The mediating effect of work motivation on the relationship between transformational leadership and employee performance

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Abstract

This research aimed to analyze the influence of transformational leadership (TL) on employee performance (EP) through work motivation (WM) on engineering consulting companies in Capital Region of Jakarta. The data collection of this research was primary and secondary by using structural equation modeling with partial least squares method. The total respondent of this research was 106 who were the employees from selected engineering consulting companies in Capital Region of Jakarta. TL had a significant effect towards EP. TL had a significant effect towards WM. Lastly, TL had a significant effect towards EP through work motivation.

Keywords: Transformational leadership, employee performance, work motivation, engineering

INTRODUCTION

Human resources are essential assets in organizations and companies. The success of company management is absolutely affected by the quality of human resources in an organization or a company (Hamid et al., 2017; Zhang, 2016). The ability of employees in encountering organizational needs can affect the achievement of an organization’s goals. Employee performance is undeniably proportional for the organization’s success in every activity (Siddiqui, 2014; Suharto, Suyanto, & Hendri, 2019). Performance is the result of work achieved by employees based on job requirements (Anyakoha, 2019; Stoilkovska & Serafimovic, 2017; Suthar, Chakravarthi, & Pradhan, 2014). Employees’ performance are considered as a result of work that has been achieved by employee from their work behavior in performing work activities (Pradhan & Jena, 2017). Companies must enhance employees’ performance in various ways that can be accomplished, such as improving leadership in a team or in an organization, providing appropriate compensation for employees’ hard work, and managing knowledge among employees (Suryadharma et al., 2016; Zaini & Agustian, 2019). Furthermore, work motivation represents result of the company’s efforts to enhance employees’ performance (Beltrán-Martín & Bou-Llusar, 2018; Garg, 2017; Van Iddekinge et al., 2018). Motivation is considered as a driving factor to enhance employees performance due to their job satisfaction obtained from the moment when employees are satisfied with the leadership of organization, compensation, and knowledge management (Ganta, 2014; Shahzadi et al., 2014).

The leadership has been considered as the important ability to encourage and motivate employees for committing and achieving the goal (Tyssen, Wald, & Heidenreich, 2014). Leadership can determine employee’s success. Hence, enhancing employee performance is inseparable from the role of the leaders (Cho et al., 2020; Kesari & Verma, 2018; Sandvik et al., 2019). Leadership is a personal ability of influencing employees to achieve company goals (Jyoti & Bhau, 2015; Zohar & Polachek, 2017) since fair leaders can transport mental support and respect which will enhance employees’ performance. Thus, work motivation of employees will increase their performance as they feel comfortable with the presence of leaders who are expected to be fair and supportive. Work motivation encourages the employees to be productive and to have a better performance (Priyanto, 2016; Widodo, 2017).
Strong motivation in doing work can create organizational success and maximize the work. Work motivation itself has an essential role in terms of enthusiasm growth, passion, and pleasure to work optimally. Motivation is a factor encouraging the other people to perform tasks based on their roles in an organization. Motivation also supports the process of determining the intensity, direction, and perseverance of individuals in achieving goals (Bronkhorst, Steijn, & Vermeeren, 2015; U. T. Jensen & Bro, 2018). The concept of motivation often emphasizes stimulation that arises from an individual (intrinsic motivation) (Auger & Woodman, 2016; Tabernero & Hernández, 2011) and outside factors (extrinsic motivation) (King et al., 2013; Reiss, 2012). The employees who have strong work motivation will have much energy to perform activities. In other words, it enhances employees' performance (Hidayat & Heryanto, 2019; Kwapong, Opoku, & Donyina, 2015; Zainuri & Mundakir, 2018).

The problem occurring recently is an achieve performance in project execution which is accomplished by engineering companies. It is under optimal. The final work is still far beyond customer expectations due to delays of project completion. Company delays in work completion shall be subjected to sanctions and fines per Indonesia's regulation. Besides the technical aspects that affect these delays should be observed from the project performance indicating an under optimal employee performance.

Research factors that affect employees' performance were aspects consideration of work motivation as mediating variables. The aspects of work motivation are assumed to intervene with the effects of leadership, compensation, and knowledge management on performance. The aspects of work motivation are intended to disclose the effects of leadership and compensation on employees’ performance. This research aims to analyze transformational leadership and compensation in affecting employees' performance through work motivation as mediating variables.

**Transformational Leadership (TL) and Employee Performance (EP)**

Transformational leadership is an individual activity to drive the other people by leading, guiding, and influencing other people. So, they do something to achieve the expected results (Groves, 2014; Kwan, 2020). That is in accordance with the process of making other people to understand and agree with what needs to be done and how the task is performed effectively as well as a process of facilitating individual and collective efforts to achieve shared goals (Bronkhorst et al., 2015). Transformational leadership has direct positive effects on employee performance. This hypothesis has been confirmed by previous research (Caillier, 2014; Chammas & Hernandez, 2019). Based on the arguments on transformational leadership and employee performance, the hypothesis below is formed:

**H1:** TL has positive effects towards EP.

**Transformational Leadership (TL) and Work Motivation (WM)**

Strategies in increasing employee motivation are part of human resources development and the affecting factors can be analyzed. Previous research in accordance with employees' work motivation have been conducted for years. TL has positive effects towards work motivation. This hypothesis has been confirmed by Bronkhorst et al. (2015) and Jensen & Bro (2018). Compensation has a positive effect towards work motivation. This hypothesis has been confirmed by Priyanto (2016) & Widodo (2017). Based on the arguments connecting transformational leadership and work motivation, the hypothesis below is formed:

**H2:** TL has positive effects towards WM.

**Mediation Effect of Work Motivation (WM)**

Strategies in increasing employee performance are part of HR development when employee performance can be analyzed from those factors. Previous research in accordance with the development of employees' performance have been conducted for years. TL has a positive effect towards EP through WM. This hypothesis has been confirmed by previous research (Arman, Wardi, & Evanita, 2020; Priyanto, 2016; Widodo, 2017). CM has a positive effect towards EM through WM. This hypothesis has been confirmed by previous research (Priyanto, 2016; Widodo, 2017). Hence, transformational leadership have an indirect
effect on employee performance through the work motivation. Based on that idea, the following hypothesis devolved:

**H3**: TL is positively related to EP through WM (see Figure 1)

Figure 1. Research Framework

**METHOD**

In order to validate the hypothesized model, which was shown on Figure 1, the research object was members of construction planners of consulting companies. They were known as National Association of Indonesian Consultant (Inkindo) with high qualification. This research was conducted in December 2020 to January 2021 in Jakarta. The analysis units of this research were engineering companies represented by the experts of consulting engineering of construction planners. The sample of this research was taken from consulting company organizations.

The types of data used in this were primary and secondary. Primary data of this research was obtained by from questionnaire distribution to 106 respondents (70.67%) out of 150 company representatives who participated in this research. Research measurement used Likert scale. Secondary data in this research was obtained from project performance reports, employee management, and data of employees’ attendance.

In this research, the method of processing and analyzing the data was SEM based on component or variance with partial least squares (PLS) using SmartPLS 3.2.8. The sample used in this research could reach the minimum model of 100 samples for structural equation modeling (SEM) analysis (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

The data used in this research included data on TL, WM, and EP collected from questionnaires design which used Likert scale. In this scale, the submission statement included five alternative answers. These statements were TL, WM, and EP and they used Likert scale. The details were as follows SD (Strongly Disagree) = 1, D (Disagree) = 2, N (Neutral) = 3, A (Agree) = 4, and SA (Strongly Agree) = 5. Seven items of TL scale based on Carless, Wearing, & Mann (2000). Nine items of WM scale based on Weinstein & Ryan (2010). Five items of EP based on Williams & Anderson (1991).

**RESULT AND DISCUSSION**

**Common Method Bias**

The problem of common method bias (CMB) can pose a risk to the study of consistency. It can happen if the entire data is perceived and collected from one type of source, and during one (same) time (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In this study, we used Hermann’s one factor test using SPSS 22 to know the CMB threat. The first factor clarifies only 30.08% of the inconsistency that is far lesser than 50. We were assured that the CMB was not a threatening problem in this study.

**Measurement Model**

Evaluation of measurement model (outer model) was performed to determine the validity and reliability which related to the indicator of latent variable. There were three criteria of data analysis techniques which used SmartPLS 3.2.8 to evaluate outer model such as convergent validity, discriminant validity, composite reliability, and average variance extracted (AVE) (Cepeda-Carrion et al., 2019; Hair et al., 2019).
Convergent validity of measurement model with reflective indicators was evaluated by using correlation between item and component scores of PLS software. Personal measurement was in a high level, if the correlation was above 0.70 with constructive measurement (Hair et al., 2014). In this research, a number of limiting factors of 0.70 were used. There was still an outer loading value under. Because it had low convergent validity value, the statement items under needed to delete i.e. TL6, TL7, WM6, WM7, WM8, and WM9. The results of data processing on loading values under which were deleted are shown in Figure 2.

Figure 2. Results of the Path Analysis (n = 106)

Reliability Evaluation and AVE
The validity and reliability criteria could also be observed from the reliability value of a construct and the AVE (Average Variance Extracted) value of each construct. It can be said that the constructs have high reliability, if the reliability value was 0.70 and AVE value was above 0.50 (Hair et al., 2014). The CR indices of each scale were all higher than the level of 0.70 recommended by Fornell & Larcker (1981). Table 1 presents Cronbach’s alpha, composite reliability (CR), and AVE values for all variables.

Table 2. Internal consistency and reliability

<table>
<thead>
<tr>
<th>Constructs/Indicators</th>
<th>Factor loading</th>
<th>Cronbach’s alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP1</td>
<td>0.746</td>
<td>0.871</td>
<td>0.907</td>
<td>0.661</td>
</tr>
<tr>
<td>EP2</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP3</td>
<td>0.856</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP4</td>
<td>0.852</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP5</td>
<td>0.835</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL1</td>
<td>0.793</td>
<td>0.905</td>
<td>0.928</td>
<td>0.721</td>
</tr>
<tr>
<td>TL2</td>
<td>0.862</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL3</td>
<td>0.873</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL4</td>
<td>0.872</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL5</td>
<td>0.842</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM1</td>
<td>0.946</td>
<td>0.875</td>
<td>0.920</td>
<td>0.794</td>
</tr>
<tr>
<td>WM2</td>
<td>0.813</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM3</td>
<td>0.909</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 1, TL, WM, and EP had composite reliability above 0.80 and a Cronbach’s alpha value above 0.70. Hence, it can be concluded that the indicators used in every variable have good reliability or able to measure its construct (Hair et al., 2014). However, Cronbach’s alpha value generated by PLS is slightly underestimated. Therefore, it is recommended to use the composite reliability value (Peterson & Kim, 2013). Likewise, with AVE value, TL, WM, and EP have an AVE value above 0.50. Therefore, it can be said that each variable has high discriminant validity.

Discriminant Validity Analysis
After ensuring all indicators which were from the latent variables, there were constructs of the latent variables. The next step was to test the discriminant validity. Discriminant validity also needed to finish.
Thus, the scale did not have to comprise two same constructs. To indicate the correlation of constructs, it must be under 0.90. If the correlation between constructs was 0.90 or more and multicollinearity between constructs which occurred (Hair et al., 2014). The results of discriminant validity testing were shown in Table 2.

As shown in Table 2, there was no multicollinearity between variables because each construct measured the different subject. This was an evident from the correlation value among constructs that were less than 0.90.

<table>
<thead>
<tr>
<th>Table 2. Discriminant validity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>EP</td>
</tr>
<tr>
<td>TL</td>
</tr>
<tr>
<td>WM</td>
</tr>
</tbody>
</table>

**Structural Model**

Inner model or structural model testing is conducted to observe the correlation between the constructs, significance value, and $R^2$ of the research model (Hair et al., 2019). The dependent construct of t-test of structural model was evaluated by using $R^2$ as well as the significance of structural path parameters coefficient. The assessment of a model with PLS started by looking at the $R^2$ for each latent dependent variable. Table 3 shows the results of $R^2$ estimation using SmartPLS.

<table>
<thead>
<tr>
<th>Table 2. R-square results</th>
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<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>EP</td>
</tr>
<tr>
<td>WM</td>
</tr>
</tbody>
</table>

Table 2 shows the $R^2$ value for EP obtained at 0.327 and for WM obtained at 0.189. These results indicated that 32.7% of EP could be affected by TL and WM; the rest were influenced by other variables that were not included in the research. However, 18.2% of WM was influenced by TL; the rest was influenced by other variables that are not found in the research.

**Hypothesis Testing**

Based on the hypothesis testing path diagram in Figure 3, all indicators on each variable had a higher statistical value than 1.66 (T-statistic). To test the correlation between variables (hypothesis testing), the statistical value of the SmartPLS output was compared to the value of the table. Table 3 provides the results of the correlation between constructs (variables).

<table>
<thead>
<tr>
<th>Table 3. Direct effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
</tr>
<tr>
<td>TL $\rightarrow$ EP</td>
</tr>
<tr>
<td>TL $\rightarrow$ WM</td>
</tr>
<tr>
<td>TL $\rightarrow$ WM $\rightarrow$ EP</td>
</tr>
</tbody>
</table>

In Figure 3, the analysis of path coefficients and level of significance shows that all direct paths were significant. Table 3 showed that all paths were significant on indirect effect. We made bootstrap contest with 5.000 sub-samples to estimate the $t$-values and to assess the level of significance for specific indirect effect.
Discussion

The results of hypothesis testing on effect direction of TL towards EP are significant. It is supported by the previous research (Jensen, Potočnik, & Chaudhry, 2020; Ng, 2017) which shows that TL has affected EP. The implication of this research is that TL can affect individual performance. Supervisors can affect employees to struggle more or to strive in achieving organizational goals. Supervisors who are -task and relationship- oriented persons, are consistent, responsible, and concern to the employees in their jobs. This situation shows that good leadership can enhance employees’ performance.

The results of hypothesis testing on the effect direction of TL towards WM are significant. They are consistent with the researches by Priyanto (2016) and Widodo (2017), stated that leadership affects work motivation. The leadership factor plays an essential role since the leaders are the individuals to move and direct the organization in achieving goals. At the same time, this is not an easy task as they have to understand each employee’s different behavior. Employees can be affected in the same way as they can be motivated to work effectively and efficiently. To enable employees for increasing the volume and quality of their work, it is the responsibility of the leaders of organization to motivate them.

The results of hypothesis testing on the effect direction TL towards EP through WM are significant. They are consistent with the researches by Priyanto (2016) and Widodo (2017), which stated that motivation mediates the effects of leadership on employees’ performance. The results of hypothesis testing find the evidence that work motivation significantly mediates the effects of leadership on employees’ performance. Based on the results of hypothesis testing, the coefficient value of leadership indirect effect on employees' performance was higher than the coefficient value of leadership direct control on employees' performance. The direct effect of leadership on performance is 0.261, whereas the indirect effect through motivation is 0.408. It is illustrated that in TL and EP, achievement that is prioritized more than mediated by WM. Hypothesis testing results also indicates that leadership has an indirect effect on employees’ performance through work motivation. Work motivation becomes a mediating variable between leadership and achievement. It is explained that the right direction is able to affect employees in performing their duties voluntarily and to accept their effects by their expectations. Moreover, a high motivation will make employees more focused and attentive to struggle in achieving consistent work results and satisfied the company’s expectations (Groening & Binnewies, 2019; Kiuru et al., 2020), to develop the better employees’ performance (Eide, Saether, & Aspelund, 2020). Another good effect is that project completion performance shall be accomplished on time.

CONCLUSION

This research analyzes the relationship of TL towards EP through WM. Statistics shows that transformational leadership affect employees' performance directly and indirectly through work motivation. It can be said that work motivation has its own role in encouraging the company’s efforts. It is specifically to encourage employees’ performance by enhancing leadership and motivation, in terms of quality resources improvement. Leadership with clear and correct directions and goals can easily affect employees to perform their duties voluntarily and accepted the leaders’ effects with their expectations. These can increase the employees’ motivation. In conclusion, these variables encourages employees' work motivation in increasing employees' capacity, productivity, and performance.

The efforts which improve performance are mainly determined by leadership. Therefore, management at engineering consulting companies should further enhance the leadership role. It can be
achieved by explaining the company’s objectives and trusting the ability of their employees. Work motivation should be enhanced by providing different methods to make the employees’ better performance.

REFERENCES


