

A Work Motivation Mediation Model On Relationship Between Compensation, Competence, Transformational Leadership, And Lecturer Performance

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ABSTRACT

This study aims to examine the role of work motivation as a mediator in the effects of compensation, competence, and transformational leadership on lecturer performance. A quantitative approach grounded in positivism was employed, using an ex post facto research design. Data were collected through Likert-scale questionnaires (1–5) administered to 289 lecturers at Muhammadiyah University of Makassar, who were randomly selected from a population of 754 lecturers using the Slovin formula. The research instruments were validated through expert judgment and pilot testing and demonstrated high reliability (Cronbach's α ranging from 0.842 to 0.937). Data analysis was conducted using Structural Equation Modeling (SEM) with AMOS, and the proposed model met the overall goodness-of-fit criteria. The results indicate that compensation has a significant positive effect on work motivation but does not have a significant direct effect on lecturer performance; however, compensation exerts a significant indirect effect on performance through work motivation. Competence significantly influences both work motivation and lecturer performance, and demonstrates a significant indirect effect via work motivation. Transformational leadership has a significant effect on work motivation, shows no significant direct effect on performance, yet has a significant indirect effect through work motivation. These findings confirm that work motivation functions as a central mechanism or primary mediator that converts various organizational inputs into performance outcomes. This study emphasizes that lecturer performance is more appropriately understood as an outcome formed through prior psychological processes. Consequently, compensation and transformational leadership are more effective when strategically directed toward strengthening work motivation, while competence development emerges as the most fundamental strategy, as it operates simultaneously through both ability-based and motivational pathways.

Keywords: Work motivation; Compensation; Competence; Transformational leadership; Lecturer performance; Structural Equation Modeling (SEM).

1. INTRODUCTION

Lecturer performance has become a critical issue, as the quality of higher education across teaching, research, publications, and community engagement largely depends on individual lecturers' work outcomes, while academic competition and performance demands continue to intensify (Kenny & Fluck, 2022; Amutuhair, 2022; Mushabe et al., 2022). Studies in higher education contexts indicate that lecturers face multi-role responsibilities, including teaching, research and publication, professional services, and community engagement. Consequently, higher education institutions are required to manage organizational factors that can sustain work motivation and productivity over time (Sinniah et al., 2022; Asfahani, 2022; Reymert & Thune, 2023). Within this context, compensation, competence, and transformational leadership are frequently identified as key determinants capable of strengthening work motivation and, ultimately, enhancing lecturer performance.

Recent literature highlights that compensation, encompassing rewards as well as financial and non-financial compensation, has the potential to influence work behavior through motivational mechanisms (Manzoor et al., 2021; Figueiredo et al., 2025). Furthermore, systematic reviews on reward systems suggest that well-designed reward practices tend to enhance motivation, job satisfaction, engagement, and performance across diverse organizational settings (Chen et al., 2023). In higher education settings, empirical findings demonstrate that extrinsic motivational components, such as financial rewards and performance evaluation processes, are associated with job satisfaction, whereas other

factors such as ethical codes, autonomy, and self-efficacy appear to be more strongly linked to performance outcomes (Dasanayaka et al., 2021; Hassan et al., 2024). These findings suggest that the relationship between compensation and lecturer performance is not always linear and should be examined through psychological pathways, particularly work motivation as an explanatory mechanism.

Beyond compensation, lecturer competence including pedagogical, professional, social, personal, and digital era competencies is increasingly regarded as a fundamental prerequisite for performance (Moreira et al., 2023; Dervenis et al., 2022; Dang et al., 2024). Additional evidence in the competence domain indicates that specific competencies, such as lecturers' digital competence, are associated with educational outcomes and learning effectiveness (De Obesso et al., 2023; Canal et al., 2024). However, several studies emphasize that competence does not solely exert a direct effect on performance, but may also enhance performance through psychological mechanisms, particularly motivation (Pacheco & Coello-Montecel, 2023; Chiu et al., 2024; Zhou et al., 2025). Therefore, further research is required to clarify the magnitude and pathways of competence contributions to lecturer performance, both direct effects and indirect effects mediated by work motivation, within the context of higher education.

From a leadership perspective, transformational leadership is frequently associated with performance enhancement; however, the literature also reveals inconsistent findings. Meta-analytic and mediation-path studies in the leadership literature emphasize that the effects of transformational leadership on performance often operate through intervening mechanisms, rather than solely through direct effects (Fareed et al., 2023; Ng, 2017; Zhao et al., 2021). In academic contexts, some studies have reported that transformational leadership directly influences lecturers' research performance and exerts indirect effects through specific mediators (Zhang et al., 2025). Conversely, other higher education studies have found that the direct effect of transformational leadership on performance is not significant, with performance being more substantially explained by mediators such as competence or involvement in strategic planning (Nelly et al., 2024). These divergent findings indicate both theoretical controversy and empirical inconsistency, while simultaneously opening opportunities to examine more fundamental mediators that are closely related to daily work behavior, particularly work motivation.

Based on this gap, the present article positions work motivation as a mediating variable that bridges the effects of compensation, competence, and transformational leadership on lecturer performance. The primary gap lies in the fact that many prior studies have examined these variables in isolation or have employed varied mediators, such as job satisfaction, strategic planning, and proactive behavior. Meanwhile, recent systematic reviews continue to emphasize the need for more fine-grained investigations of psychological mechanisms in educational research (Lazarides et al., 2025). Therefore, the objective of this study is to examine the mediating role of work motivation in the relationships between compensation, competence, and transformational leadership and lecturer performance. The unit of analysis in this study is individual lecturers within the higher education context.

2. METHOD

This study employed a quantitative approach grounded in positivism, which assumes that social phenomena can be observed, measured, and objectively analyzed through numerical data to test hypotheses (Maksimovic & Evtimov, 2023). Methodologically, the study adopted an *ex post facto* design, as it examined cause–effect relationships among variables without researcher intervention or manipulation; causal relationships were established based on relevant theoretical foundations (Kholifah et al., 2025). The tested research model positioned compensation (X1), competence (X2), and transformational leadership (X3) as exogenous variables, work motivation (Y1) as an endogenous variable and mediator, and

lecturer performance (Y2) as the primary endogenous outcome variable. The study was conducted at Muhammadiyah University of Makassar, involving 289 lecturers selected through random sampling using the Slovin formula from a population of 754 lecturers (Zhang et al., 2023).

Data collection involved a literature review to strengthen the theoretical foundation and research model, as well as the administration of questionnaires to measure each construct. The primary research instrument was a self-administered questionnaire developed based on variable operationalization, indicators, and measurement items, employing a five-point Likert scale (1–5). Prior to large-scale administration, the instrument underwent expert validation, involving assessments by two subject-matter experts to ensure content validity and indicator representativeness. The instrument was subsequently subjected to pilot testing involving 43 lecturers from outside the research site.

Validity testing was conducted using item–total correlation coefficients at a significance level of $p < 0.05$. The results indicated that all 77 items achieved significance levels below 0.05 and were therefore deemed valid. Reliability testing employed Cronbach's alpha with a threshold of $\alpha \geq 0.60$. The reliability coefficients demonstrated high internal consistency for all constructs: compensation (0.911), competence (0.842), transformational leadership (0.937), work motivation (0.924), and lecturer performance (0.908). Accordingly, all constructs were considered reliable, and the instrument was deemed suitable for primary data collection.

Data analysis was conducted using Structural Equation Modeling (SEM) to simultaneously examine relationships among constructs, encompassing both the measurement model (relationships between indicators and latent constructs) and the structural model (causal relationships among latent constructs). SEM testing followed several stages: development of the theoretical model, construction of the path diagram, conversion into structural and measurement equations, evaluation of potential model identification issues, and assessment of model assumptions, including sample size adequacy, multivariate normality, and outliers. Model adequacy was evaluated using goodness-of-fit indices, including Chi-square ($p > 0.05$), RMSEA ≤ 0.08 , GFI and AGFI ≥ 0.90 , CMIN/DF within acceptable ranges (generally $\leq 2-3$), and TLI ≥ 0.90 . The final stage involved interpretation of results and, where necessary, model modification based on statistical considerations and theoretical justification. All SEM analyses were conducted using AMOS software (Borzu et al., 2025).

3. RESULT AND DISCUSSION

3.1. Result

Based on the results of data analysis using Structural Equation Modeling (SEM), the following findings were obtained:

1) Evaluation of Goodness-of-Fit Criteria

The evaluation of the goodness-of-fit criteria was conducted based on three main aspects.

First, the assessment of data normality indicated that the overall critical ratio (c.r.) value was 2.58, which falls within the acceptable range of ± 2.58 , indicating that the data were normally distributed.

Second, the data were found to be free from univariate outliers, as the z-scores were within the acceptable threshold of $|z| < 3$, with a minimum value of -4.68 and a maximum value of 1.62 .

Third, the analysis revealed no indication of multivariate outliers, as the Mahalanobis distance-squared value (49.72) exceeded the corresponding chi-square value (30), suggesting the absence of multivariate outliers.

2) Measurement Results of Each Construct (Latent Variables)

The results of the Confirmatory Factor Analysis (CFA) for the exogenous variables, namely compensation, competence, and transformational leadership, demonstrated that the measurement model exhibited an acceptable overall fit. The CFA results are presented in Figure 1.

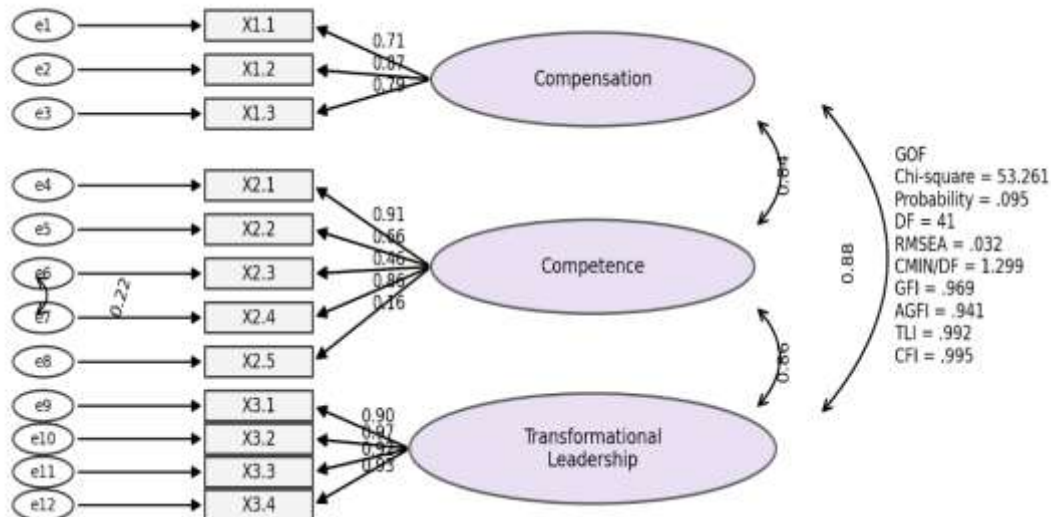


Figure 1. Confirmatory Factor Analysis of Exogenous Variables

The results of the exogenous construct measurement model were evaluated based on goodness-of-fit indices and their corresponding critical values, as presented in Table 1.

Table 1. Evaluation of Goodness-of-Fit Indices for the Exogenous Variable Measurement Model

Goodness of fit index / Cut-off Value	Model Result	Note
Chi-square/ Expected smaller	53.26 < (0,05: 41 = 56.94)	Good
Probability/≥ 0,05	0.095	Good
CMIN/DF/≤ 2,00	1.299	Good
RMSEA/≤ 0,08	0.032	Good
GFI/≥ 0,90	0.969	Good
AGFI/≥ 0,90	0.941	Good
TLI/≥ 0,94	0.992	Good
CFI/≥ 0,94	0.995	Good

The evaluation of the proposed model indicates that the overall construct assessment yielded values exceeding the critical thresholds, suggesting that the model demonstrates a good fit with the observed data. Accordingly, the model is considered acceptable for further model fit and structural analysis.

Subsequently, to identify the indicators suitable for representing the exogenous variables, the assessment was based on the factor loadings or lambda coefficients (λ) and their statistical significance, as presented in Table 2.

Table 2. Evaluation of Goodness-of-Fit Indices for Exogenous Variable Indicators

Variable Indicators	Factor Loading (λ)	Critical Ratio	Probability (p)	Remarks
Compensation				
X1.1	0.709	12.808	< 0.001	Significant

X1.2	0.870	Fixed	< 0.001	Significant
X1.3	0.793	14.999	< 0.001	Significant
Competence				
X2.1	0.906	Fixed	< 0.001	Significant
X2.2	0.656	12.788	< 0.001	Significant
X2.3	0.465	8.169	< 0.001	Significant
X2.4	0.856	19.191	< 0.001	Significant
X2.5	0.759	15.814	< 0.001	Significant
Transformational Leadership				
X3.1	0.905	25.482	< 0.001	Significant
X3.2	0.915	26.213	< 0.001	Significant
X3.3	0.918	Fixed	< 0.001	Significant
X3.4	0.902	25.295	< 0.001	Significant

Based on Table 2, all indicators exhibit significant factor loadings or lambda coefficients (λ); therefore, all indicators were retained for further analysis. Subsequently, the results of the Confirmatory Factor Analysis (CFA) for the endogenous variables, namely work motivation and lecturer performance, in relation to the overall model, are presented in Figure 2.

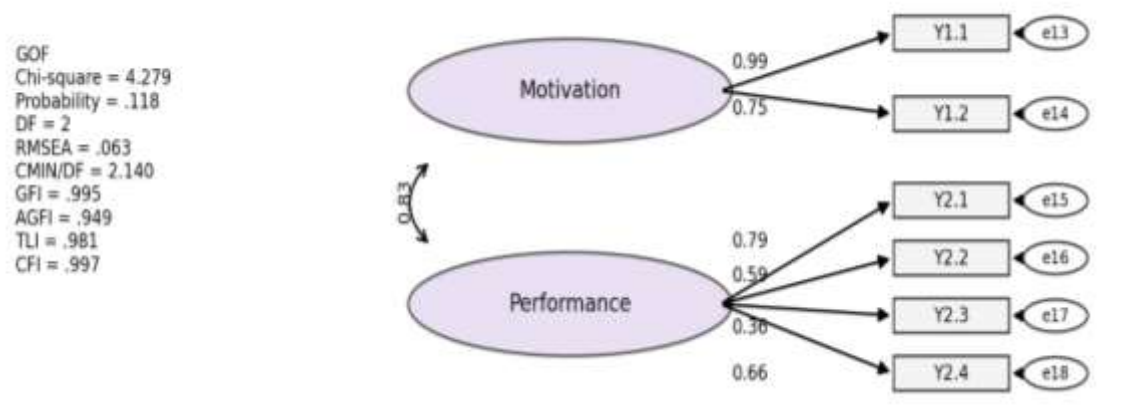


Figure 2. Confirmatory Factor Analysis of Endogenous Variables

The results of the endogenous construct measurement model were evaluated based on goodness-of-fit indices and their corresponding critical values, as presented in Table 3.

Table 3. Evaluation of Goodness-of-Fit Indices for the Endogenous Variable Measurement Model

Goodness of fit index/ Cut-off Value	Model Result	Note
Chi-square/Expected smaller	4.279 < (0,05:2 = 5.992)	Good
Probability/ $\geq 0,05$	0.118	Good
CMIN/DF/ $\leq 2,00$	2.14	Poor
RMSEA/ $\leq 0,08$	0.063	Good
GFI/ $\geq 0,90$	0.995	Good
AGFI/ $\geq 0,90$	0.949	Good
TLI/ $\geq 0,94$	0.981	Good
CFI/ $\geq 0,94$	0.997	Good

The evaluation of the proposed model indicates that, out of the eight fixed criteria, only one criterion was not fully met. Overall, the CFA model for the endogenous variables demonstrates a satisfactory level of fit, suggesting that the model is acceptable.

Subsequently, to identify the indicators suitable for all endogenous variables, the assessment was based on the factor loadings or lambda coefficients (λ) and their statistical significance, as presented in Table 4.

Table 4. Evaluation of Goodness-of-Fit Indices for Endogenous Variable Indicators

Variable Indicators	Factor Loading (λ)	Critical Ratio	Probability (p)	Remarks
Work Motivation				
Y1.1	0.993	Fixed	< 0.001	Significant
Y1.2	0.747	14.037	< 0.001	Significant
Lecturer Performance				
Y2.1	0.789	Fixed	< 0.001	Significant
Y2.2	0.586	12.281	< 0.001	Significant
Y2.3	0.356	5.782	< 0.001	Significant
Y2.4	0.662	11.400	< 0.001	Significant

Based on Table 4, all indicators exhibited significant factor loadings or lambda coefficients (λ); therefore, all indicators were retained for subsequent analysis. Subsequently, the final measurement model assessing the relationships between the exogenous and endogenous variables was estimated, as illustrated in Figure 3.

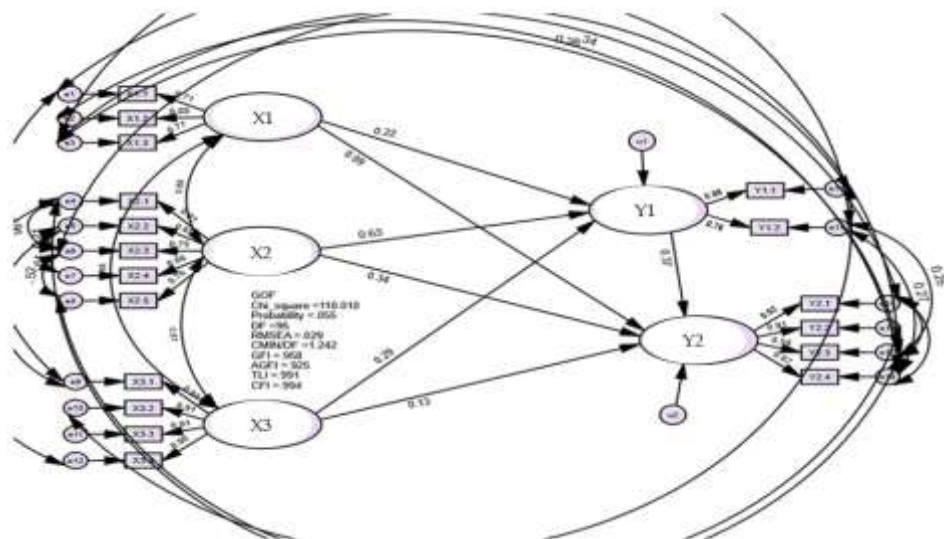


Figure 3. Final Measurement Model of the Relationships Between Exogenous and Endogenous Variables

The results of the model depicted in Figure 3 were evaluated based on goodness-of-fit indices and their corresponding critical values, as presented in Table 5.

Table 5. Evaluation of Goodness-of-Fit Indices for the Overall SEM Model

Goodness-of-Fit Index/ Cut-off Value	Model Result	Remarks
Chi-square/ Lower is better	118.010 (<0.05; df = 95 → 11.752)	Good
Probability (p)/ ≥ 0.05	0.055	Good
CMIN/DF (Normed Chi-square)/ ≤ 2.00	1.242	Good

RMSEA/ ≤ 0.08	0.029	Good
GFI/ ≥ 0.90	0.958	Good
AGFI/ ≥ 0.90	0.925	Good
TLI/ ≥ 0.94	0.991	Good
CFI/ ≥ 0.94	0.988	Good

The evaluation of the model indicates that all eight goodness-of-fit criteria were successfully met, suggesting that the overall model demonstrates an acceptable fit with the observed data.

2) Hypothesis Testing Results

The results of the hypothesis testing are presented in the following table.

Table 6. Results of Hypothesis Testing for Direct Effects

Hypothesis	Variabel Independen → Variabel Dependen	Standardize	CR	p-value	Decision
1	Compensation → Work Motivation	0.224	5.643	< 0,001	Supported
2	Compensation → Lecturer Performance	0.094	1.736	0.083	Not Supported
3	Competence → Work Motivation	0.632	8.002	< 0,001	Supported
4	Competence → Lecturer Performance	0.345	2.913	0.004	Supported
5	Transformational Leadership → Work Motivation	0.288	6.704	< 0,001	Supported
6	Transformational Leadership → Lecturer Performance	0.128	1.907	0.056	Not Supported
7	Work Motivation → Lecturer Performance	0.374	2.296	0.022	Supported

Based on Table 6, the results of the hypothesis testing are as follows: 1) Compensation has a positive and significant effect on work motivation ($\beta = 0.224$; $p < 0.001$). H1 is supported; 2) Compensation has a positive effect on lecturer performance, but it is not significant ($\beta = 0.094$; $p = 0.083$). H2 is not supported; 3) Competence has a positive and significant effect on work motivation ($\beta = 0.632$; $p < 0.001$). H3 is supported; 4) Competence has a positive and significant effect on lecturer performance ($\beta = 0.345$; $p = 0.004$). H4 is supported; 5) Transformational leadership has a positive and significant effect on work motivation ($\beta = 0.288$; $p < 0.001$). H5 is supported; 6) The direct effect of transformational leadership on lecturer performance is positive but not significant ($\beta = 0.128$; $p = 0.056$). H6 is not supported; 7) Work motivation has a positive and significant effect on lecturer performance ($\beta = 0.374$; $p = 0.022$). H7 is supported.

Table 7. Results of Hypothesis Testing for Indirect Effects

Hypothesis	Variabel Independen → Intervening Variabel → Variabel Dependen	Standardize	P - Val	Decision
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8	Compensation→Work Motivation→ Performance	0.084	0.033	Supported
9	Compensation→Work Motivation→ Performance	0.236	0.027	Supported
10	Transformational Leadership→ Performance Work Motivation→	0.108	0.030	Supported

Based on Table 7, the results of the hypothesis testing are as follows: 1) Compensation has a positive and significant indirect effect on lecturer performance through work motivation ($\beta = 0.084$; $p = 0.033$). H8 is supported; 2) Competence shows a positive and significant indirect effect on lecturer performance through work motivation ($\beta = 0.236$; $p = 0.027$). H9 is supported; 3) There is a positive and significant indirect effect of transformational leadership on lecturer performance through work motivation ($\beta = 0.108$; $p = 0.030$). H10 is supported.

3.2. Discussion

The findings of this study can be summarized as follows: First, compensation has a positive and significant effect on work motivation, a positive but non-significant direct effect on lecturer performance, and a positive and significant indirect effect on performance through motivation. The significant effect of compensation on motivation indicates that it is still perceived as a valuable and relevant stimulus for employees, enhancing work energy, effort, and behavioral direction. This pattern aligns with international studies that identify reward satisfaction and compensation systems as drivers of adaptive psychological conditions, such as increased motivation when rewards are perceived as meaningful and supportive of employee needs (Thibault Landry & Whillans, 2018).

However, the positive but non-significant direct effect of compensation on performance suggests that while compensation may increase certain types of motivation (particularly extrinsic), it does not automatically translate into higher performance. The effect depends on whether compensation is interpreted as supportive or controlling, and whether it is directly linked to the behaviors measured as performance (Fulmer et al., 2023). Literature on pay-for-performance systems further emphasizes that the strength of the relationship between compensation and performance is highly contingent on system design, transparency, and fairness (Fulmer et al., 2023).

The significant indirect effect of compensation on performance through motivation is consistent with cross-context findings that reward systems generally operate through motivational and psychological processes (e.g., engagement, satisfaction, or meaningfulness) rather than automatically enhancing performance (Yuliantari Dewi & Ardana, 2022; Figueiredo et al., 2025; Manzoor et al., 2021). Meta-analytic studies also highlight that compensation's effect on performance is strongly influenced by cognitive mechanisms and fairness perceptions, which can vary across jobs and sectors (Chen et al., 2023). In the academic context, the non-significant direct pathway reflects the characteristics of high-autonomy professions: lecturer performance often depends on professional autonomy, academic identity, and internal quality standards. Compensation perceived as administrative or misaligned with academic performance indicators is more likely to trigger motivation rather than directly influence output (Jørgensen & Hanssen, 2018; Kim & Bak, 2020).

Second, competence emerged as the strongest driver of motivation, indicating that individuals with sufficient knowledge and skills tend to be more energetic, confident, and driven to perform. This aligns with Self-Determination Theory (SDT), which positions competence need satisfaction as a key driver of internalization and the quality of motivation (Van Den Broeck et al., 2016). Competence also has a direct effect on performance, reflecting

pure capability: the more competent an individual, the higher their strategic capacity to complete tasks to the expected standard. Meta-analytic evidence supports a positive correlation between competence and performance (Cerasoli et al., 2016; López-Martín et al., 2023). Importantly, competence also exhibits a significant indirect effect through motivation, meaning that enhancing competence not only increases ability but also drives willingness, which contributes substantially to performance improvement (McAnally & Hagger, 2024; Pacheco & Coello-Montecel, 2023). These findings underscore competence development as the most fundamental intervention, as it strengthens both ability and motivation, leading to more stable, high-quality, and sustainable performance.

Third, transformational leadership has a positive and significant effect on work motivation, a positive but non-significant direct effect on performance, and a positive and significant indirect effect on performance through motivation. This supports the argument that transformational leadership enhances motivation by shaping employees' perceptions of meaningful work, fostering a sense of competence, and aligning individual goals with organizational objectives. From an SDT perspective, leader behaviors that provide vision, support, and individualized consideration act as contextual support that promotes internalization of goals (Deci et al., 2017). Meta-analytic evidence also confirms a positive association between transformational leadership and motivation, though the magnitude may vary across cultural contexts (Xue et al., 2022).

The non-significant direct effect on performance indicates that the influence of transformational leadership does not automatically manifest in performance outcomes and may be constrained by factors such as organizational systems, resource limitations, and performance measurement emphasizing outcomes over processes. Empirically, leadership enhances energy and drive, but measurable performance improvements occur only when these motivational gains translate into behaviors aligned with performance indicators (Nelly et al., 2024).

The significant indirect effect via motivation highlights that work motivation is the key mechanism through which transformational leadership influences performance. This finding is consistent with SDT, which posits that internalized motivation enhances work quality, persistence, and strategy (Deci et al., 2017). Hence, the effect of leadership on performance occurs through psychological mechanisms, rather than automatically.

Overall, the study demonstrates that work motivation serves as a central mediator, converting organizational inputs into performance, particularly in high-autonomy roles like lecturers. Competence emerges as the strongest determinant, directly influencing motivation and performance while maintaining an indirect pathway through motivation. Compensation and transformational leadership are best positioned as policy inputs, whose effectiveness depends on their ability to enhance motivation, which in turn translates into improved performance.

4. CONCLUSION

The findings of this study conclude that work motivation serves as a central mechanism or primary mediator that converts various organizational inputs into performance outcomes. Compensation has a significant positive effect on motivation, but its direct effect on lecturer performance is positive yet not significant, whereas its indirect effect through motivation is significant. This underscores that compensation is more effective in enhancing performance when it is first translated into stronger work drive. Competence exhibits the most comprehensive pattern, as it has a significant effect on motivation, a direct effect on performance, and retains a significant indirect effect through motivation. This indicates that enhancing competence not only strengthens lecturers' capacity to meet performance demands but also improves the quality of their willingness to achieve, resulting in more stable performance outcomes. Transformational leadership also has a significant positive effect on motivation, but its direct effect on performance is positive yet not significant,

whereas its indirect effect through motivation is significant. This confirms that transformational leadership primarily influences lecturer performance through the enhancement of work motivation, serving as a psychological pathway that translates leadership influence into measurable performance. Overall, the study emphasizes that lecturer performance should be understood as a distal outcome that is largely shaped through psychological processes. Consequently, compensation and transformational leadership are more effective when directed toward building work motivation, while competence development emerges as the most fundamental strategy, as it simultaneously strengthens both ability and motivational pathways.

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