



## A mediation-moderation model of transformational leadership and intrinsic work motivation for nurturing employee performance

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### ABSTRACT

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The main purpose of this study is to examine how transformational leadership encourages intrinsic work motivation, which leads to improved employee performance, as well as to analyze the mediating and moderating role of intrinsic work motivation in the relationship between transformational leadership and employee performance. Research data was collected from employees of a community health center in Riau, Indonesia. A two-step approach to partial least squares structural equation modeling (PLS-SEM) employing SmartPLS 3.0 software was adopted to scrutinize the mediator and moderator variable. The research findings of this study show that transformational leadership significantly affects intrinsic work motivation and employee performance. Furthermore, the findings prove the significant mediating and moderating effect of intrinsic work motivation in the relationship between transformational leadership and employee performance. This study concludes that transformational leadership can enhance employee performance via the interactive influence of intrinsic work motivation by encouraging employees to better understand and enjoy their work, think outside the box, and generate bright ideas that lead to innovative performance within the organization. The findings suggest that the community health center should be developing and applying transformational leadership to stimulate intrinsic work motivation. This would lead to superior employee performance.

**Contribution/Originality:** The study addresses the meaningful issue of the mediating and moderating effect of intrinsic work motivation on the relationship between transformational leadership and employee performance. Limited studies on this topic have been conducted in community health centers, particularly in Indonesia.

### 1. INTRODUCTION

In today's dynamic business era, nurturing employees' talents and performance is an essential challenge for many organizations. Organizational researchers and practitioners in the field of management and business have long been interested in the factors that affect employee performance. By identifying these factors, researchers and practitioners can provide insight into the various antecedent factors that improve employee performance and suggest specific efforts and interventions to maintain and promote superior and sustainable employee performance to achieve organizational success. One factor that is often considered to have a very strong influence on employee performance is transformational leadership (Garad, Yaya, Pratolo, & Rahmawati, 2022; Haryanto, Suprapti, Taufik, & Maminirina Fenitra, 2022; Park, Han, Kim, & Kim, 2022).

A transformational leader inspires and supports employee performance by articulating a clear vision, communicating high expectations, acting as a good role model, and paying individual attention to achieve collective

progress (Astuty & Udin, 2020; Yang, Zhang, & Tsui, 2010). Extensive review and meta-analysis studies by Banks, Gooty, Ross, Williams, and Harrington (2018), Crede, Jong, and Harms (2019), Gui, Luo, Zhang, and Deng (2020), and Zhao, Fan, and Chen (2021) have proved the importance of transformational leadership in improving employee attitudes and behaviors. Transformational leadership significantly affects organizational performance and success (Abbas & Ali, 2021).

Nevertheless, the studies of Lee and Hidayat (2018), Prabowo, Noermijati, and Irawanto (2018), and Mon, Robin, and Tarihoran (2021) showed that transformational leadership causes poor employee performance. One relevant factor is that employees do not get satisfaction from carrying out their duties when they are under transformational leadership. In addition, several studies have explored the role of mediator variables in the relationship between transformational leadership and employee performance, such as intrinsic work motivation (Bastari, Eliyana, & Wijayanti, 2020; Nguyen, Mai, & Huynh, 2019) and work autonomy (Alkadash, Almaamari, Mohsen, & Raju, 2020; Pattnaik & Sahoo, 2021). Transformational leaders can inspire employees to achieve targeted results by boosting employee confidence in the assigned work and increasing their ability to make the best decisions for successful performance.

This research also contributes significantly to the development of behavioral science and management practice. First, this study expands on previous studies on the relationship between transformational leadership, intrinsic work motivation, and employee performance within the framework of self-determination theory (SDT). Previous research on the effect of transformational leadership on employee performance via intrinsic motivation was conducted by Nguyen et al. (2019), who focused on the pharmaceutical field in Vietnam. Shafi, Lei, Song, and Sarker (2020) further investigated the effect of transformational leadership on employee work creativity moderated by intrinsic motivation in Pakistani software firms. However, those studies neglected the specific relationship between transformational leadership and employee performance mediated and moderated by intrinsic work motivation. Moreover, by simultaneously assessing mediation and moderation models, this study provides insight into how transformational leadership improves employee performance in the workplace, either directly or indirectly, primarily through intrinsic work motivation.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1. Employee Performance

Employee performance refers to the ability of employees to complete tasks and responsibilities that involve positive emotions and high motivation (Parker & Griffin, 2011). Employee performance is considered the main driver of maintaining and improving organizational sustainability. Employee performance, by leading to the creation of high-quality products, strategies, services, or technologies, contributes positively to the achievement of an organization's competitive advantage over time (Dhir & Shukla, 2018).

The level of employee performance in an organization is influenced by many factors (Murphy & Cleveland, 1991), including both individual characteristics and the way groups and organizations interact with each other (Nguyen, Dang, & Nguyen, 2015). Uddin, Luva, and Hossian (2013) asserted that although cultural factors and a supportive work environment can improve employee performance, further research is still needed to confirm this relationship. Furthermore, the factors that affect employee performance include intrinsic work motivation (Diamantidis & Chatzoglou, 2019) at the individual and group levels and transformational leadership (Pawirosumarto, Sarjana, & Muchtar, 2017) at the organizational level. Transformational leadership inspires and increases employee motivation to achieve better performance (Escortell, Baquero, & Delgado, 2020; Sulistiyani, Udin, & Rahardja, 2018), and employees who have high intrinsic work motivation tend to carry out tasks and responsibilities joyfully, accept challenges and take risks, and always find the best solution to complete tasks in all circumstances (Zhou & Shalley, 2003; Zubaidah, Haryono, & Udin, 2021).

## 2.2. Intrinsic Work Motivation

Intrinsic work motivation is an individual's sense of enthusiasm to take the initiative in performing their work duties (Deci & Ryan, 2000). Intrinsic work motivation is one of the main determinants of an individual's motives before and when performing work. Employees with high intrinsic work motivation view work as something meaningful that can provide psychological happiness and satisfaction (Hussain, Abbas, Gulzar, Jibril, & Hussain, 2020).

Zhang, Kwan, Zhang, and Wu (2014) asserted that intrinsic work motivation strongly influences employees' work creativity and innovative behavior. Intrinsically motivated employees try to be more active by showing more concentration and openness and a stronger desire to learn than other employees (Deci & Ryan, 2008); thus, they find it easier to interact and build cooperation with superiors, subordinates, and coworkers (Ali et al., 2022). According to self-determination theory (SDT) (Gagné & Deci, 2005), intrinsic motivation directs and shapes employee work behavior. Employees who take pleasure in their work have greater curiosity, work harder, are more open in decision-making, and tend to be committed to achieving the best performance (Moon, Youn, Hur, & Kim, 2020).

## 2.3. Transformational Leadership

Transformational leadership refers to a leadership style in which the leader shows individual consideration to employees, motivates and inspires, and develops their skills to be the best (Bass & Riggio, 2006). Transformational leadership encourages employee trust, loyalty, self-sacrifice, and a focus on higher goals beyond the expected performance (Bass, 1985; Dumdum, Lowe, & Avolio, 2013). Transformational leadership comprises five dimensions: attributed charisma (i.e., the leader uses personal appeal and deep communication to influence employees), idealized influence (i.e., the leader becomes a role model that is admired and trusted), inspirational motivation (i.e., the leader clearly defines a vision for the future and inspires employees to achieve higher levels of performance), intellectual stimulation (i.e., the leader encourages critical thinking and seeks different perspectives when identifying and solving problems), and individualized consideration (i.e., the leader appreciates employees' value and time and treats them as meaningful individuals) (Dumdum et al., 2013).

Transformational leaders effectively motivate employees to take an interest in their work by setting clear goals and facilitating the various resources needed for successful job execution (Bakker, Hetland, Kjelleevold, & Espevik, 2022). Several meta-analytical studies have shown clear evidence that employees who work under transformational leaders feel more satisfied and motivated, learn continuously, and consistently perform better (Crede et al., 2019; Hoch, Bommer, Dulebohn, & Wu, 2018; Peng, Li, Wang, & Lin, 2021; Wang, Oh, Courtright, & Colbert, 2011).

Transformational leadership has become one of the most studied leadership styles in recent years because it is closely related to organizational productivity (Ng, 2017; Suhana, Udin, Suharnomo, & Mas'ud, 2019). Transformational leadership places great emphasis on developing a supportive culture that focuses on improving employee abilities, skills, and performance (Ghafoor, Qureshi, Khan, & Hijazi, 2011; Palupi, 2020). Transformational leaders are able to create positive emotions and build good relationships with employees so that they tend to be more successful and contribute to the achievement of organizational goals (Barrick, Thurgood, Smith, & Courtright, 2015). There is strong evidence that transformational leadership is effective in improving performance at the individual, group, unit, and organizational levels (Arif & Akram, 2018; Barrick et al., 2015; Buil, Martínez, & Matute, 2019; Hilton, Madilo, Awaah, & Arkorful, 2023; Puni, Hilton, Mohammed, & Korankye, 2022; Schwarz, 2017). Thus,

*H1: Transformational leadership positively affects employee performance.*

*H2: Transformational leadership positively affects intrinsic work motivation.*

Intrinsically motivated employees have a high willingness to learn and develop, are flexible, and are open to taking risks (Shalley, Gilson, & Blum, 2009). These employees tend to pay close attention to their work (Haryono,

Supardi, & Udin, 2020; Wrzesniewski & Dutton, 2001) and modify it creatively with relational boundaries (Thomas, 2000). Intrinsically motivated employees appear more proactive and creative in their work. Al-Douri, Aldabbagh, Mohammad, and Qawasmeh (2020), Siyal, Xin, Umrani, Fatima, and Pal (2021), and Husnatarina and Elia (2022) found that intrinsic work motivation significantly affects employee performance. Thus,

*H3: Intrinsic work motivation positively affects employee performance*

Nguyen et al. (2019) found that intrinsic work motivation is the main mediator in the relationship between transformational leadership dimensions (specifically, idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration) and employee performance. When working under transformational leadership, employees with high intrinsic motivation can produce higher performance. Transformational leaders also inspire employees to give meaning to their work so they are more intrinsically motivated to engage in extra performance (Kovjanic, Schuh, Jonas, Quaquebeke, & Van Dick, 2012). Furthermore, Shafi et al. (2020) found a significant moderating effect of intrinsic work motivation on the relationship between transformational leadership and employee work creativity. Through transformational leadership, intrinsic work motivation increases to stimulate employees to produce new, original, and meaningful ideas that lead to creative performance in the organization. Thus,

*H4: Intrinsic work motivation mediates the effect of transformational leadership on employee performance.*

*H5: Intrinsic work motivation moderates the effect of transformational leadership on employee performance.*

### 3. RESEARCH METHODS

#### 3.1. Sample

The sample of this study comprised employees working in community health centers in Riau, Indonesia. To generate a representative sample of the total population, purposive sampling was used, which resulted in 70 respondents who met the criteria. The questionnaires were distributed to respondents online using Google Forms and in person using printouts. Of the 70 questionnaires, 64 were returned to be analyzed (indicating a 91.4% response rate). Regarding age and gender, 50% of respondents were men, and most (40.6%) were between 26 and 30 years old. The majority of respondents (45.3%) had completed an undergraduate qualification. In addition, 44.4% of respondents had worked for their “current” organization for 1 to 3 years, indicating a lack of lengthy work experience.

#### 3.2. Measures

*Transformational leadership.* This study measured the transformational leadership variable using seven question items developed by Kirkman, Chen, Farh, Chen, and Lowe (2009), Astuty and Udin (2020), and Son, Phong, and Loan (2020). One example is: “The leader in the organization defines a clear common vision.”

*Intrinsic work motivation.* Four question items developed by Tremblay, Blanchard, Taylor, Pelletier, and Villeneuve (2009), Çetin and Aşkun (2018), and Moon et al. (2020) were used to measure intrinsic work motivation. An example item is: “Employees enjoy learning new things for work tasks.”

*Employee performance.* To measure employee performance, this study used six items developed by Astuty and Udin (2020), Buil et al. (2019), and Moon et al. (2020). One example is: “Employees display an adequate quality of assigned duties.” Respondents used a five-point Likert scale with answers ranging from 1 (strongly disagree) to 5 (strongly agree) to indicate their responses.

### 4. RESULTS AND DISCUSSION

This study used a two-step approach to partial least squares structural equation modeling (PLS-SEM), employing SmartPLS 3.0 software to scrutinize and analyze the data. In estimating model parameters and variable metrics, PLS-SEM does not specifically emphasize the normality of the data’s distribution (Chin, 1998). According

to Götz, Liehr-Gobbers, and Krafft (2010), PLS-SEM provides a measurement model that includes an assessment of the validity and reliability of each construct as well as a structural model evaluation, which portrays the relationship between independent and dependent variables by generating standardized estimates of regression coefficients. PLS-SEM has become a precise and powerful technique for simultaneously analyzing structural and measurement models (Sarstedt, Hair, & Ringle, 2022).

**Table 1.** Convergent validity and reliability.

Variables	Items	Loadings	Cronbach's $\alpha$	rho_A	CR	AVE
Transformational leadership	TL1	0.572	0.851	0.870	0.887	0.532
	TL2	0.757				
	TL3	0.828				
	TL4	0.667				
	TL5	0.778				
	TL6	0.813				
	TL7	0.655				
Intrinsic work motivation	IWM1	0.522	0.683	0.733	0.808	0.519
	IWM2	0.698				
	IWM3	0.775				
	IWM4	0.847				
Employee performance	EP1	0.785	0.793	0.812	0.853	0.495
	EP2	0.799				
	EP3	0.717				
	EP4	0.651				
	EP5	0.532				
	EP6	0.704				

As shown in Table 1, the factor loading for all items is greater than 0.50 with a significance level of 0.05. Thus, this study's proposed latent variables are above the acceptable value (Bagozzi & Yi, 1988). The value of Cronbach's  $\alpha$  for all constructs is greater than 0.60 (transformational leadership = 0.851, intrinsic work motivation = 0.683, employee performance = 0.793), indicating an acceptable level of internal consistency reliability (Ursachi, Horodnic, & Zait, 2015). The values of average variance extracted (AVE) for all constructs are less than 0.50 (transformational leadership = 0.532, intrinsic work motivation = 0.519, employee performance = 0.495), representing acceptable values of construct validity since the composite reliability (CR) is higher than 0.6 (Fornell & Larcker, 1981). The CR values for all constructs (i.e., transformational leadership, intrinsic work motivation, and employee performance) in the proposed model are 0.887, 0.808, and 0.853, respectively, confirming convergent validity.

**Table 2.** Fornell-Larcker criterion discriminant validity.

Variables	Employee performance	Intrinsic work motivation	Transformational leadership
Employee performance	0.704		
Intrinsic work motivation	0.665	0.721	
Transformational leadership	0.746	0.616	0.730

As presented in Table 2, which shows the results of the Fornell-Larcker criterion, the square root of AVE for each construct is larger than its correlations with other factors, indicating the acceptable discriminant validity of the measurement instrument (Ab Hamid & Sidek, 2017).

Figure 1 and Table 3 show the results of the structural model hypothesized in this study: first, transformational leadership is positively related to employee performance ( $\beta = 0.560$ ,  $t$ -value = 4.064,  $p$ -value = 0.000), confirming H1. Second, transformational leadership is found to be a significant predictor of intrinsic work motivation ( $\beta = 0.616$ ,  $t$ -value = 6.569,  $p$ -value = 0.000), supporting H2. Third, intrinsic work motivation is shown to be positively related to employee performance ( $\beta = 0.295$ ,  $t$ -value = 2.116,  $p$ -value = 0.037), confirming H3.

Regarding the mediation and moderation hypotheses, the estimated results of the indirect effects in Table 3 showed that intrinsic work motivation mediated ( $\beta = 0.182$ ,  $t$ -value = 2.028,  $p$ -value = 0.045) and moderated ( $\beta = 0.163$ ,  $t$ -value = 2.280,  $p$ -value = 0.025) the relationship between transformational leadership and employee performance, supporting H4 and H5. These results imply that transformational leadership is associated with higher intrinsic work motivation, which, in turn, promotes higher employee performance.

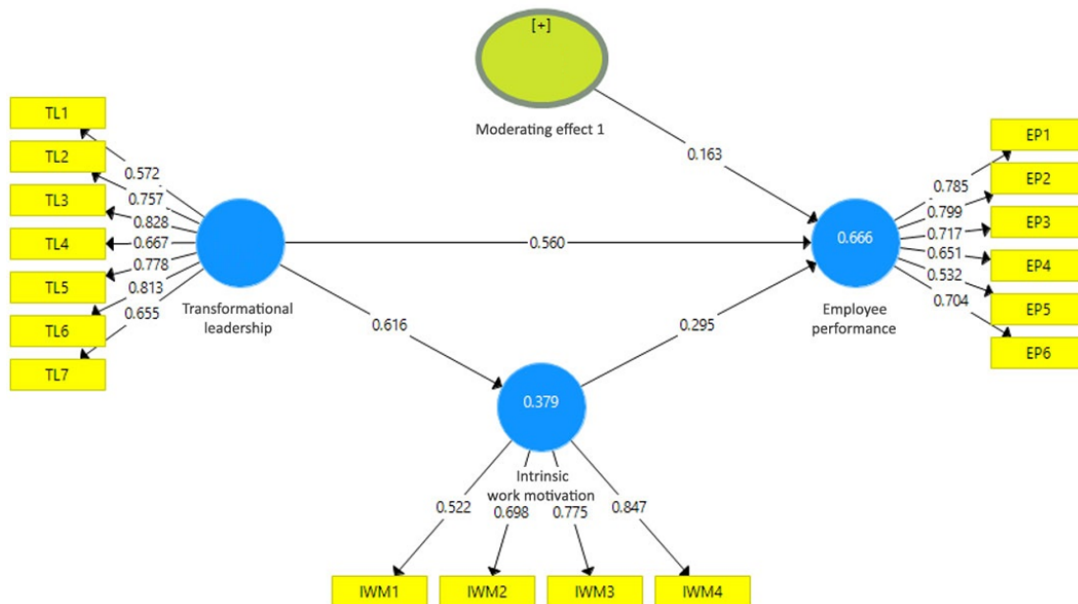


Figure 1. Results of path analysis.

Table 3. Path coefficients for the relations.

Hypothesis	Relationships	$\beta$	S.D	T-values	P-values	Remarks
Direct effect						
H1	TL $\rightarrow$ EP	0.560	0.138	4.064	0.000	Supported
H2	TL $\rightarrow$ IWM	0.616	0.094	6.569	0.000	Supported
H3	IWM $\rightarrow$ EP	0.295	0.139	2.116	0.037	Supported
Mediating effect						
H4	TL $\rightarrow$ IWM $\rightarrow$ EP	0.182	0.090	2.028	0.045	Supported
Moderating effect						
H5	TL x IWM $\rightarrow$ EP	0.163	0.072	2.280	0.025	Supported

Note: TL (Transformational leadership), IWM (Intrinsic work motivation), EP (Employee performance).

This study found that transformational leadership significantly affects intrinsic work motivation and employee performance. Transformational leadership contributes positively to increasing employee motivation so that employees feel happiness and satisfaction when carrying out their work, which, in turn, has implications for employee performance. Transformational leadership encourages employees' awareness of the importance and meaning of their work, fosters work creativity, and encourages them to realize organizational goals. In line with previous research, for example, the studies of Sobaih, Gharbi, Hasanein, and Elnasr (2022) and Tosun, Parvez, Bilim, and Yu (2022), transformational leadership inspires and motivates employees to achieve high performance and long-term organizational goals by outlining a clear and inspiring vision for the future as well as providing various necessary support resources.

This study further found that intrinsic work motivation significantly affects employee performance. Employees with high intrinsic work motivation perform their jobs with happiness and pleasure. They find value and meaning in the work and even consider it a spiritual act that must be completed with a sense of responsibility. According to SDT, introduced by Deci, Olafsen, and Ryan (2017), when employees are able to make sense of their work and feel happy with their performance, contingency rewards for high-performance achievements are no longer their top

priority. They are completely focused on actualizing their potential and realizing the best performance in the workplace.

Finally, this study found that intrinsic work motivation significantly mediates and moderates the relationship between transformational leadership and employee performance. By using idealized influence, attributed charisma, intellectual stimulation, inspirational motivation, and individualized consideration, transformational leadership motivates and stimulates employees' physical and psychological capabilities to produce a creative performance. Transformational leaders encourage and motivate employees to take risks and stimulate their minds to find the best ways to complete their tasks by developing bright ideas. Transformational leaders' expectations and anticipation of high future performance lead to an increase in intrinsic work motivation, which, in turn, facilitates employee performance. This result is in line with previous research findings that intrinsic work motivation mediates (Bastari et al., 2020; Li et al., 2020; Nguyen et al., 2019) and moderates (Chen, Ning, Yang, Feng, & Yang, 2018; Shafi et al., 2020) the relationship between transformational leadership and employee performance.

## 5. CONCLUSION

This study concludes that transformational leadership significantly influences intrinsic work motivation and employee performance. Furthermore, the findings prove the significant mediating and moderating effect of intrinsic work motivation on the relationship between transformational leadership and employee performance. Thus, transformational leadership can enhance employee performance through the interactive influence of intrinsic work motivation by encouraging employees to better understand and enjoy their work, think outside the box, and generate brilliant ideas that lead to innovative performance within the organization.

This study contributes to managerial practice in the community health center sector by confirming that transformational leadership effectively improves employee performance, either directly or indirectly (i.e., through mediation and moderation effects). Furthermore, intrinsic work motivation improves employee performance. Therefore, employee performance can be effectively improved if organizational leaders can apply these antecedent variables.

This study has certain limitations, which can serve as potential directions for future research. The data in this study was obtained from employees working in community health centers in Riau, Indonesia. Therefore, serious care should be taken when generalizing these findings to the context of other countries and organizational settings with different characteristics. Future research needs to further study the effect of the variables in this study by integrating other factors that drive employee performance in the workplace, such as organizational identification, quality of the leader-employee relationship, pro-work environment behavior, promotive voice, and compassion at work.

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