



I am happy and I am engaged! A mediation model work motivation in a state-owned construction enterprise

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ABSTRACT

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Keywords

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This study examines the relationships among transformational leadership, employee happiness, work motivation, and employee engagement in Indonesian state-owned construction enterprises. Drawing on Job Demands–Resources (JD-R) theory, Self-Determination Theory (SDT), and Positive Psychology, the study seeks to explain how psychological resources contribute to employee engagement in project-based and high-pressure organizational environments. Data were collected from 406 employees working in five Indonesian state-owned construction enterprises and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that transformational leadership has no significant direct effect on either work motivation or employee engagement. In contrast, employee happiness demonstrates a strong positive effect on both work motivation and employee engagement. Work motivation significantly predicts employee engagement and mediates the relationship between employee happiness and employee engagement. However, work motivation does not mediate the relationship between transformational leadership and employee engagement. These findings provide theoretical and empirical contributions by challenging the dominant leadership-centered perspective in employee engagement research. The results suggest that internal psychological resources may play a more important role than leadership behaviors in bureaucratic and project-oriented organizational contexts. Furthermore, the study establishes employee happiness as an antecedent of work motivation, which subsequently enhances employee engagement, thereby extending the integration of Positive Psychology, JD-R theory, and SDT in explaining employee engagement. Practically, the findings suggest that organizations should prioritize employee well-being and happiness initiatives as strategic mechanisms for strengthening motivation and sustaining employee engagement.

Contribution/Originality: This study extends employee engagement research in Indonesian state-owned construction enterprises by positioning employee happiness as a strategic antecedent and work motivation as a psychological mechanism. The findings reveal that employee happiness significantly enhances engagement, whereas transformational leadership has no significant direct effect, highlighting the importance of employee well-being.

1. INTRODUCTION

Employee engagement has been incorporated by contemporary organisations due to its robust association with productivity (Kwarteng, Frimpong, Asare, & Wiredu, 2024), performance (Prentice, Wong, & Lin, 2023), and long-term sustainability (Abid, Asif, & Abbas, 2025). However, organisations continue to find the most effective ways to enhance and sustain employee engagement (Al-Refaei, Ali, Ateeq, & Alzoraiki, 2023). Growing evidence indicates

that engaged employees show vigour and dedication in their work, enabling organisations to remain adaptive and competitive in environments (Dunlop & Scheepers, 2023). In this matter, sustaining engagement is challenging in project-based and high-pressure sectors, where employees operate under tight deadlines and structural constraints.

Leadership is widely regarded as a critical antecedent of employee engagement (Zahari & Kaliannan, 2023). Among various leadership styles, the transformational style has received considerable scholarly attention for its ability to articulate vision and stimulate intellectual growth (Bass & Riggio, 2006; Bass & Avolio, 1994). Recent research suggests that transformational leaders can enhance employees' psychological energy and sense of meaning, thus fostering engagement (Rabiul, Mansur Ahmed, & Rashid, 2023). Related to demanding and bureaucratic matters, leadership behaviours cannot be translated into sustained engagement, and this indicates that additional psychological mechanisms can shape this relationship (Siyal, 2023).

In addition to leadership, increasing attention has been directed toward employee happiness as a vital personal resource (Shelke & Shaikh, 2023). Employee happiness shows a multidimensional state of work-related well-being encompassing positive affect, job satisfaction, meaningfulness, and supportive social relationships (Fisher, 2010; Hafeez et al., 2024). Grounded in Positive Psychology, happiness at work has been associated with resilience and proactive behaviour in work roles (Aboramadan & Kundi, 2023). Extant research also involves work motivation as a central psychological path linking resources to engagement outcomes (Suyono, Eliyana, Ratmawati, & Elisabeth, 2021; Xu et al., 2022). While drawing from Self-Determination Theory (SDT), motivation varies in quality, with autonomous motivation being effective in sustaining engagement and well-being (Deci & Ryan, 2000; Gagné & Deci, 2005).

Although prior studies have established significant relationships in this theme, several gaps remain in the context of state-owned construction enterprises. First, most existing research has been conducted in private-sector or service-oriented organisations (Abolnasser, Abdou, Hassan, & Salem, 2023; Chen & Cuervo, 2022; Mansoor, Wahab, Jahan, & Islam, 2022), with limited attention to state-owned enterprises (SOEs), primarily in the construction industry, where bureaucratic structures and rigid regulations prevail. Second, while transformational leadership has been widely linked to engagement (Bader, Gielnik, & Bledow, 2023; Ntseke, Mitonga-Monga, & Hoole, 2022), fewer studies have examined employee happiness as a complementary predictor within an integrated framework. Third, previous research utilized work motivation as a mediator between leadership and performance [e.g., (Abdelwahed, Al Doghan, Saraih, & Soomro, 2025; Alhempri et al., 2024)]. But there has been little work on its mediation between employee happiness and engagement, which is available mostly in public-sector project-based organisations.

In this context, the current study aims to address these gaps by investigating the relationships of transformational leadership with two psychological variables: employee happiness and work motivation, and their mediation role on employee engagement in Indonesian state-owned construction firms. Drawing on the JD–R model, Self-Determination Theory, and Positive Psychology, the study proposes a sequential mediation model in which employee happiness enhances work motivation, which can drive employee engagement. Transformational leadership and employee happiness are conceptualised as contextual and personal resources, while work motivation functions as the key psychological transmission mechanism. In detail, this study proposes three research questions (RQs).

RQ1: How does transformational leadership promote employee engagement in a state-owned construction enterprise?

RQ2: How does employee happiness influence employee engagement in a state-owned construction enterprise?

RQ3: Does work motivation mediate the relationship between transformational leadership and employee happiness on employee engagement in a state-owned construction enterprise?

The paper is provided as follows. This paper begins with a background outlining the research background and objectives, followed by a literature review and method sections. Results are then presented and discussed. Finally, this paper ends with the conclusions and implications.

2. LITERATURE REVIEW

2.1. Theoretical Foundations and Contextual Tension

The JD–R model has been valuable for comprehending the interaction between job demands and work engagement (Bakker & Demerouti, 2014). According to this framework, employee engagement emerges from the interaction between job demands and available resources, including both job resources and personal resources (e.g., well-being and motivation) (Bakker & Demerouti, 2008). Concerning high-demand environments, external leadership behaviours can be insufficient to sustain engagement unless employees possess adequate internal psychological resources. In this work, employee engagement, stated as a positive and work-related state indicated by vigour and dedication (Kahn, 1990; Schaufeli, 2013), has been recognised as the driver of organisational effectiveness. Using the JD–R framework, engagement emerges when employees possess sufficient job and personal resources to deal with demanding work environments (Bakker & Demerouti, 2008). In addition, this study used the SDT to clarify further that resources influence work outcomes primarily through motivational activation (Deci & Ryan, 2000). Autonomous motivation translates psychological resources into sustained effort and persistence. Integrating JD–R and SDT, this suggests that a resource, motivation, engagement process in which personal well-being can exert better and more direct effects than contextual leadership behaviours in demanding organisational settings (see Figure 1). This integrative perspective is relevant for state-owned construction enterprises that are particularly susceptible to project intensity as well as performance pressure, restricting leadership discretion and simultaneously amplifying internal employees' psychological capacities.

2.2. Transformational Leadership, Employee Engagement, and Work Motivation

Transformational leadership has traditionally been positioned as a key job resource (Bass & Riggio, 2006). It is expected to foster meaningfulness and psychological safety, two core conditions of engagement (Kahn, 1990). However, recent empirical studies suggest that the strength of this relationship is context-dependent. In highly structured and project-driven environments, formal systems, standardised procedures, and performance pressures can limit the direct behavioural impact of leaders on employees' psychological states (Inceoglu, Thomas, Chu, Plans, & Gerbasi, 2018). Under this condition, engagement cannot rely more on internal psychological resources than on leadership influence alone. Transformational leadership is expected to enhance motivation by focusing on workers' needs for autonomy and relatedness. However, in rigid and standardised organisational systems, its influence can be attenuated. Therefore, while a positive effect is hypothesised, it is acknowledged that this effect is probably weaker relative to personal resources. However, structural constraints can reduce leaders' capacity to influence employees' internal motivation. Hence, the first set of hypotheses is provided.

H₁: Transformational leadership affects employee engagement.

H₂: Transformational leadership affects work motivation.

2.3. Employee Happiness, Employee Engagement, and Work Motivation

Employee happiness expands psychological resources and enhances intrinsic motivational states. Prior studies have shown that employee happiness significantly influences employee engagement and work motivation, creating a positive cycle that benefits both employees and organisations. Happiness at work drives a sense of enjoyment and admiration for the workplace that can enhance employee engagement (Vakeel, Shukla, & Singh, 2023). Some scholars noted that incorporated employees are more committed and willing to advocate for their organisation to promote higher levels of motivation and job satisfaction (Ahmeti, 2023; Mansor, Jusoh, Hashim, Muhammad, & Omar, 2023). Moreover, happiness at work has been shown to elucidate a considerable part of the variation in employee engagement (Shelke & Shaikh, 2023). This sense of ownership and engagement further boosts their motivation, as they feel more allied to the organisational goals and values (Mathew, 2023). Thus, the hypotheses are provided below.

H₃: Employee happiness drives employee engagement.

H₁: Employee happiness promotes work motivation.

2.4. The Role of Work Motivation

Work motivation is one determinant of success for individuals and organisations. It is narrated as a set of vigorous forces originating both within and beyond an individual to affect choices and persistence in work-related activities (Kanfer, Frese, & Johnson, 2017). Some works have stated that transformational leaders evoke and inspire employees by fostering a supportive work environment with the empowerment of the work environment that enhances intrinsic motivation (Chen & Cuervo, 2022; Udin, 2023). This intrinsic motivation, in turn, can lead to enhanced levels of work engagement, as employees feel more connected to their work and go beyond in their roles (Layek & Koodamara, 2026). Prior examinations have revealed that transformational leadership affects work engagement through various motivational paths, covering intrinsic motivation and psychological empowerment (Chen & Cuervo, 2022; Layek & Koodamara, 2026; Udin, 2023).

In addition, work motivation ensures that employees not only feel happier but also more connected and committed to their work, thus increasing their engagement levels. Furthermore, the relationship between happiness and engagement is strengthened when staff notice their work as meaningful and rewarding (Wahyanto, Damayanti, Supriyanto, & Hartini, 2019). JD-R and SDT underline that resources influence engagement through motivational processes. However, the strength of this mediation varies depending on whether the resource is contextual (leadership) or personal (happiness). Concerning this study, personal resources can be translated into engagement through motivation more than leadership behaviours. Thus, the last set of hypotheses is presented.

H₂: Work motivation drives employee engagement.

H₃: Work motivation mediates leadership and engagement.

H₄: Work motivation mediates employee happiness and employee engagement.

3. METHODOLOGY

3.1. Research Design

This study adopted a quantitative research approach with a causal explanatory design to examine the relationships among transformational leadership, employee happiness, work motivation, and employee engagement. A quantitative approach is suitable as it enables objective measurement of latent constructs and statistical testing of hypothesised causal connections using numerical data. The causal design allows the study to assess both direct and indirect effects among variables, particularly the mediating role of work motivation in linking leadership and happiness to employee engagement. Thus, the research model is detailed in Figure 1.

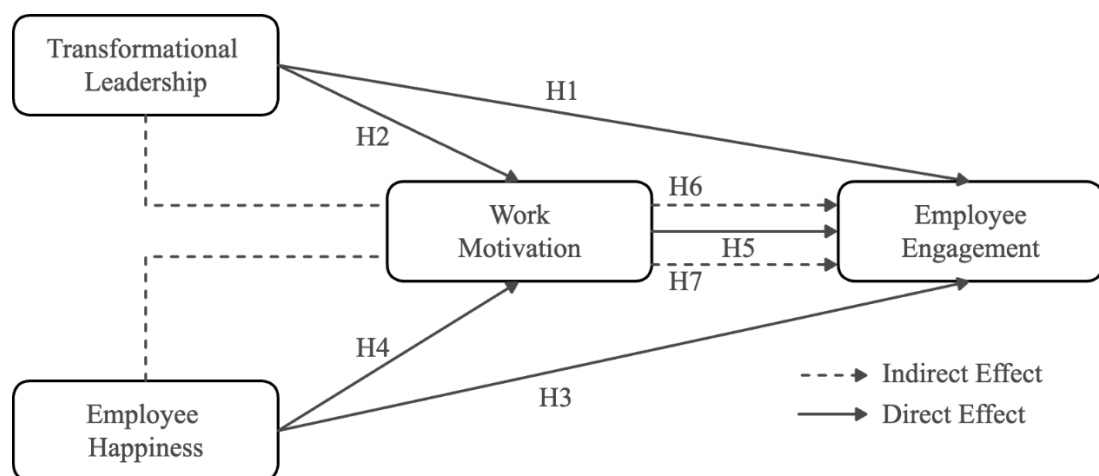


Figure 1. Research Model.

3.2. Population and Sample

The population of this work comprises permanent employees working in five Indonesian state-owned construction enterprises: PT Adhi Karya (Persero) Tbk, PT Hutama Karya (Persero), PT PP (Persero) Tbk, PT Waskita Karya (Persero) Tbk, and PT Wijaya Karya (Persero) Tbk. The total population across these organisations is approximately 10,667 employees. Sample size determination followed the recommendation of Hair, Hult, Ringle, and Sarstedt (2017) for Structural Equation Modelling (SEM), which notes a minimum of five to ten observations per indicator. Considering the model of this work that consists of 40 indicators, a minimum sample size of 200 respondents was included, sufficient to reach model stability.

3.3. Sampling Technique

A non-probability purposive sampling technique was applied. The participants were included considering the criteria to ensure their suitability for the main objectives. Eligible participants were (1) permanent employees with a minimum tenure of one year, (2) employees included in operational or project-related matters, and (3) individuals willing to participate voluntarily in the work. The questionnaire was performed using Google Forms to facilitate access across geographically dispersed project sites.

3.4. Measurement and Data Collection Procedure

Data were collected using a structured self-administered questionnaire provided on a five-point Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"). The use of a five-point scale was considered appropriate due to its clarity, reliability, and suitability for behavioural research across diverse educational backgrounds (Taherdoost, 2019; Tomei, Chin, & Ng, 2021). The instruments were adapted from the scales in prior works to ensure content validity (see Table 1). The questionnaire was developed in several stages, including conceptualisation of the construct, operationalisation into measurable indicators, and pilot testing to assess clarity and reliability.

Table 1. Measurement of each variable.

Variables	Dimensions and item	Sources
Employee Engagement	6 Dimensions with 18 Items	Kahn (1990)
Transformational Leadership	4 Dimensions with 24 Items	Bass and Riggio (2006)
Employee Happiness	4 Dimensions with 8 Items	Fisher (2010)
Work Motivation	4 Dimensions with 8 Items	Deci and Ryan (2000)

3.5. Data Analysis

This study followed two stages of data analysis, including measurement and structural model. Construct validity was checked using convergent and discriminant validity with PLS-SEM. Convergent validity was performed by checking outer loadings and AVE values. Moreover, discriminant validity was determined using two approaches: Fornell–Larcker and HTMT. Later, construct reliability was performed considering Cronbach's Alpha (CA) and Composite Reliability (CR).

3.6. Common Method Bias

A self-reported questionnaire from a single source has the possibility of common method bias (CMB). Hence, Harman's single-factor estimation was performed, and the output indicates that the first factor explained less than 50% of the total variance, which CMB is not a concern in this study. To support this, a full collinearity assessment was performed by considering VIF values for all constructs. The VIF values were below the cut-off of 3.3, indicating the absence of CMB.

4. RESULTS AND DISCUSSION

4.1. Respondent Demographics

The final sample consisted of 406 employees from five Indonesian state-owned enterprises (SOEs) operating in the construction sector. As presented in Table 2, the majority of respondents were male (71%, $n = 289$), while female employees accounted for 29% ($n = 117$). Regarding age distribution, most respondents were in the 25–34 years category (39%, $n = 158$), followed by those aged 35–44 years (30%, $n = 120$) and 45–54 years (26%, $n = 105$). Five percent ($n = 20$) of respondents were ≥ 55 years old, and one percent ($n = 3$) were 21–24 years old. Of tenure, employees with greater than 10 years of service represented the largest cohort (57%, $n = 232$). This was followed by respondents with 7–10 years of tenure (23%, $n = 93$), 4–6 years (12%, $n = 48$), and 1–3 years (8%, $n = 33$). At the start of the results module of this study, we first sort out the stratified educational background data of all respondents: bachelor's degree holders account for 61% ($n=246$), master's and doctoral graduate degree holders for 33% ($n=136$), D3 associate degree holders for 4% ($n=16$), and holders of high school or vocational education credentials for 2% ($n=8$). Based on work assignment, 66% ($n = 266$) of respondents were office-based employees, whereas 34% ($n = 140$) were assigned to project sites. As reported in Table 2, the largest group of participants worked in the operations cluster (58%, $n = 234$), followed by people/HR functions (22%, $n = 91$), finance (12%, $n = 50$), commercial (6%, $n = 26$), and technology (1%, $n = 5$).

Table 2. Demographics of respondents.

Category	Characteristics	Total	%
Company	PT. Adhi Karya (Persero) Tbk	258	63.55
	PT. Hutama Karya (Persero)	39	9.61
	PT. PP (Persero) Tbk	18	4.43
	PT. Waskita Karya (Persero) Tbk	64	15.76
	PT. Wijaya Karya (Persero) Tbk	27	6.65
Gender	Male	289	71
	Female	117	29
Age	21-24	3	1
	25-34	158	39
	35-44	120	30
	45-54	105	26
	> 55	20	5
Work Experience	1-3	33	8
	4-6	48	12
	7-10	93	23
	> 10	232	57
Education Level	Senior High School / Vocational High School (SMA/SMK)	8	2
	Diploma (D3)	16	4
	Bachelor's Degree (S1)	246	61
	Postgraduate (Master's/Doctorate) (S2/S3)	136	33
Work Type	Office	266	66
	Project	140	34
Department	Commercial	26	6
	Finance	50	12
	Operation	234	58
	People	91	22
	Technology	5	1

4.2. Measurement Model

The measurement model was assessed before testing the structural relationships to ensure the adequacy of reliability and validity of the latent constructs. Indicator reliability was evaluated by examining outer loadings. The results indicate that most indicators achieved loadings exceeding the threshold of 0.70, demonstrating satisfactory reliability. Several indicators with loadings between 0.50 and 0.70 were retained, as their inclusion did not reduce the AVE below the acceptable threshold, consistent with the PLS-SEM guidelines. Convergent validity was assessed using AVE values.

As reported in Table 3, all constructs reported AVEs exceeding 0.50, indicating that each latent construct can explain more than half of its indicators' variance. This confirms adequate convergent validity across all constructs. Internal consistency reliability was evaluated using CA and CR. As clearly illustrated in the table, all constructs and their dimensions exceeded the threshold of 0.70 to show robust internal consistency to estimate their respective constructs.

Table 3. Validity and Reliability.

Variables	Dimension	AVE	CA	<i>rho_c</i>
Transformational Leadership	Individualized Consideration	0.806	0.952	0.961
	Intellectual Stimulation	0.818	0.955	0.964
	Idealized Influence	0.830	0.959	0.967
	Inspirational Motivation	0.830	0.958	0.967
Employee Happiness	Social Happiness	0.764	0.692	0.866
	Cognitive Happiness	0.813	0.770	0.897
	Affective Happiness	0.909	0.900	0.952
	Job-related Happiness	0.911	0.902	0.953
Work Motivation	Extrinsic motivation	0.524	0.871	0.898
	Intrinsic motivation	0.727	0.946	0.955
Employee Engagement	Absorption	0.616	0.689	0.825
	Cognitive involvement	0.709	0.592	0.830
	Vigour	0.742	0.884	0.920
	Dedication	0.789	0.910	0.937
	Physical Involvement	0.835	0.802	0.910
	Emotional Involvement	0.923	0.917	0.960
Transformational Leadership	-	0.721	0.983	0.984
Employee Happiness	-	0.676	0.930	0.943
Work Motivation	-	0.524	0.937	0.945
Employee Engagement	-	0.545	0.946	0.952

As previously stated, discriminant validity was checked using two approaches: the Fornell–Larcker criterion and HTMT. As reported in Table 4, the square root of the AVE for each variable was higher than its correlations with other constructs to meet the criterion.

While the result of HTMT is presented in Table 5 to show that the values were lower than the threshold of 0.90 to accomplish the criteria.

Table 4. Discriminant Validity—Fornell–Larcker.

Variables	Employee Engagement	Employee Happiness	Transformational Leadership	Work Motivation
Employee Engagement	0.738			
Employee Happiness	0.840	0.822		
Transformational Leadership	0.635	0.721	0.849	
Work Motivation	0.766	0.784	0.597	0.724

Table 5. Discriminant Validity—HTMT.

Variables	Employee Engagement	Employee Happiness	Transformational Leadership	Work Motivation
Employee Engagement	-	0.886	0.655	0.791
Employee Happiness	0.886	-	0.756	0.819
Transformational Leadership	0.655	0.756	-	0.650
Work Motivation	0.791	0.819	0.650	-

4.3. Structural Model

After completing prior checking (measurement), the structural model was presented to test the hypothesised connections among variables. The assessment followed established PLS-SEM procedures by concerning path coefficients (β), t-values, p-values, coefficients of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2). Statistical significance was evaluated following a bootstrapping stage with 5,000 subsamples at a 5% significance level ($\alpha = 0.05$), where associations were determined to be significant when t-values > 1.96 and p-values < 0.05 . The structural model demonstrates strong explanatory power. As reported in Table 6, the model explains 73.6% of the variance in employee engagement ($R^2 = 0.736$) and 61.6% of the variance in work motivation ($R^2 = 0.616$).

Table 6. R-Square.

Variables	R-square
Employee Engagement	0.736
Work Motivation	0.616

This study conducted an f^2 effect size analysis based on Table 7 to clarify the relative contributions of each exogenous construct: the f^2 value of employee well-being on work motivation is 0.715, which represents a large effect; its f^2 value on employee engagement is 0.365, which represents a medium-to-large effect; and the f^2 value of work motivation on employee engagement is 0.110, which represents a small-to-medium effect, indicating that motivation provides an important and driver of engagement. Transformational leadership is, on the other hand, characterized by negligible effect sizes, limiting practical relevance ($f^2 = 0.005$) for employee engagement and ($f^2 = 0.002$) for work motivation within the tested model.

Table 7. F-Square.

Variables	Employee Engagement	Work Motivation
Employee Happiness	0.365	0.715
Work Motivation	0.110	-
Transformational Leadership	0.005	0.002

Predictive relevance was assessed using the Stone–Geisser Q^2 value obtained through a blindfolding procedure. As outlined in Table 8, the Q^2 values for employee engagement ($Q^2 = 0.730$) and work motivation ($Q^2 = 0.610$) are well above zero, revealing robust predictive relevance and confirming the model's capability to predict endogenous constructs accurately.

Table 8. Results of Q-Square.

Variables	Q^2 Predict	RMSE	MAE
Employee Engagement	0.730	0.523	0.386
Work Motivation	0.610	0.628	0.477

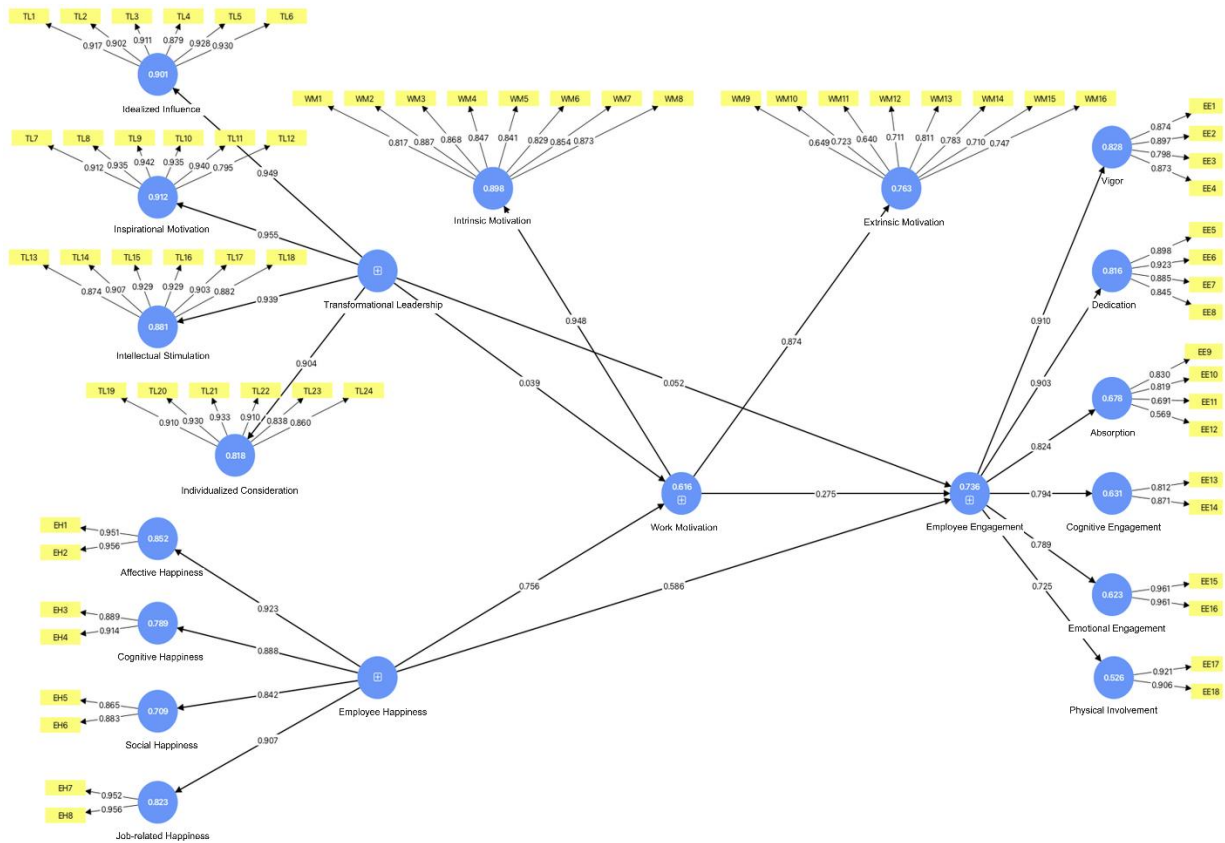


Figure 2. Results of the Loadings Factor Model (before modification).

Figure 2 presents the initial measurement model before modification, illustrating the factor loadings of all indicators on their respective constructs. The model serves as the preliminary assessment of convergent validity before the removal of indicators that did not meet the recommended loading threshold.

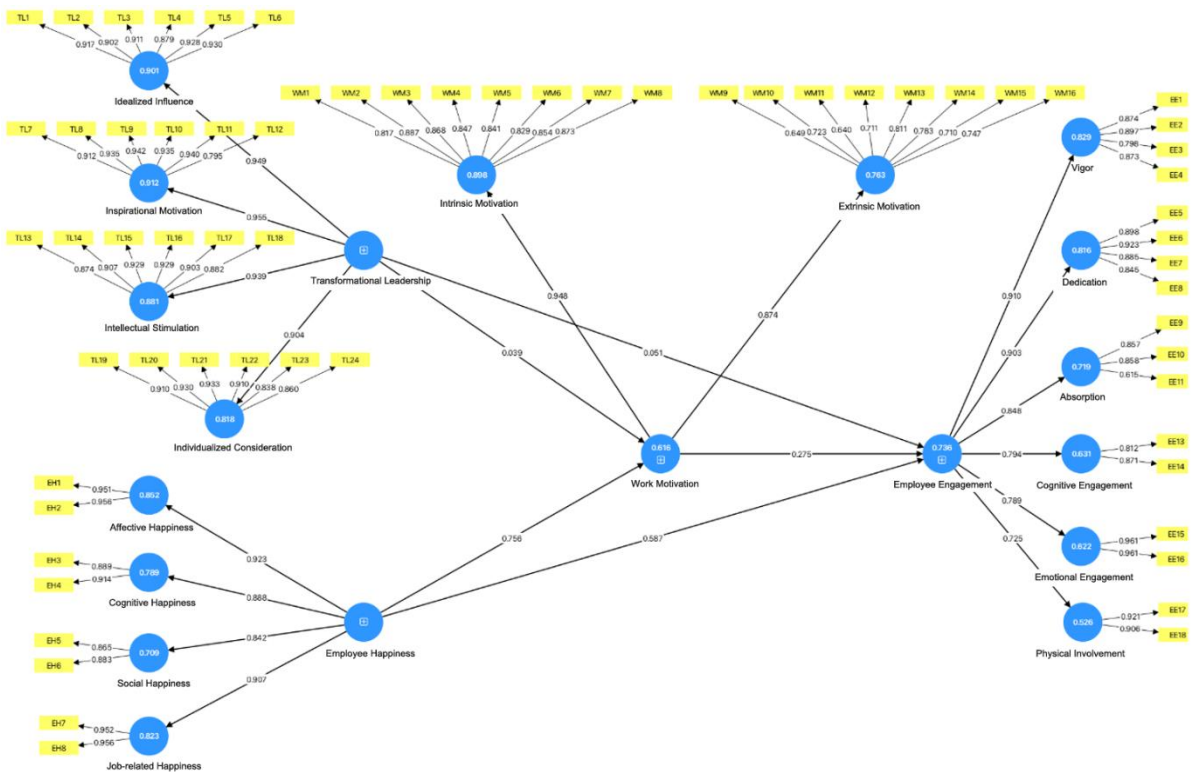


Figure 3. Results of the Loadings Factor Model (after modification).

Figure 3 presents the modified measurement model, showing the factor loadings of the retained indicators on their respective constructs after the removal of indicators that did not meet the recommended loading threshold. The figure demonstrates the final measurement model used to assess convergent validity before proceeding with the structural model evaluation.

4.4. Hypothesis Testing

The hypothesis-testing outputs (Table 9) show mixed support for the set-up connections. The direct effect of TL on EE (H1) was not supported ($\beta = 0.051$, $p > 0.05$). Indeed, it failed to influence WM (H2; $\beta = 0.039$, $p > 0.05$). In this work, employee happiness has a strong, significant, positive effect on EE (H3; $\beta = 0.587$, $p < 0.001$) and work motivation (H4; $\beta = 0.756$, $p < 0.001$). Similarly, work motivation has a significant, positive effect on EE (H5; $\beta = 0.275$, $p < 0.001$). The mediation analysis (Table 10) further indicates that WM does not mediate the connection between TL and EE (H6; $\beta = 0.011$, $p > 0.05$). However, WM mediates the connection between employee happiness and EE (H7; $\beta = 0.208$, $p < 0.001$).

Table 9. The Direct Effect Significance Test.

Hypothesis	Relationship Between Variables	Path Coefficient (β)	Standard Deviation	T-statistic	P-values	Description
H1	TL $\rightarrow$ EE	0.051	0.042	1.216	0.224	Rejected
H2	TL $\rightarrow$ WM	0.039	0.050	0.778	0.436	Rejected
H3	EH $\rightarrow$ EE	0.587	0.060	9.780	0.000	Accepted
H4	EH $\rightarrow$ WM	0.756	0.042	18.014	0.000	Accepted
H5	WM $\rightarrow$ EE	0.275	0.054	5.062	0.000	Accepted

Note: TL = transformational leadership; EE = employee engagement; EH = employee happiness; WM = work motivation.

Table 10. The Indirect Effect Path.

Hypothesis	Indirect Relationship	Indirect Coefficient (β)	Standard Deviation	T-statistic	P-values	Description
H6	TL $\rightarrow$ WM $\rightarrow$ EE	0.011	0.015	0.736	0.462	Rejected
H7	EH $\rightarrow$ WM $\rightarrow$ EE	0.208	0.042	4.911	0.000	Accepted

Note: TL = transformational leadership; EE = employee engagement; EH = employee happiness; WM = work motivation.

4.5. Discussion

Using JD–R, SDT, and Positive Psychology, this study is intended to investigate the linkage between transformational leadership (TL), employee happiness, and employee engagement (EE) through the mediating role of work motivation (WM). To begin, the first key finding is that this leadership style failed to promote EE, contradicting prior studies (Balwant, Mohammed, & Singh, 2020; Mishra, Dashora, & Dubey, 2023). However, from a JD–R perspective, TL can be viewed as a job resource intended to enhance motivation and buffer against high job demands (Bakker & Demerouti, 2014; Tummers & Bakker, 2021). However, in a state-owned construction enterprise characterised by heavy workloads and intense project deadlines, job demands can exceed the motivational capacity of leadership support (Idris & Hermawan, 2025). In this case, when employees experience persistent strain and exhaustion, the positive influence of leadership behaviours becomes less impactful (Katou, Koupkas, & Triantafyllidou, 2022).

In addition, this study also found that TL cannot drive work motivation. This study finds that transformational leadership has no significant association with work motivation, which is driven more by internal psychological conditions and perceived work meaningfulness. Combined with the findings of Bronkhorst, Steijn, and Vermeeren (2015) and Chua and Ayoko (2021), this study's results support the core claim of the JD–R model. SDT (Deci & Ryan,

2000) suggests that TL improves work motivation only to the extent that it satisfies basic psychological needs of employees, namely autonomy and relatedness.

In contrast, EE confirms some prior works (Atan, Ozgit, & Silman, 2021; Choudhury, Dutta, & Dutta, 2021; Monica & Ananthan, 2023); employee happiness appears as the more prevalent predictor of both motivation from work and EE. These effects are quite strong and indicate that those employees who have favourable experiences such as positive affect, meaningful work, and supportive social relationships devote cognitive, emotional & behavioural energy to their roles. This result also enhances previous studies (Bokhan et al., 2021) focused on well-being activators, which consider well-being as an active psychological resource rather than a passive emotional state. Relatedly, an investigation reported that employees who believe in happiness will frame stressful work situations (e.g., heavy workloads or tight deadlines) as challenges instead of encumbering them, which will support their vigor and orientation (in the sense of perseverance; Inegbedion, Inegbedion, Peter, and Harry (2020)). This positive perception would play an important role in maintaining work motivation within the vicinity of this research.

The next finding indicates that work motivation has a direct influence on EE, and this result confirms some antecedent studies (Layek & Koodamara, 2026; Tamam & Sopiah, 2022). One underlying reason for this relationship is that motivation represents the internal drive that directs and sustains employees' work behaviour. In addition to having a direct effect, work motivation can be a significant mediator for employee happiness and engagement that further clarifies the underlying path mechanism. Employee happiness appears to energise and sustain motivation, which translates into higher levels of engagement (Permadi, Nurmalina, & Hubeis, 2022). This pathway supports SDT (Deci & Ryan, 2000), which highlights that well-being enhances engagement by satisfying basic psychological needs that foster autonomous motivation.

However, it needs to be noted that work motivation failed to mediate TL and work engagement. This result suggests that TL does not necessarily translate into higher engagement through motivational mechanisms (Chen & Cuervo, 2022). The basic explanation to support this is that employees can perceive leadership behaviours as formal or symbolic rather than genuinely empowering. Concerning this study, leadership practices can be constrained by regulations and limited autonomy, reducing their impact on employees' internal motivation.

5. CONCLUSION

This study examined the connections between TL, employee happiness, work motivation, and EE within the context of Indonesian state-owned construction enterprises. Findings: The results show that employee happiness is the strongest predictor of EE, directly and indirectly through work motivation, according to PLS-SEM. Conversely, TL does not exert a significant direct effect on ensuring an EE no work motivation. The results also highlight a selective mediating role for work motivation in the route from employee happiness to EE, while the path from TL to EE should be considered as direct due to the lack of mediation.

5.1. Implications

The paper highlights both theoretical and practical implications. The findings present a contradiction (in theoretical perspectives) of the assumption that TL can promote engagement. TL has no impact on work motivation and engagement, suggesting that it is contextual; favourable conditions are present only in the case of state-owned construction enterprises. The findings support the relevance of the JD-R model by demonstrating that personal resources (e.g., employee happiness) could be at play in sustaining motivation and engagement, even more so than leadership resources. Additionally, the insignificant mediating effect of work motivation between TL and EE indicates that other psychological mechanisms (e.g., trust, organisational support, or empowerment) are more capable of explaining this relationship. However, in practical terms, organisations cannot merely depend on leadership development programs that focus on engagement. It becomes essential to pay attention to employee happiness

through supportive work environments and positive social relationships. Therefore, minimising excessive job demands and bureaucracy can also strengthen the TL → motivation → EE relationship.

6. LIMITATIONS AND FUTURE RESEARCH

This study highlights limitations that can also be seen as guiding points for future work. Then, the cross-sectional model can restrict the ability to discover causal inferences and screenshot time-interval component with respect to leadership perceptions and employee happiness, motivation, and engagement. More experimental designs will likely enhance our understanding of this temporal relationship in the future. Second, CMB can still pose a risk of bias even after procedural and statistical controls, as it uses self-assessment data. Future research may enhance methodological rigor through (e.g., supervisor evaluations) and multi-source data. Third, this study is confined to state-owned construction enterprises in Indonesia. It would also be interesting to test the generalizability and boundary conditions of the relationships in a comparative study across sectors or countries.

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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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