018	Significant
	II2	0.809	0.014	
	II3	0.823	0.020	
	II4	0.784	0.011	
	II5	0.816	0.000	
	IM1	0.789	0.003	
	IM2	0.676	0.004	
	IM3	0.862	0.019	
	IM4	0.805	0.017	
	IM5	0.821	0.012	
	IS1	0.774	0.017	
	IS2	0.810	0.037	
	IS3	0.815	0.022	
	IS4	0.791	0.016	
	IS5	0.818	0.039	
	IC1	0.801	0.005	
	IC2	0.792	0.016	
IC3	0.840	0.029		
IC4	0.825	0.014		

Variable	Indicator	Outer Loading	p-value	Information
Learning Motivation	IC5	0.613	0.022	Significant
	CWA1	0.791	0.015	
	CWA2	0.818	0.020	
	CWA3	0.707	0.008	
	CWA4	0.518	0.012	
	IO2	0.563	0.010	
	IO3	0.714	0.009	
	IO4	0.572	0.021	
	PK1	0.822	0.018	
	PK2	0.779	0.019	
	PK3	0.784	0.008	
	PK4	0.603	0.016	
Job Performance	TK1	0.813	0.024	Significant
	tk2	0.744	0.018	
	tk3	0.826	0.014	
	KK1	0.845	0.020	
	KK2	0.822	0.011	
	KK3	0.839	0.000	
	KMN1	0.824	0.003	
	KMN2	0.571	0.004	
	KMN3	0.643	0.019	
	KMD1	0.762	0.017	
	KMD2	0.653	0.012	
	KW1	0.808	0.017	
	KW2	0.859	0.037	
	KW3	0.851	0.022	
	EF1	0.829	0.016	
EF2	0.868	0.039		
EF3	0.841	0.005		

Based on the results in table 3, after carrying out a validity test (outer loading), it can be seen that all indicators have an outer loading value of more than (>) 0.5 and a P-value < 0.05. Thus, all indicators measuring variables are valid and further analysis can be carried out.

#### 4.4. Inner model evaluation

The inner model illustrates the interplay among the research variables. In this study, there are four hypotheses regarding the tested variable relationships. These hypotheses are subsequently examined based on the p-value, which indicates the significance level of the tested variable relationships. The p-value is employed to evaluate the significance of the influence between variables. If the p-value <  $\alpha$ , where  $\alpha = 0.05$  (5%), it can be inferred that there is a substantial impact on the relationship between the tested variables, and thus the hypothesis is accepted. The outcomes of the direct influence testing of the research hypotheses are presented in Table 4 below:

**Table 4. Direct Effect Hypothesis Test (Direct Effect) and Indirect Influence (Indirect Effect)**

hypothesis	Influence Between Variables	Path Coefficient	P-value	Information	Conclusion
H1	Transformational Leadership (X1) → Job Performance (Y2)	0,221	0,005	Significant	H1 is accepted
H2	Transformational Leadership (X1) → Learning Motivation (Y1)	0,301	<0,001	Significant	H2 is accepted
H3	Learning Motivation (Y1) → Job Performance (Y2)	0,21	0,008	Significant	H3 is accepted

hypothesis	Influence Between Variables	Path Coefficient	P-value	Information	Conclusion
Hypothesis	Mediation Effects	Path Coefficient	P-value	Information	Conclusion
H4	Transformational Leadership → Learning Motivation → Job Performance	0,080	0,049	Significant	H6 is accepted

**Hypothesis 1: Transformational leadership has a significant and positive effect on Job performance.**

Table 4 reveals a clear acceptance of Hypothesis one (H1). This affirmation is bolstered by the test outcomes, which present a p-value of 0.005 (<0.05) alongside a path coefficient of 0.221. As a result, these findings signify a substantial and affirmative impact of Transformational Leadership (X1) on Job Performance (Y2). This suggests that an elevated level of Transformational Leadership (X1) corresponds to an augmentation in Job Performance (Y2).

**Hypothesis 2: Transformational leadership has a significant and positive effect on Learning motivation.**

Based on Table 4, it is evident that Hypothesis two (H2) is accepted. This is supported by the testing results, which yield a p-value of <0.001 (<0.05), along with a path coefficient value of 0.301. Thus, the results of this test indicate a positive and significant influence of Transformational Leadership (X1) on Learning Motivation (Y1). This interpretation implies that enhanced Transformational Leadership (X1) leads to an increase in Learning Motivation (Y1). The findings of this study establish a clear relationship between Transformational Leadership and Learning Motivation. Additionally, this study reinforces the outcomes of research conducted by Afsar & Umrani (2020) and Kark et al. (2018). Both studies unequivocally state that effective transformational leadership has the capacity to elevate employee motivation in executing work-related activities, including fostering a motivation for learning within the workplace.

**Hypothesis 3: Learning motivation has a significant and positive effect on Job performance.**

Based on Table 4, it is evident that Hypothesis three (H3) is accepted. This conclusion is supported by the test results, which yield a p-value of 0.008 (<0.05) along with a path coefficient value of 0.21. Consequently, the outcomes of this test indicate a positive and significant influence of Learning Motivation (Y1) on Job Performance (Y2). This suggests that enhanced Learning Motivation (Y1) is associated with an increase in Job Performance (Y2).

**Hypothesis 4: : Learning motivation as a mediating variable on the relationship between Transformational leadership and Job performance**

Based on Table 4, it is evident that Hypothesis four (H4) accepted. This determination is supported by the test results, which yield a p-value of 0.049 (<0.05), accompanied by a path coefficient value of 0.08. Consequently, these test outcomes signify a noteworthy and positive indirect influence of Transformational Leadership (X1) on Job Performance (Y2) through Learning Motivation (Y1).

**4.5. Predictive Relevance**

In addition to evaluating the extent of the R<sup>2</sup> value's predictive accuracy, this study also explores the Q<sup>2</sup> value by Stone and Geisser (Stone, 1974; Geisser, 1974) as a measure of Predictive Relevance. A Q<sup>2</sup> value greater than zero for specific endogenous latent variables signifies strong predictive relevance of the PLS pathway model (Hair et al., 2017). The computation of Q<sup>2</sup>, following Stone (1974) and Geisser (1974), is as follows:

$$\begin{aligned}
 Q^2 &= 1 - (1 - R_1^2) \times (1 - R_2^2) \\
 &= 1 - (1 - 0,512) \times (1 - 0,501) \\
 &= 1 - (0,504) \times (0,549) \\
 &= 1 - 0,247 \\
 &= 0,756
 \end{aligned}$$

From the calculation results  $Q^2$  previously, it can be concluded that the model has value predictive relevance (predictive relevance) of 0.756 or 75.6%. This figure shows that the model analysis has predictive relevance good, so it can be relied upon in predicting future data. With such a large predictive value, this model is considered effective and accurate in providing forecasts based on existing data.

#### 4.6. Goodness of Fit

Model feasibility test or Goodness of Fit (GoF) is a method to test the extent to which the model fits or is following existing research data. Goodness of Fit (GoF) measures how well the relationship between latent variables (inner model) matches the assumptions. This study determined model fit based on Goodness of Fit (GoF). The value is determined based on three criteria, namely the goodness of fit = 0.10 (GoF) is a small value, Goodness of Fit = 0.25 (GoF) medium value, goodness of fit = 0.36 (GoF) great value. Test results Goodness of Fit (GoF) is obtained by multiplying the average value AVE (Average Variance Extracted) with an average value R-square.

**Table 4. AVE values and R-Square**

Variable	AVE value	Mark R-Square
Learning Motivation	0,592	0,512
Job Performance	0,701	0,501
Mean	0,647	0,507

From Table 4, GoF can be calculated as follows:

$$\begin{aligned}
 GoF &= \sqrt{AVE \times R^2} \\
 GoF &= \sqrt{0,647 \times 0,507} \\
 GoF &= 0,572
 \end{aligned}$$

Based on these calculations, a GoF value of 0.572 is obtained. This value indicates that the variables used can explain the model of 57.20%, while the rest is explained by other variables not considered in the research model. This means that the model is quite good at explaining the relationship between variables, but there are still other factors that need to be considered to explain the residual variability in the research data.

#### 4.7. Discussion

Based on the results of the Outer Model, most of the indicators/items that make up the variables have been said to be valid. In SEM, the preparation of research instruments is one of the important things to reduce bias in research results. The preparation of research instruments is based on previous research. In this case, the preparation of indicators for the Transformational Leadership variable is based on research by Avolio & Bass (1995) which contains the indicators: Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individual Consideration. Meanwhile, the preparation of the Learning Motivation variable is based on research by Boshier (1976) and O'Connor (1982) which contains the indicators: Compliance With Authority, Influence of Others, and Professional Knowledge. Furthermore, the Job Performance variable is compiled based on an

adaptation of research by Robbins & Judge (2012) which contains the indicators: Quantity/Work Target, Work Quality, Work Commitment, Independence, Punctuality, and Effectiveness.

Apart from the outer research model, there is also an inner research model. This research states that Transformational leadership has a significant and positive effect on Job performance. The results of this investigation provide valuable insights into the interrelation between Transformational Leadership and Job Performance. Additionally, these conclusions harmonize with the studies conducted by Chandrasekara (2019), Yulianti & Sanjaya (2018), and Matsunaga (2022). Chandrasekara's study (2019) emphasizes the importance of fostering a positive rapport between leaders and employees to achieve favorable outcomes. Specifically, the research underscored the substantial correlation between transformational leadership and both job satisfaction and job performance. Consequently, this study suggests that leaders should actively cultivate the attributes of transformational leadership to enhance overall job performance.

Based on the results of hypothesis 2, this research states that Transformational leadership has a significant and positive effect on Learning motivation. In conclusion, this study asserts that professional transformational leadership can enhance employee motivation, inspire them to adapt their work practices, elevate their learning efforts, and drive greater dedication within the work environment. Furthermore, this leadership style cultivates an atmosphere that empowers employees to tackle challenging and non-routine tasks, thereby injecting a sense of intrigue and enjoyment into their work. Employees driven by a motivation to learn are more inclined to actively seek opportunities to refine their knowledge and skills. Moreover, they tend to view challenging tasks as avenues for personal growth and development, and proactively seek feedback from peers to enhance their capabilities (VandeWalle & Cummings, 1997).

Furthermore, this research also states that Learning motivation has a significant and positive effect on Job performance. The findings of this study provide information regarding the relationship between Learning Motivation and Job Performance. Furthermore, this study reinforces the outcomes of research conducted by Ismail et al. (2010). Within the organizational context, supervisors offer ample support, including motivating employees to engage in training programs and apply the newly acquired knowledge and skills to their roles. Moreover, effective communication practices are implemented, encompassing feedback provision, discussion encouragement, and transparent conveyance of training-related information to employees. As a result of this supervisory role, a majority of employees experience increased motivation to learn. Augmented employee motivation to learn can produce a positive impact on organizational job performance (Ismail et al., 2010).

Finally, this study also states that Learning motivation as a mediating variable on the relationship between Transformational leadership and Job performance. This underscores the role of Learning Motivation as a mediating variable. The positive coefficient suggests that with an enhancement in Transformational Leadership, there is a subsequent improvement in Learning Motivation, leading to a corresponding elevation in Job Performance. The direct influence of Transformational Leadership (X1) on Job Performance (Y2) is significant, and the indirect effect is also significant. Thus, Learning Motivation operates as a partial mediating variable, indicating partial mediation. The revelation that Learning Motivation serves as a mediating variable in the relationship between Transformational Leadership and Job Performance represents a novel discovery in this study.

#### 4.8. Implications

The implications in this study are divided into two, theoretical implications and practical implications, which is explained as follows: Based on the results of research and discussion it is known that transformational leadership has a significant positive effect on learning motivation and job performance. Learning motivation also has a significant positive effect on job performance. In addition, learning motivation acts as a partial mediating variable in mediating the relationship between transformational leadership and job performance, which later becomes a new finding in this

study. Based on the results of the research that has been done, the practical implications of this research are as follows:

- Firstly, transformational leadership exerts a significant and positive influence on job performance. Companies should invest in leadership training and development for managers and supervisors, enabling them to become effective transformational leaders. This training should encompass communication, empathy, inspiration, and motivation skills to guide teams towards growth and enhanced performance. Consequently, companies can equip potential employees with the skills to become future transformational leaders.
- Secondly, transformational leadership significantly enhances learning motivation. This underscores the importance for transformational leaders to foster employee collaboration and engage them in decision-making and problem-solving processes. By actively involving employees, a sense of responsibility for work outcomes is instilled, leading to increased motivation for learning and skill enhancement. Moreover, companies can introduce recognition and incentives for employees who demonstrate a commitment to learning and personal development. This could take the form of awards, promotions, or opportunities for greater responsibilities within the organization upon completion of specific training.
- Thirdly, learning motivation plays a substantial role in elevating job performance. Companies must cultivate a learning-oriented culture that continually encourages employees to refine and elevate their skill sets. Firm-wide support, from top management to the lower tiers, is pivotal in fostering a positive learning atmosphere. Furthermore, companies can provide tailored training and developmental prospects to enhance employees' knowledge and capabilities. Targeted training aligned with their job roles can foster increased motivation to learn, ultimately leading to enhanced performance.
- Fourthly, learning motivation serves as a partial mediating factor in the relationship between transformational leadership and job performance. To optimize the positive impact of transformational leadership on employee performance, companies can adopt a series of strategic measures. These encompass promoting transformational leadership, cultivating a supportive learning environment, acknowledging and rewarding contributions within a learning-centric culture, objectively gauging learning motivation and performance, delivering constructive support and feedback, implementing employee development initiatives, and organizing forums and discussions for learning. By implementing these steps, companies can elevate work performance and instill a robust culture of continuous learning within the organization.

The limitations in this study are:

- This research is limited to the population of factory I employees at PT. Petrokimia Gresik. Therefore, further research can be expanded to cover all employees of PT. Petrokimia Gresik or can even be expanded to a wider scope.
- It is recommended to collect data directly so that if there are respondents who do not understand the questionnaire, they can be directly asked by the researcher. By conducting direct interviews, it is hoped that researchers can provide answers that are more flexible to respondents.

## 5. CONCLUSION

Based on the results of the research and discussion as previously described, the following conclusions can be drawn:

- 1) Transformational Leadership has a significantly positive effect on Job Performance. The findings of this study reinforce the concepts presented in the research results of Chandrasekara (2019), Yulianti & Sanjaya (2018), and Matsunaga (2022).

- 2) Transformational Leadership has a significantly positive effect on Learning Motivation. The findings of this study corroborate the concepts highlighted in the research results of Afsar & Umrani (2020) and Kark et al. (2018).
- 3) Learning Motivation has a significantly positive effect on Job Performance. The findings of this study bolster the concepts outlined in the research results of Ismail et al. (2010).
- 4) Learning Motivation functions as a partial mediating variable (partial mediation) in mediating the relationship between Transformational Leadership and Job Performance. This represents a novel discovery in this study

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