




The role of transformational leadership and motivation in enhancing meaningful employee performance

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ABSTRACT

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Studies on transformational leadership and employee performance, with motivation as a key mediator, have been extensively investigated because inspiring leadership can enhance employees' intrinsic motivation, which in turn positively impacts their performance. Understanding motivation's role as a mediator enables organizations to design more effective leadership strategies that optimize employee productivity and engagement. The orientation of this study is to investigate the relationship between motivation and the effect of transformational leadership on employee performance within the Indonesian manufacturing sector. An explanatory research design was employed, involving a sample of 170 employees chosen using an incidental sampling technique. Data were obtained through a structured questionnaire and evaluated using Structural Equation Modeling (SEM) with Analysis of Moment Structures (AMOS) software to test the hypothesized relationships among variables and perform Confirmatory Factor Analysis (CFA). The findings indicate that both transformational leadership and motivation have a significant impact on employee performance. Furthermore, motivation is found to mediate the relationship between transformational leadership and employee performance, highlighting its pivotal role in enhancing individual outcomes. This study contributes to the growing body of literature by emphasizing the importance of motivation as a mechanism through which transformational leadership can drive optimized performance. The results underscore the need for organizations to cultivate transformational leadership practices that not only inspire but also strengthen employees' self-esteem and self-confidence. Such strategies facilitate behavioral transformation and the development of employee potential, ultimately leading to maximized organizational performance and reinforcing the effectiveness of transformational leaders.

Contribution/Originality: The current study is original because the work culture and industrial dynamics in Indonesia possess unique characteristics that have not been explored in depth. Also, the rapid development of manufacturing necessitates adaptive and innovative leadership styles. This study's objectives are to provide empirical contributions that are relevant to enhancing productivity and human resource management (HRM).

1. INTRODUCTION

The manufacturing industry plays a pivotal role in driving organizational growth and significantly contributing to national economic development. However, this sector continues to face persistent challenges due to suboptimal employee performance, particularly regarding productivity, quality, and operational efficiency (Horváth & Szabó, 2019). One of the primary contributing dimensions is the limited capacity of workers to meet industry demands, often

stemming from inadequate skills and competencies (Kolade & Owoseni, 2022). In the Indonesian corridor, this issue is further exacerbated by the limited global competitiveness of the workforce, whose performance remains relatively low (Gayatri, Jaya, & Rumata, 2022). The problem of declining employee performance is widespread across various sectors of Indonesia's manufacturing industry. A notable example is Citra Adi Karya Engineering in Sidoarjo, where, over the past three decades, employee productivity has gradually declined at an average rate of 0.65% per month. This trend underscores the urgent need for effective leadership tactics to address performance-related challenges (Oliveira & Honorio, 2020).

Basically, transformational leadership has garnered crucial attention from both academics and practitioners as a viable solution. From the perspective of Bakker, Hetland, Olsen, and Espevik (2023), transformational leadership is articulated by the ability to inspire, intellectually stimulate, and address the individual needs of employees, thereby enhancing motivation and commitment. Transformational leaders act as guides who promote innovation, bolster employee confidence, and drive performance improvement. Consequently, enhancing employee performance through transformational leadership has emerged as a primary focus in efforts to strengthen organizational competitiveness within the manufacturing sector (Qalati, Zafar, Fan, Limón, & Khaskheli, 2022). Previous studies have frequently underscored transformational leadership as a vital pillar in transforming and shaping follower behavior. Rather than merely directing or managing, transformational leadership aims to inspire followers to achieve exceptional outcomes by encouraging critical thinking, promoting the exploration of innovative ideas, and cultivating a culture of creativity and empowerment. At its core, transformational leadership highlights the importance of motivating others through individualized consideration, intellectual stimulation, and vision (Jun & Lee, 2023; Khan, Rehmat, Butt, Farooqi, & Asim, 2020).

This leadership style is characterized by the ability to enhance employees' understanding, wisdom, and problem-solving skills traits that empower individuals to exceed routine performance. Transformational leaders encourage their followers to embrace shared organizational goals and performance parameters while simultaneously providing support and guidance to help them achieve these targets (Anderson, Baur, Griffith, & Buckley, 2017). Recent studies have consistently demonstrated a strong causal relationship between employee job performance and transformational leadership (Barling, Weber, & Kelloway, 1996). In addition, the article has shown that transformational leadership is closely associated with elements such as creativity, inspiration, and charisma, all of which contribute to improved employee performance (Cheung & Wong, 2011; Karimi, Ahmadi Malek, Yaghoubi Farani, & Liobikienė, 2023). Nevertheless, contrasting findings have also been reported. For instance, studies by Chen, Ning, Yang, Feng, and Yang (2018) and Nguyen, Hang, Hiep, and Flynn (2023) conclude that transformational leadership does not always exert a positive influence on employee performance, proposing that contextual and organizational aspects may moderate this relationship.

A substantial body of factual publication has affirmed the positive link between transformational leadership and employee performance (Barling et al., 1996). This leadership style is often associated with attributes such as creativity, inspiration, and charisma, all of which significantly contribute to enhancing organizational performance (Ayoko & Konrad, 2012; Wang, Huo, & Tian, 2021). Nevertheless, some studies have reported divergent estimates. For example, Ibrahim, Ismail, Mat, and Erhan (2023) argue that transformational leadership does not consistently exert a strong impact on employee performance. These contradictory assessments imply that the relationship may depend on various contextual and organizational variables, capturing the potential role of mediating or moderating mechanisms in shaping leadership effectiveness.

This study presents several noteworthy contributions. First, it employs theoretical perspectives and analytical frameworks that remain underexplored in the existing literature, which has predominantly concentrated on contexts such as banking services and educational institutions. In contrast, there has been limited scholarly attention directed toward examining these relationships within the manufacturing sector, despite its unique organizational characteristics and workforce dynamics. Consequently, this study addresses a critical gap by exploring

transformational leadership and its impact within a sector that differs substantially from those previously studied. Second, prior research has produced inconsistent findings regarding the link between transformational leadership and employee performance, with results ranging from strong positive effects to marginal or even negligible outcomes. These discrepancies underscore the necessity for further field investigation, particularly within various industrial contexts, to refine theoretical understanding and resolve ambiguities in the existing body of knowledge. Finally, this study advances the existing literature by investigating the mediating role of motivation in the relationship between transformational leadership and employee performance. By exploring this mechanism, the study offers insights into how leadership practices can develop employee outcomes through motivational pathways. The findings are anticipated to provide both theoretical implications for future academic inquiry and practical recommendations for organizations aiming to optimize employee performance through effective leadership and human resource strategies.

2. LITERATURE REVIEW AND HYPOTHESIS FOUNDATION

2.1. Employee Performance

Employee performance can be broadly outlined as the extent to which an individual fulfills the responsibilities and objectives assigned by the organization within a specified timeframe. It encompasses not only the outcomes achieved but also the processes undertaken to attain those projections (Cordova-Pozo & Rouwette, 2023). As stated by López-Cabarcos, Vázquez-Rodríguez, and Quiñoá-Piñeiro (2022), performance reflects the actual behaviors demonstrated by individuals in fulfilling their organizational roles, thereby serving as a measurable indicator of their contributions. Brumback (1988) emphasizes that performance comprises both behaviors (actions) and outcomes, urging that effective performance entails executing tasks in a manner that matches organizational expectations and yields tangible achievements. Zhenjing, Chupradit, Ku, Nassani, and Haffar (2022) describe performance as the outcome of efforts that are directed and shaped by job roles, objectives, and standards of excellence. Superior performance, therefore, arises not only from output but also from appropriate behavioral patterns and the efficient application of relevant knowledge, skills, and competencies (Wijayanti & Sari, 2023). In this context, performance can be understood as a dynamic interplay between individual capability and task execution, which must be systematically evaluated over time. Koopmans et al. (2011) propose that employee performance within an organizational setting can be assessed through five core dimensions: (1) work quality, (2) punctuality, (3) effectiveness, (4) work quantity, and (5) autonomy. These dimensions provide a comprehensive framework for evaluating how effectively employees contribute to organizational goals and operational efficiency.

2.2. Transformational Leadership and Employee Performance

Transformational leadership is interpreted as a leadership style that seeks to inspire meaningful change by influencing followers through vision, trust, motivation, and the encouragement of creativity (Bakker et al., 2023). Transformational leaders serve not only as mentors but also as facilitators of innovative thinking, empowering their followers to challenge traditional assumptions and adopt new perspectives. Central to this leadership process are elements such as fostering commitment, inclusive decision-making, and recognizing the unique needs and potentials of each individual (Imran, Li, Bano, & Rashid, 2025; Korkmaz, Van Engen, Knappert, & Schalk, 2022; Ly, 2024). As reported by Sott and Bender (2025), transformational leaders tend to excel during times of uncertainty and organizational change due to their proactive mindset and adaptability. Moreover, this leadership style has been shown to enhance psychological empowerment by promoting self-confidence and personal development among employees.

Bass (1990) delineated four core dimensions of transformational leadership: (1) inspirational motivation where leaders articulate a compelling vision that inspires followers, (2) individualized consideration where leaders provide personalized support and mentorship, (3) idealized influence where leaders serve as ethical role models and instill pride, and (4) intellectual stimulation where leaders encourage creativity and independent thinking. The productivity of transformational leadership is also influenced by individual behaviors and leadership styles, which directly impact

leader performance and subordinate outcomes (Deng, Gulseren, Isola, Grocutt, & Turner, 2023). In the fields of organizational behavior and HRM, transformational leadership has emerged as a critical factor influencing employee performance. Several past studies have confirmed a positive relationship between transformational leadership and employee performance (Bustani & Juniar, 2023; Lee & Hidayat, 2018; Qalati et al., 2022; Shang, 2023). In line with this theoretical base and evidence, the following hypothesis is proposed.

H₁: The effect of transformational leadership on employee performance.

2.3. Motivation and Employee Performance

Motivation has long been recognized as a primary driver of human behavior. As mentioned by Bandhu et al. (2024), individuals are motivated to act in order to fulfill specific hierarchical needs and aspirations. Salsabila, Cahyantise, Putri, Haryadi, and Wahyudi (2024) clarify motivation as the willingness to exert considerable effort toward achieving organizational objectives, contingent upon the extent to which these efforts satisfy personal needs. From a psychological perspective, motivation is viewed as a composite of internal and external forces that influence task initiation, direction, intensity, and persistence (Kaur, Hang, & Nur, 2017). Biggs, Seech, Johnston, and Russell (2024) depict motivation as a process that precedes purposeful action, particularly relevant for individuals facing both physical and psychological constraints. Essentially, motivation serves as the internal drive that inspires individuals to pursue specific goals. Rachman (2022) underlines this perspective by explaining motivation as a force that propels individuals to act in order to achieve desired outcomes. Drawing from Maslow's hierarchy of needs, Rachman (2022) expands the model to include eight categories of needs: (1) desire-driven needs, (2) self-actualization needs, (3) aesthetic needs, (4) cognitive needs, (5) esteem needs, (6) love and belonging needs, (7) safety needs, and (8) biological and physiological needs. Once a particular need is fulfilled, it ceases to be a motivational dimension, making way for higher-level needs.

Motivation is widely regarded as one of the most critical pillars in navigating employee performance. It reflects an individual's willingness to engage in task completion with persistence and diligence (Duan & Deng, 2025; Duckworth, Peterson, Matthews, & Kelly, 2007). Some studies consistently demonstrate that motivated employees tend to achieve more, significantly contributing to organizational effectiveness and goal achievement (Lee & Raschke, 2016; Manzoor, 2012). Kiruja and Mukuru (2013) emphasize that motivation is a key element of employee performance, with higher degrees of motivation correlating with improved performance outcomes. Likewise, Lee and Raschke (2016) argue that organizational success depends on the presence of highly motivated employees, who are generally more efficient and productive. Observation from Manzoor (2012) and Mohamed, Matan, and Farah (2025) further validates that employee motivation directly influences performance enhancement efforts. Baloch, Latif, and Azam (2016) advise that the individual performance of employees is significantly influenced by their motivational state. Based on the aforementioned philosophical and scientific testing, the following hypothesis is proposed:

H₂: Motivation Effect on Employee Performance.

2.4. Transformational Leadership and Employee Motivation

Transformational leadership plays a central role in fostering psychological engagement and intrinsic motivation among employees. Through effective communication and the articulation of a compelling vision, transformational leaders cultivate a sense of purpose, self-efficacy, and professional achievement in their followers. These emotional and cognitive outcomes are essential for enhancing employees' motivation and organizational commitment (Ghasabeh, Soosay, & Reaiche, 2015). By concentrating on the growth of human capital and driving strategic change aligned with market demands, transformational leaders are well-positioned to advance both individual and organizational performance. Koh, Lee, and Joshi (2019) emphasize that transformational leadership has a direct and positive impact on employee motivation. When leaders provide meaningful support, effective training, and recognition, they help create an environment where employees are intrinsically motivated to become more valuable

and productive contributors to the organization. This motivational process reflects the leader's ability to satisfy psychological needs such as competence and autonomy central aspects of Self-Determination Theory.

Observational studies further support this connection. Paper conducted by Graves, Sarkis, and Zhu (2013) and Natalia and Suwandi (2025), as well as Yusup and Maulani (2023), explained a statistically positive effect between transformational leadership and employee motivation. These findings indicate that transformational leaders play a central role in activating motivational drivers, which ultimately influence work-related behaviors and outcomes. Besides, leadership has been reviewed as a decisive factor of employee engagement, which is closely connected to motivation (Jagannathan, 2014; Mazzetti & Schaufeli, 2022; Schaufeli, 2021). Leaders who empower their subordinates and cultivate meaningful work environments tend to elicit elevated levels of motivation, which are crucial for sustained performance and organizational growth. In light of the premise, rationale, and evidence presented previously, the following hypothesis is proposed:

H3: The effect of transformational leadership on employee motivation.

2.5. Motivation Mediates

Leadership serves a vital role in shaping employee behavior, particularly through the leader's function as an example and decision-maker in evaluating performance and allocating rewards (Lai, Tang, Lu, Lee, & Lin, 2020). Within the framework of transformational leadership, leaders not only guide and inspire but also influence the intrinsic motivations of employees. This study builds upon the work of Wang, Oh, Courtright, and Colbert (2011), which emphasized the need to identify key psychological mechanisms such as motivation that underlie the interaction between transformational leadership and desirable work outcomes. Motivation, as a psychological driver, influences behavioral choices and performance outcomes. Transformational leaders, by articulating a clear vision, encouraging innovation, and providing individualized support, can elevate employees' motivational levels, which in turn fosters greater commitment and productivity. Cerasoli, Nicklin, and Ford (2014) demonstrated that motivation is strongly connected with performance, particularly when employees perceive their tasks as insightful and aligned with their personal or professional growth.

Given these cases, motivation is anticipated to function as a mediating variable that elucidates how transformational leadership translates into enhanced performance. This perspective is bolstered by papers from Bastari, Eliyana, and Wijayanti (2020); Ekhsan and Setiawan (2021); Khan et al. (2020), and Kim, Yang, and Lee (2023), which collectively illustrates that motivation not only boosts employee engagement but also amplifies the impact of transformational leadership on performance outcomes. Thus, by inspiring employees to align their personal goals with organizational objectives, transformational leadership can indirectly influence performance through motivational pathways. Based on the recent evidence presented, the following hypothesis is proposed:

H4: Motivation mediates the relationship between transformational leadership and employee performance.

2.6. Conceptual Framework

The conceptual framework developed in this study is based on a comprehensive review of existing current facts and theoretical literature. It synthesizes key findings from previous publications that have explored the effect of transformational leadership on employee performance, with a particular emphasis on the mediating role of motivation. This framework aims to evaluate the causal relationships among the variables under investigation, namely transformational leadership, motivation, and employee performance. By incorporating motivation as an intervening variable, the model seeks to elucidate the psychological flows through which transformational leadership influences employee outcomes. The proposed conceptual study is displayed in Figure 1.

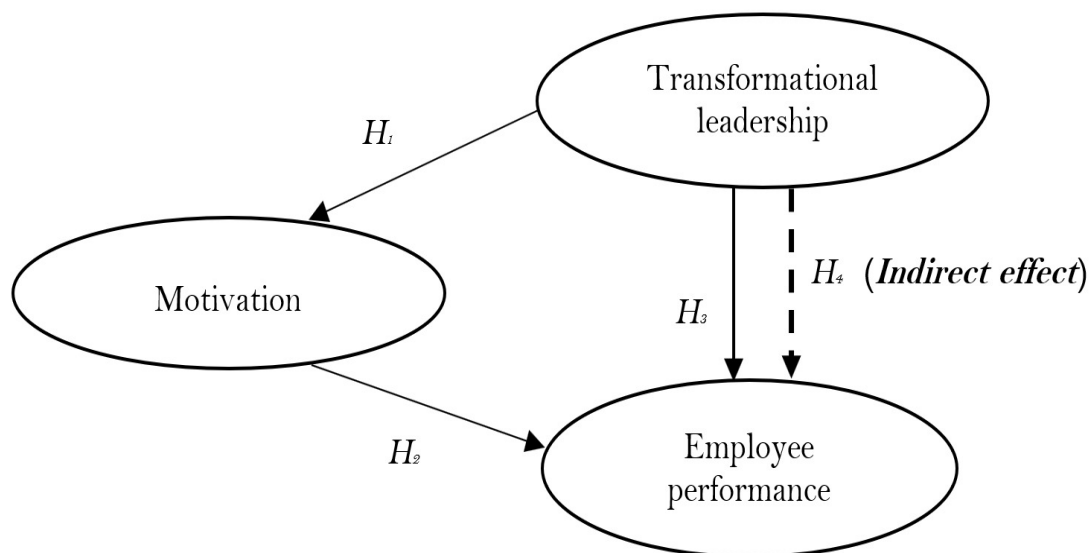


Figure 1. Study concept.

3. METHODS

3.1. Sampling and Data Collection

This study employed non-probability sampling, specifically incidental sampling, to select respondents. Incidental sampling was chosen because not all respondents in the population had an equal probability of being chosen. This technique allowed researchers to collect data from individuals who were readily available and met the study's inclusion criteria. As claimed by [Perla and Provost \(2012\)](#), [Reddock, Auer, and Landers \(2020\)](#), and [Riazi, Rezvani, and Ghanbar \(2023\)](#), incidental or judgment-based sampling is useful for obtaining focused insights from specific sources within a defined research domain. The determination of sample size was guided by the recommendations of [Hair, Sarstedt, Pieper, and Ringle \(2012\)](#), which suggests that the ideal ratio between the number of indicators and the sample size should range from 5:1 to 10:1. In this study, the research model included 17 observed indicators representing three latent variables: transformational leadership, motivation, and employee performance. Referring to this guideline, a total sample of 170 employees was deemed adequate. The respondents were selected from the Indonesian manufacturing sector, specifically from Citra Adi Karya Engineering, a manufacturing company located in Sidoarjo, East Java.

To test the proposed model and validate the measurement mechanisms, a CFA was conducted, followed by hypothesis testing using SEM with AMOS software. This technique was selected for its robustness in analyzing complex relationships among variables and latent constructs within a theoretical framework.

3.2. Measurement Instruments

This study employs an explanatory approach aimed at dissecting theoretical propositions and causal relationships among variables through hypothesis testing ([Ekayani et al., 2024](#)). A survey strategy was utilized for data collection, employing an organized questionnaire as the primary research instrument. The questionnaire comprised multiple statement items measured using a Likert-type scale, which facilitates the assessment of respondents' perceptions toward the constructs under investigation. Responses were rated on a five-point Likert scale, where 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree ([Darma et al., 2025](#)). The aggregated total score for each construct was considered a composite measure of the latent variable, consistent with the assumptions of Classical Test Theory (CTT), which treats observed scores as indicators of true scores, accounting for measurement error ([McNeish, 2023](#); [Prieto, Alonso, & Lamarca, 2003](#); [Rusch, Lowry, Mair, & Treiblmaier, 2017](#)).

Although the instrument adheres to the rating scale format commonly linked with Item Response Theory (IRT) models which emphasize probabilistic response patterns and latent trait estimation based on item difficulty and

discrimination (Kiliç, Koyuncu, & Uysal, 2023; Reise & Moore, 2023), this study primarily conforms with the CTT paradigm. As noted by Hu, Lin, Wang, and Li (2021), the Likert-type format can accommodate both CTT and IRT models due to its ordinal and parametric properties when sufficiently aggregated. Importantly, this research adopts the interpretation developed by Ariani et al. (2025), wherein the Likert scale, under certain assumptions, is treated as an interval scale rather than purely ordinal. This parameter allows for the application of factor analytic techniques such as CFA and facilitates the use of SEM in subsequent hypothesis testing.

4. RESULT

4.1. Descriptive Statistics

A total of 170 employees from the Indonesian manufacturing sector, specifically from Citra Adi Karya Engineering in Sidoarjo, participated in this study by completing the distributed questionnaire. The demographic profiles of the respondents are summarized in Table 1. Among the total respondents, 87 were male (51.18%) and 83 were female (48.82%), indicating a relatively balanced gender distribution. In terms of age, 52 employees (30.59%) were between 25 and 30 years old, while the remaining 118 employees (69.41%) were over 30 years old, suggesting a predominantly experienced workforce.

Table 1. Description of statistical samples.

Demographics	Items	Frequency	Percentage
Gender	Male	87	51.2
	Female	83	48.8
	<i>Total</i>	<i>170</i>	<i>100</i>
Age	25–30	52	30.6
	Above 30	118	69.4
	<i>Total</i>	<i>170</i>	<i>100</i>
Length of service	5–10	58	34.1
	10–15	72	42.4
	+15	40	23.5
	<i>Total</i>	<i>170</i>	<i>100</i>
Last education	Diploma	67	39.4
	Bachelor	64	37.6
	Master	39	22.9
	<i>Total</i>	<i>170</i>	<i>100</i>

Regarding tenure, 58 respondents (34.12%) had worked for 5 to 10 years, 72 employees (42.35%) had 10 to 15 years of service, and 40 employees (23.53%) had been employed for more than 15 years. These figures indicate that the majority of participants possess substantial work experience, which enhances the credibility and depth of the data collected. In terms of educational attainment, all respondents were college graduates, with 39.4% holding a diploma, 37.6% possessing a bachelor's degree, and 22.9% having earned a master's degree. The demographic distribution suggests that the selected respondents have relevant knowledge and familiarity with organizational processes, making them well-suited to provide meaningful insights into the constructs examined in this study.

4.2. Instrument Testing

To ensure the clarity and validity of the study instruments, the results from the distribution of questionnaires are presented in Table 2. This table summarizes the observed indicators designed to measure each of the variables investigated. It outlines the item distribution for the constructs of transformational leadership, motivation, and employee performance, which serve as the basis for subsequent CFA testing. The findings from the instrument testing for each observed variable indicate that all items meet the required psychometric standards. For the transformational leadership variable, which comprises 12 statement items, the Corrected Item-Total Correlation for all items exceeds the threshold of 0.30, demonstrating that all items are valid (Hair et al., 2012). Furthermore, the reliability using

Cronbach's alpha reveals acceptable internal consistency across all four indicators: idealized influence ($\alpha = 0.728$), inspirational motivation ($\alpha = 0.833$), intellectual stimulation ($\alpha = 0.679$), and individualized consideration ($\alpha = 0.81$). Since all alpha values exceed the minimum acceptable threshold of 0.6, these indicators are considered reliable and suitable for further analysis.

Table 2. Reliability analysis.

Variables and indicators	Indicator number	Cronbach's alpha	Description
Transformational leadership			
Ideal influence	1	0.728	Reliable
Inspirational motivation	2	0.833	Reliable
Intellectual stimulation	3	0.679	Reliable
Individual consideration	4	0.81	Reliable
Motivation			
Physiological needs	1	0.842	Reliable
Security needs	2	0.863	Reliable
Self-esteem needs	3	0.821	Reliable
Needs for belonging and affection	4	0.854	Reliable
Self-actualization needs	5	0.855	Reliable
Cognitive needs	6	0.733	Reliable
Aesthetic needs	7	0.861	Reliable
Needs for tendencies	8	0.876	Reliable
Employee performance			
Work quality	1	0.807	Reliable
Work quantity	2	0.777	Reliable
Timeliness	3	0.895	Reliable
Work effectiveness	4	0.806	Reliable
Work independence	5	0.8	Reliable
Critical value		> 0.6	

For the motivation variable, which consists of 24 statement items across eight dimensions, all items meet the validity criteria with a Corrected Item-Total Correlation greater than 0.3. The reliability coefficients for each dimension are as follows: biological and physiological needs ($\alpha = 0.842$), safety needs ($\alpha = 0.863$), esteem needs ($\alpha = 0.821$), love and belongingness ($\alpha = 0.854$), self-actualization ($\alpha = 0.855$), cognitive needs ($\alpha = 0.733$), aesthetic needs ($\alpha = 0.861$), and desire needs ($\alpha = 0.876$). All values exceed the recommended threshold, confirming that the instrument is both valid and reliable.

Similarly, for the employee performance variable, which comprises 15 items categorized into five indicators, the Corrected Item-Total Correlation values for all items exceed 0.3, thereby confirming item validity. The reliability analysis produces the following Cronbach's alpha values: work quality ($\alpha = 0.807$), work quantity ($\alpha = 0.777$), timeliness ($\alpha = 0.895$), effectiveness ($\alpha = 0.806$), and independence ($\alpha = 0.8$). These statistics indicate a high level of internal consistency across all dimensions. In brief, statistical testing indicates that all measurement indicators for transformational leadership, motivation, and employee performance exhibit acceptable levels of validity and reliability. For that reason, these indicators are suitable for use in subsequent SEM.

4.3. Summary of CFA Output

The CFA for the transformational leadership construct, as presented in Table 3, demonstrates that all four indicators meet the minimum threshold for standardized loading factors (i.e., > 0.5). Specifically, the factor loadings are as follows: idealized influence (0.677), inspirational motivation (0.698), intellectual stimulation (0.657), and individualized consideration (0.706). These results verify that the construct is both valid and reliable, and the measurement model exhibits an acceptable fit, thereby supporting its inclusion in the overall SEM framework.

For the transformational motivation construct, six of the eight indicators yielded standardized loading factors that exceeded the acceptable threshold: biological and physiological needs (0.577), safety needs (0.838), belongingness

and love needs (0.783), self-actualization (0.774), and aesthetic needs (0.512). Yet, three indicators esteem needs (0.132), cognitive needs (0.069), and desire/tendency needs (0.012) fell below the recommended minimum of 0.5, indicating weak contributions to the latent construct. Despite this, the overall measurement model for motivation was considered acceptable, although further model refinement or item exclusion was recommended. In SEM, it is permissible to modify the model by eliminating poorly loading indicators to enhance fit (Hair, Risher, Sarstedt, & Ringle, 2019).

Table 3. Standardized loading factor.

Variables	Indicators	Standardized loading factor	Remark
Transformational leadership	Ideal influence	0.677	Fit
	Inspirational motivation	0.698	Fit
	Intellectual stimulation	0.657	Fit
	Individual considerations	0.706	Fit
Motivation	Biological and physiological needs	0.577	Fit
	The need for a sense of security	0.838	Fit
	Self-esteem needs	0.132	No fit
	The need for belonging and compassion	0.783	Fit
	Self-actualization needs	0.774	Fit
	Aesthetic needs	0.512	Fit
	Cognitive needs	0.069	No fit
	Tendency needs	0.012	No fit
Performance	Work quality	0.736	Fit
	Job quantity	0.765	Fit
	Punctuality of work time	0.787	Fit
	Work effectiveness	0.879	Fit
	Work independence	0.763	Fit
Critical value	–	> 0.5	–

Table 3 also indicates strong factor loadings across all five indicators of the employee performance construct: work quality (0.736), work quantity (0.765), punctuality (0.787), effectiveness (0.879), and independence (0.763). Each loading exceeds the recommended threshold of 0.5, confirming the convergent validity of the construct. The measurement model for employee performance demonstrated a good fit and was therefore accepted for further SEM analysis. At this stage, removing or retaining weak indicators based on low standardized loading factors can enhance the validity and reliability of constructs in SEM models (Chinnaraju, 2025; Swami, Mañano, & Morin, 2023). However, removing too many indicators may compromise the content validity of the construct. Retaining weak indicators may be necessary if they hold theoretical significance, even if they adversely affect model quality. Therefore, the decision to remove or retain indicators requires balancing statistical robustness with theoretical relevance.

4.4. Model Evaluation and Goodness-of-Fit (GoF)

The structural model was evaluated using one-step SEM, in which both the measurement and structural models were assessed simultaneously. This method indicates that all GoF indices met the recommended thresholds, suggesting that the model demonstrates an adequate fit with the data. These findings confirm that the theoretical framework developed in this study is both quantitatively supported and statistically valid. Consequently, the model is considered to have a robust basis, as it effectively represents the relationships among the latent constructs as hypothesized. Additionally, the structural pathways illustrated in Figure 2 provide an accurate representation of the direct and indirect effects among the variables transformational leadership, motivation, and employee performance within the scope of the Indonesian manufacturing sector.

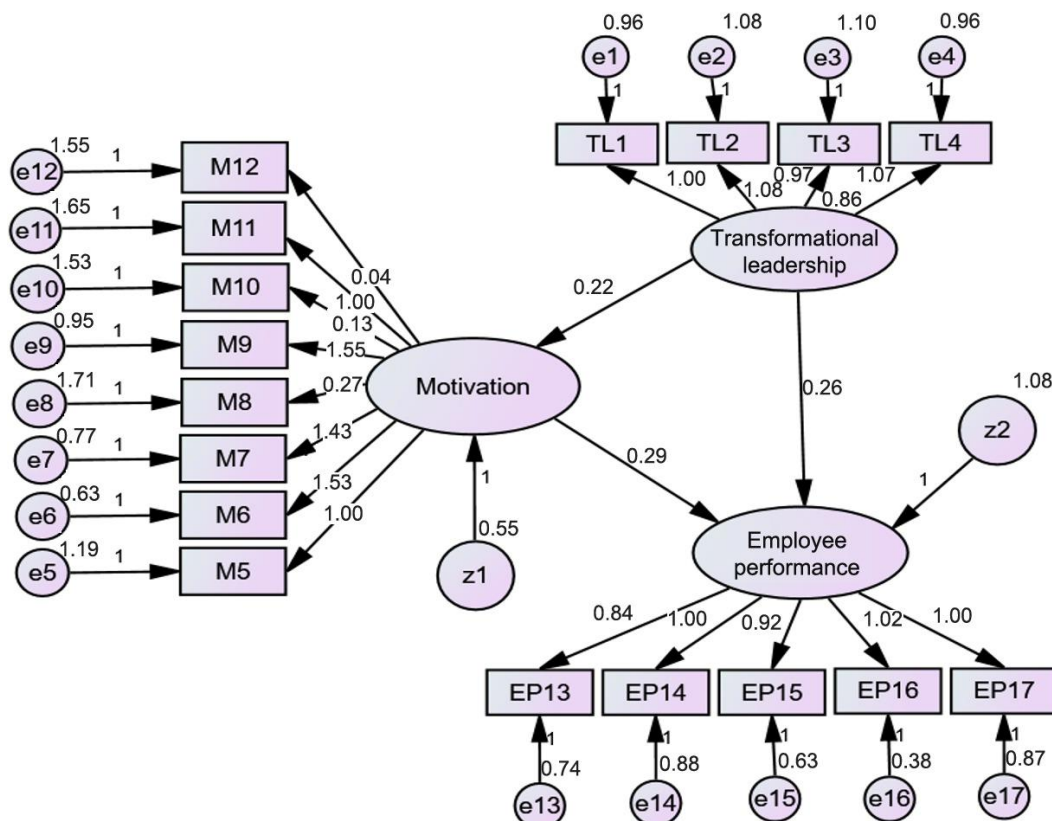


Figure 2. Evaluation of intervariable relationships.

4.5. Model Fit Assessment

As a result of the model re-specification using the one-step approach in SEM, the final model achieved an acceptable goodness-of-fit (GoF). As summarized in Figure 2 and Table 4, several fit indices were evaluated to assess the model's adequacy in explaining the relationships between latent constructs. The model demonstrated an excellent fit based on the following indices: the Root Mean Square Error of Approximation (RMSEA) was 0.000, significantly below the recommended threshold of ≤ 0.08 , indicating a very close fit. The Goodness-of-Fit Index (GFI) was 0.938, and the Adjusted Goodness-of-Fit Index (AGFI) was 0.903, both exceeding the minimum threshold of 0.9. Furthermore, the Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) each achieved a perfect score of 1, well above the required minimum of 0.95.

Table 4. GoF matrix.

Criteria	Score	Cut-off value	Remark
Chi-square	97.669	Expected to be small	Quite good
Cmin/DF	0.997	≤ 2	Good
Significance probability	0.490	≥ 0.05	Good
GFI	0.938	≥ 0.9	Good
RMSEA	0.000	≤ 0.08	Good
AGFI	0.903	≥ 0.9	Good
TLI	1	≥ 0.9	Good
CFI	1	≥ 0.95	Good
NFI	0.93	≥ 0.9	Good
PNFI	0.67	≤ 0.9	Good
PCFI	0.721	≤ 1	Good

The Normed Fit Index (NFI) was found to be acceptable at 0.930 (≥ 0.9), indicating a favorable comparative fit for the model. The p-value was 0.490, which exceeds the conventional cut-off of 0.05, further suggesting that the

hypothesized model does not significantly differ from the observed data. Although the Chi-square (χ^2) value of 97.669 is somewhat elevated, this is typical in SEM with large sample sizes and does not compromise the overall model fit. The Parsimonious Normed Fit Index (PNFI) and Parsimonious Comparative Fit Index (PCFI) were reported at 0.670 and 0.721, respectively.

While these scores fall short of the ideal range of 0.9–1, they remain acceptable, as values above 0.5 are considered adequate to support parsimony in complex models. In conclusion, the model meets the majority of the established fit criteria and is thus deemed acceptable and theoretically sound. The final structural model is supported by both data and existing theoretical frameworks, effectively illustrating the interactions among transformational leadership, motivation, and employee performance.

Table 5. Standardized regression weight of direct and indirect effect.

Linkages	Direct effects	Indirect effects	S.E	C.R	<i>p</i>
Transformational leadership ---> Motivation	0.302	0.276	0.091	3.032	0.002
Motivation ---> Employee performance	0.186	0.257	0.124	2.067	0.039
Transformational leadership ---> Employee performance	0.238	0.299	0.124	2.406	0.016
Transformational leadership ---> Motivation ---> Employee performance	—	0.071	0.041	1.711	0.043

Table 5 also demonstrates that transformational leadership has a significant indirect effect on employee performance through motivation. This is evidenced by the Sobel test, which yielded a value of 1.711 with a significance level of 0.043, indicating statistical significance at the 5% level ($p < 0.05$). These results confirm that employee motivation significantly mediates the relationship between transformational leadership and employee performance. In brief, transformational leadership enhances employee motivation, which, in turn, contributes to improved employee performance in achieving organizational goals. This mediating effect suggests that motivated employees are better equipped to adapt to transitions in their work environment, ultimately leading to greater contributions toward the company's performance objectives.

5. DISCUSSION

The quality of HR holds a pivotal position in facilitating organizational change, especially in adapting to new regulations and job responsibilities. This implies that the company's efforts to enhance employee recognition and strengthen work outcomes are both justified and effectively implemented. The significant impact of transformational leadership underlines the importance of employees in achieving tasks that are in line with organizational expectations and performance targets. In this domain, transformational leadership fosters employees' cognitive and emotional engagement by aligning their individual aspirations with organizational goals. Leaders who adopt this leadership style demonstrate a profound understanding of their employees' needs, motivating them to produce higher-quality work. Theoretically, this coincides with the perspective that transformational leadership cultivates self-confidence, intrinsic motivation, and autonomy among employees (Al-Mansoori & Koç, 2019; Al Harbi, Alarifi, & Mosbah, 2019; Dias, Pascoal, Pereira, & Costa, 2022; Jensen & Bro, 2018).

In the opinion of Cahyono (2024) and Shafi, Zoya, Lei, Song, and Sarker (2020), transformational leaders inspire trust, stimulate intellectual development, motivate subordinates, and support the expression of innovative ideas. They also engage employees in decision-making processes, foster loyalty, and recognize the unique needs of each individual, traits that are essential to effective leadership. Hence, transformational leadership significantly enhances employee performance. These findings are consistent with previous publications, which have also detected a significant influence of transformational leadership on employee performance across various organizational scopes (Hendrayanti & Sari, 2024; Jiatong et al., 2022; Ningsih, Wijaya, Muntahari, & Damayanti, 2023).

Employees demonstrate a comprehensive understanding of work regulations that align with organizational policies, including a strong commitment to business ethics and work discipline. These components significantly contribute to achieving organizational performance targets, particularly when fueled by employee motivation. Motivated employees are more likely to embrace the ideas and inspiration conveyed by transformational leaders. They tend to feel more comfortable in their roles, viewing the leader's vision not as a burden but as a guiding framework that facilitates task execution and enhances work outcomes. Motivation acts as a catalyst that inspires employees to take action, especially when it is reinforced by recognition and appreciation, which further enhances their capacity to perform (Fahriana & Sopiah, 2022; Lee & Raschke, 2016). Employees with strong intrinsic motivation are driven by internal beliefs and competencies, enabling them to meet organizational goals with minimal reliance on external support. Additionally, maintaining self-esteem is crucial, as it fosters positive contributions to the organization through strengthened motivation, empowering individuals to overcome perceived difficulties.

This process is further supported by transformational leaders who consistently provide inspiration and communication aimed at organizational improvement. The presence of inspirational motivation within the leadership framework ensures that employees' autonomy and sense of self-worth are maintained, contributing to advanced task execution and reduced workload stress in achieving corporate targets. In turn, employees demonstrate respect and commitment toward transformational leaders who actively engage them in their tasks. Accordingly, transformational leadership plays an essential role in improving employee motivation, leading to increased work quality and performance. These findings are in line with previous manuscripts by Vuong, Giao, and Van Hung (2023) and Yusup and Maulani (2023), which affirms the significant effect of transformational leadership on employee motivation.

This text emphasizes the critical importance of a powerful work ethic in enabling organizations to achieve their objectives by enhancing employee performance. When employees' autonomy in their tasks is recognized and leveraged as a motivational aspect, their self-esteem regarding their work tends to increase. Great levels of intrinsic motivation among employees are closely associated with their ability to adapt to various tasks and manage multiple projects efficiently. This positive correlation indicates that deeply motivated employees are more dedicated to meeting organizational expectations and delivering exceptional performance. Moreover, the combination of autonomous work and motivational reinforcement aimed at sustaining employee self-esteem fosters greater independence and enhances work quality outcomes that are highly valued by the organization.

Even under high workload situations, employees can maintain their self-worth and motivation, which positively impacts organizational performance. The findings also indicate that despite variations in the execution of professional duties, employees remain motivated to preserve their self-esteem, resulting in consistently strong job performance. These results support previous research by Ibrahim and Brobbey (2015) and Zameer, Ali, Nisar, and Amir (2014) which confirms that employee performance is positively affected by motivation. The greater the internal motivation derived from personal values and self-belief, the better the work outcomes achieved in fulfilling corporate goals.

This text illustrates that employees are capable of fostering a positive work environment, recognizing the rewards provided by the organization, and engaging in self-development to enhance the quality of their work. Moreover, they exhibit proactive behavior in responding to organizational directives by taking the initiative to complete tasks and maintain high levels of motivation, both in task execution and in social interactions with colleagues. Employees are aware of the motivating factors within their work environment, which drives them to continuously improve their performance through ongoing learning, personal development, and the implementation of more effective work strategies. With strong organizational support, they contribute to creating a collaborative and constructive workplace climate. Besides, employees tend to display optimal performance to uphold their professional reputation and self-esteem, as they are inspired and confident in completing their responsibilities independently and with relative ease.

Their ability to manage high workloads while maintaining motivation results in increased productivity. The stronger an employee's internal motivation to achieve performance targets, the greater their willingness to engage

in meaningful work-related activities. In principle, motivation is identified as the internal drive to satisfy needs, compelling individuals to take action (Cook & Artino Jr, 2016; Urhahne & Wijnia, 2023). Therefore, enhancing employee performance requires strengthening motivation through positive reinforcement, clearly defined goals, and a supportive work environment. Motivation plays a critical role in uplifting employees to pursue excellence, both in achieving personal goals and advancing their careers. It influences various aspects of individual performance by fulfilling psychological needs and increasing job satisfaction. As a result, even under demanding workloads, employees can maintain their commitment and continuously strive for personal and professional growth. These findings are in line with a previous manuscript by Supriatna, Narimawati, and Sunarsi (2024), which established that employee performance in the workplace is significantly and positively influenced by motivation. The higher the stage of motivation driven by internal employee support systems, the better the performance outcomes achieved in meeting organizational goals.

Employees are motivated by the messages and values conveyed by their leaders, which, in turn, enhance their performance outcomes. This motivation drives them to pursue higher performance targets, instills a stronger sense of confidence, and reinforces their belief in their ability to accomplish tasks effectively. Such behavioral changes are largely influenced by the continuous support and encouragement from transformational leaders, who seek to foster enthusiasm and engagement in the workplace. Further analysis indicates that leadership support plays a crucial role in sustaining employee motivation, particularly in enhancing the performance of those who have already demonstrated goal attainment. High levels of motivation are closely linked to the inspirational and empowering leadership style of transformational leaders, who enable employees to pattern their work with greater confidence and purpose. This underscores the notion that transformational leadership exerts a strong influence on employee motivation, which, in turn, leads to developed individual performance.

The reality from prior research consistently demonstrates that employee motivation serves as a critical mediating variable in the link between transformational leadership and employee performance. Transformational leaders boost employee motivation significantly by providing inspiration, intellectual stimulation, and individualized consideration, which ultimately contributes to improved organizational outcomes (Avolio, Bass, & Jung, 1999). Hence, effective organizational management must prioritize the development of leadership capabilities that inspire and energize employees. Motivating employees through idealized influence and inspirational motivation is essential for cultivating a high-performing workforce. This assertion is supported by previous scientific works that found transformational leadership to have a positive impact on employee performance, particularly when motivation acts as a mediating mechanism (Arous, Louail, Hima, ElRabbat, & EssaTayeb, 2024; Givens, 2008; Krishnan, 2012).

6. CONCLUSION AND IMPLICATIONS

6.1. Conclusion

The substance of this study lies in its effort to address a gap in the existing literature, as few prior investigations have explicitly tested the mediating role of motivation in the relationship between transformational leadership and employee performance. Earlier research has concentrated on the direct influence of transformational leadership on performance or has examined how employees impact motivation, without considering motivation as a central mediating construct. This oversight is critical, given the strategic role of corporate leaders in fostering motivational dynamics within organizations. This study provides fresh findings from the Indonesian manufacturing sector, specifically at Citra Adi Karya Engineering, demonstrating that performance excellence is closely linked to a culture of transformational leadership. While employees are capable of maintaining self-esteem and self-confidence, the presence of inspirational motivation and autonomous work behavior significantly enhances the quality of performance. These factors contribute significantly to work motivation.

The findings further indicate that employees with high levels of motivation exhibit greater resilience in maintaining their self-worth, even when faced with demanding workloads. At that point, motivation serves as an

effective mediator, supporting the connection between transformational leadership and employee performance. While self-esteem plays a stabilizing role, motivation remains the primary component that translates leadership influence into tangible performance outcomes. This study offers fresh perspectives into the theoretical and empirical understanding of how employee performance is shaped by both motivational processes and transformational leadership. The findings emphasize the importance for transformational leaders to actively cultivate motivation as a means to enhance employee self-esteem and confidence. Such efforts can drive meaningful behavioral change and expand the developmental trajectory of employee performance, thereby reinforcing the overall outcome of transformational leadership within the organization.

6.2. Theoretical and Practical Implications

Study on transformational leadership consistently demonstrates its substantial effect on employee motivation, which, in turn, contributes to enhanced performance outcomes. Nonetheless, this relationship is not merely direct; motivation acts as a fundamental mediating mechanism through which the influences of leadership are translated into actual behavioral performance. Thus, understanding how motivation mediates the connection between transformational leadership and employee performance is essential for both theoretical development and practical application. Leaders who adopt this style cultivate a sense of intention and intrinsic motivation among their followers, resulting in greater emotional engagement and commitment to organizational goals.

This form of leadership not only facilitates adaptive behavior but also reinforces employees' belief in their ability to exceed expectations. Thus, transformational leadership functions not only as a source of direction but also as a motivational catalyst that encourages employees to internalize organizational objectives and perform beyond their contractual obligations. The findings offer enlightening thoughts for organizational practitioners aiming to enhance employee performance through the development of transformational leadership and increased employee motivation. Organizations can implement these findings by formulating strategic initiatives designed to foster transformational leadership behaviors and align them with employee development goals.

The study verifies that transformational leadership significantly enhances employee performance, with motivation serving as a crucial mediating variable. In this part, leaders should consistently communicate a compelling vision for the prospects while employing motivational techniques such as recognition, targeted training programs, and the establishment of a helpful work environment to elevate employee morale and productivity. Practically, leaders can adopt strategies that promote team cohesion, optimism, and enthusiasm within the workplace. The findings of this study illustrate that transformational leadership has a profound and significant impact on boosting employee motivation by nurturing a positive, inclusive organizational climate and empowering individuals to realize their full potential. This, in turn, results in sustained improvements in employee performance and contributes to overall organizational effectiveness.

6.3. Limitations and Suggestions for Future Research

Despite the valuable contributions from this study in highlighting the mediating role of motivation between transformational leadership and employee performance, several limitations must be acknowledged. First, this research was conducted within a single organizational setting specifically, a manufacturing company in Indonesia (Citra Adi Karya Engineering). Hence, the generalizability of the observations may be limited across different sectors, organizational cultures, or geographical regions. Future studies are encouraged to replicate this research across a broader range of industries and in multinational contexts to validate the robustness of the mediating effect of motivation. Second, the study employed a cross-sectional design, which restricts the ability to infer causality between transformational leadership, motivation, and performance outcomes. Longitudinal studies would provide a more comprehensive understanding of how motivational processes develop over time and how leadership behaviors

sustainably influence performance. Third, the study primarily relied on self-reported data from employees, which may be susceptible to social desirability bias or common method variance.

Future studies could benefit from incorporating multiple data sources such as supervisor assessments, performance metrics, and longitudinal tracking to enhance the validity and reliability of the findings. While this study focused on motivation as a mediating variable, other psychological or contextual dimensions such as organizational culture, job satisfaction, and psychological empowerment may also play significant roles in moderating or mediating the relationship between leadership and performance. Further investigation into these variables could enrich the theoretical framework and provide a more comprehensive understanding of the mechanisms through which transformational leadership influences employee outcomes. Lastly, the study's limitation of focusing on a single sector may result in data that is overly general. Therefore, it would be beneficial for future research to include cross-sector or cross-country validation.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

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