

Building lecturer excellence: The interplay of teamwork, communication, and competency in an Indonesian Islamic university

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Abstract This study develops and tests an integrative model of lecturer performance, investigating the direct and mediated effects of teamwork and interpersonal communication via competency. Grounded in human capital theory and social exchange theory, the research posits that social-organizational factors enhance performance not only directly but also by building essential individual competencies. Data were collected through a cross-sectional survey of 93 lecturers at La Tansa Mashiro University (UNILAM), Indonesia. Path analysis revealed that competency is the strongest direct predictor of performance ($\beta = 0.457$, $p < 0.001$), with teamwork ($\beta = 0.389$, $p < 0.001$) and interpersonal communication ($\beta = 0.231$, $p < 0.001$) also exerting significant direct effects. Crucially, the analysis revealed that competency fully mediates the relationship between these social variables (teamwork and communication) and performance. This finding indicates that collaborative and communicative environments primarily boost performance by enhancing lecturers' professional capabilities. These findings contribute to the global discourse on educational management by validating a competency-mediated performance model within the unique context of an Indonesian Islamic university, aligning with multidisciplinary studies on human capital and organizational communication. The study provides actionable insights for university leaders, who recommend integrated strategies that combine competency-based development with initiatives to foster a collaborative institutional culture.

Keywords: academic performance, competency, human capital, interpersonal communication, social exchange, teamwork

1. Introduction

In an era of intense global competition and rapid technological advancement, higher education institutions (HEIs) are under significant pressure to cultivate excellence among their academic staff. The challenges and performance drivers within modern educational institutions are increasingly complex and multidisciplinary, requiring integrated solutions (Khan et al., 2020). Lecturer performance is paramount, directly influencing student outcomes, institutional reputation, and the fulfillment of the three fundamental pillars of higher education in Indonesia (Tri Dharma)—education, research, and community service (Do et al., 2024). This is especially critical for private universities, which often operate with constrained resources and face heightened challenges in maintaining competitiveness.

While the determinants of lecturer performance have been widely studied, prior research has often examined variables such as competency, communication, or teamwork in isolation. For example, studies have established the foundational importance of leadership and soft skills (Ghasemy et al., 2015; Ahmad et al., 2010) but have seldom integrated them into a coherent structural model that explains their interplay. Furthermore, a significant gap exists in the understanding of the mechanism through which social-organizational factors such as teamwork and communication translate into improved performance. This study proposes that competency acts as a critical mediating mechanism, a relationship that is underexplored in the literature but is aligned with multidisciplinary research emphasizing the interconnectedness of human and organizational factors (Mészáros & Csiszár-Kocsir, 2024).

The Indonesian context, particularly within private universities embodying distinct cultural and religious values such as La Tansa Mashiro University (UNILAM), remains underresearched. Such institutions often grapple with challenges such as fragmented communication and underdeveloped research collaboration, necessitating context-specific models of educational management (Ghasemy et al., 2015). Understanding these dynamics through a multidisciplinary lens is essential, as the integration of cultural values with performance management represents a rich area for scholarly inquiry (Sánchez-Carracedo et al., 2021).

This research contributes to addressing these gaps by proposing and testing an integrative model that synthesizes human capital theory (Becker, 1964) and social exchange theory (Blau, 1964). The objectives of this research are to examine the direct effects of teamwork, interpersonal communication and competency on lecturer performance and critically analyze the mediating role of competency in the relationship between these social-organizational factors and performance. By doing so, this research contributes a nuanced, multidisciplinary understanding of performance drivers in higher education, offering theoretically grounded and practically relevant insights for university leadership.

2. Theoretical Framing and Literature Review

2.1. Theoretical Foundation

This research relies on two complementary theories to analyze lecturer performance, reflecting the multidisciplinary nature of modern organizational studies.

Human capital theory (HCT) (Becker, 1964) suggests that individuals and organizations invest in resources such as education and training to gain competencies (knowledge, skills, and abilities) that make them more productive and economically valuable. This perspective is reinforced by multidisciplinary research highlighting that human capital drives organizational success and innovation across various sectors (Oláh et al., 2020). From this perspective, lecturer competency is a form of human capital that is central to the core activities of teaching and research. The HCT predicts that higher levels of this human capital will lead to superior performance outcomes, making it the central pillar of our model.

Social exchange theory (SET) (Blau, 1964) provides a framework for understanding social-organizational drivers. SET suggests that social behavior is the result of an exchange process in which individuals seek to maximize benefits and minimize costs. In an organizational context, a supportive environment characterized by effective teamwork and open communication creates norms of reciprocity and trust. Research confirms that the quality of interpersonal relationships and communication channels is a critical success factor in multidisciplinary team performance, further validating this approach (Khan et al., 2020). Lecturers who receive social and professional support from their colleagues and institution are motivated to reciprocate through increased engagement, knowledge sharing, and, ultimately, increased performance. SETs explain why teamwork and communication are not just operational necessities but fundamental drivers of professional behavior.

These theories converge in our competency-mediated performance model. The HCT emphasizes the individual asset (competency), whereas the SET explains the social processes (teamwork, communication) that help build and activate this asset. We argue that social exchanges within the university environment are a primary mechanism for developing human capital, which then directly determines performance.

2.2. Construct Definitions and Literature Synthesis

Lecturer performance (Y) is a multidimensional construct encompassing the effectiveness of an academic in fulfilling Tri Dharma. It is measured through teaching quality, research productivity, community service engagement, and organizational participation (Robby et al., 2021). It represents the ultimate outcome variable in our model.

Competency (X3) is the integrated mix of an individual's knowledge, skills, and personal attributes necessary for successful job performance (Yaşar et al., 2013). In an academic setting, this includes pedagogical mastery, research expertise, and professional ethics. Grounded in HCT, we position competency as the core individual-level determinant of performance. Empirical evidence consistently shows a significant and positive correlation between competency and performance across sectors (Cao et al., 2024; Kuruba, 2019).

Teamwork (X1) is the collaborative effort of a group to achieve a common goal, leveraging individual strengths and managing task interdependencies (Hanaysha, 2016). Effective teamwork fosters knowledge exchange, innovation, and mutual accountability. Studies in diverse contexts, including education, confirm its positive impact on performance (Bokaii, 2023; Phulpoto, 2023; Akinade & Onyebuchi, 2024). The development of these soft skills is a critical outcome of modern, interactive educational methodologies (Mészáros & Csiszárík-Kocsir, 2024).

Interpersonal communication (X2) involves the effective transfer of information, ideas, and feelings between individuals (DeVito, 2024). It is vital for clarifying expectations, providing feedback, and building trust—all of which are essential for coordination and professional growth. Robust evidence links effective communication to enhanced performance (Anugrahni, 2023; Wahyuni, 2024).

While the independent effects of these variables are well documented, their integrative effects are less understood. International and multidisciplinary studies suggest the existence of synergistic relationships. For example, research shows that project-based learning, which inherently requires teamwork and communication, effectively builds professional competencies (Mészáros & Csiszárík-Kocsir, 2024). Furthermore, interdisciplinary collaboration—a key outcome of effective teamwork and communication—is essential for generating innovation and high performance in knowledge-intensive sectors (Oláh et al., 2020). Our model synthesizes these insights, proposing that teamwork and communication are not just parallel drivers but also antecedents that build the competency (human capital) that directly drives performance.

Drawing from this theoretical and empirical foundation, we formulate the following hypotheses:

- H1: Teamwork has a significant and positive effect on lecturer performance.
 H2: Interpersonal communication has a significant and positive effect on lecturer performance.
 H3: Competency has a significant and positive effect on lecturer performance.
 H4: Teamwork has a significant positive effect on lecturer competency.
 H5: Interpersonal communication has a significant and positive effect on lecturer competency.

3. Methods

This research employs a quantitative methodological design. We utilized a questionnaire developed from theoretical references from Mishra (2014), DeVito (2024), Yaşar et al. (2013), Hanaysha (2016), and Robby et al. (2021). The instrument features 60 statements measuring four organizational behavior variables consisting of three exogenous variables—teamwork (X1), interpersonal communication (X2), and competency (X3)—which are related to the endogenous variable, performance (Y). These relationships were statistically tested via path analysis with SPSS.

3.1. Research Design

A cross-sectional survey design was employed for this research. We selected this design for its effectiveness in collecting data from a representative sample to test variable relationships at one time point and analyze the proposed structural model. The research design is illustrated in Figure 1.

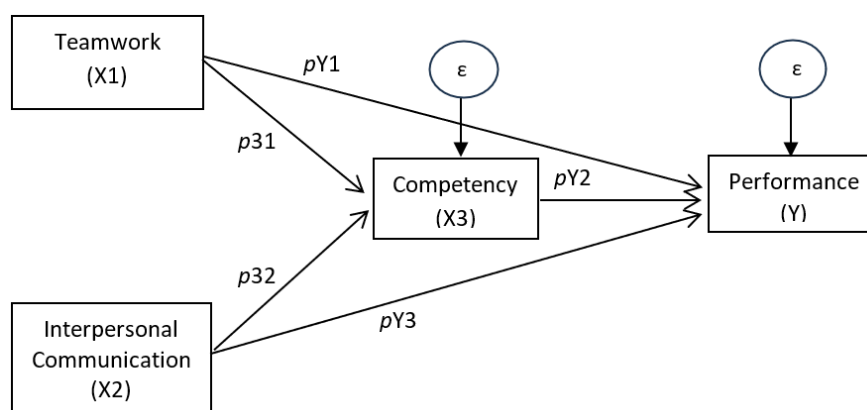


Figure 1 Design of the causal model of X1, X2 and X3 on Y.

3.2. Population and Sample

The target population comprised all permanent home-based lecturers at La Tansa Mashiro University, totaling 121 individuals, as shown in Table 1. The Taro Yamane formula (Oluigbo et al., 2024) with a 5% margin of error was employed. We determined that the minimum required sample size was 93 respondents. Proportional random sampling was applied to ensure faculty/program representation. We received and validated 93 questionnaires for statistical processing (100% response rate from the target sample).

Table 1 Data of all lecturers home-based at UNILAM.

No	Code	Study Program	Strata	Home-based Lecturer		
				NIDN	NIDK	Total
1	62201	Accounting	S1	18	2	20
2	13211	Nutrition	S1	4	1	5
3	55200	Informatics	S1	5	0	5
4	15401	Midwifery	D3	6	0	6
5	61101	Management	S2	5	0	5
6	61201	Management	S1	19	0	19
7	88203	English Language Education	S1	6	0	6
8	84025	Biology Education	S1	4	0	4
9	84202	Mathematics Education	S1	6	0	6
10	57201	Information Systems	S1	5	0	5
11	60206	Islamic Economics	S1	10	0	10
12	86208	Islamic Religious Education	S1	18	0	18
13	86277	Islamic Early Childhood Education	S1	12	0	12
Total						121

Source: PDDikti UNILAM dan STAI La Tansa Mashiro Data Reporting of odd semester 2024-2025 (UNILAM doc.)

3.3. Variable Measurement

All the variables were measured via a 5-point Likert-type scale (ranging from 1=Strongly Disagree to 5=Strongly Agree). Instrument validation proceeded in two stages. First, the questionnaire's content validity was established by a panel of three experts in higher education management. Second, we assessed instrument reliability via a pilot test with 30 lecturers (not included in the final sample). Cronbach's alpha coefficients were calculated for all scales, which demonstrated excellent internal consistency: teamwork ($\alpha=0.912$), interpersonal communication ($\alpha=0.895$), competency ($\alpha=0.934$), and lecturer performance ($\alpha=0.941$). All values exceeded the 0.70 threshold, confirming the reliability of the measures.

- Teamwork (X1): This variable is measured with 15 items adapted from Hanaysha (2016) and Mishra (2014) and covers the dimensions of team communication effectiveness, task delegation, and Tri Dharma collaboration.

- Interpersonal Communication (X2): This variable is measured by 15 items adapted from DeVito (2024) and covers verbal skills, listening skills, and interaction quality.

- Competency (X3): This variable is measured with 15 items adapted from Yaşar et al. (2013) and covers learning management capabilities, subject mastery, professional attitudes, and interaction skills.

- Lecturer Performance (Y): Measured by 15 items developed from internal performance standards and Robby, Aila, & Ochieng (2021) covering teaching effectiveness, research productivity, community service implementation, and managerial participation.

3.4. Data Analysis Technique

The research employed a comprehensive analytical strategy, utilizing both descriptive and inferential statistics. We performed the calculations using MS Excel and SPSS software.

4. Results and Discussion

4.1. Hypothesis Testing and Path Analysis

We tested the causality model via path analysis. The calculation required the correlation coefficients between variables, which we obtained via SPSS software and presented in a matrix (Table 2).

As shown in Table 2, all the intervariable relationships are statistically significant at the 0.01 level (two-tailed test), indicating strong, nonzero correlations among the constructs.

Table 2 Correlations Matrix.

		X1 (Teamwork)	X2 (Interp.Com)	X3 (Competency)	Y (Performance)
X1 (Teamwork)	Pearson Correlation	1	.337	.640	.760
	Sig. (2-tailed)		.001	.000	.000
	N	93	93	93	93
X2 (Interp.Com)	Pearson Correlation	.337	1	.433	.561
	Sig. (2-tailed)	.001		.000	.000
	N	93	93	93	93
X3 (Competency)	Pearson Correlation	.640	.433	1	.806
	Sig. (2-tailed)	.000	.000		.000
	N	93	93	93	93
Y (Performance)	Pearson Correlation	.760	.561	.806	1
	Sig. (2-tailed)	.000	.000	.000	
	N	93	93	93	93

Note: Correlation is significant at the 0.01 level (2-tailed).

Next, we tested structural models to identify the significant path coefficients and create the final model for this research.

4.1.1. Structure 1

Structure 1 (Figure 2) depicts the influence of Teamwork (X1) and Interpersonal Communication (X2) on Competency (X3).

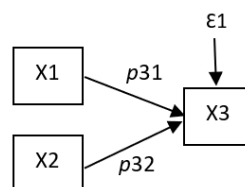


Figure 2 Causal relationship: X₁ and X₂ on X₃.

Figure 2 shows a structural model with a single direct path structure. This structure posits that the endogenous variable, Competency (X3), is directly influenced by two exogenous variables: Teamwork (X1) and Interpersonal Communication (X2). The corresponding structural equation is defined as $X3 = p_{31}X1 + p_{32}X2 + \epsilon_1$.

Tables 3, 4, and 5 display the statistical outcomes from the SPSS analysis of structural Model 1.

Table 3 Model Summary.

	Model
	1
R	.681 ^a
R Square	.463
Adjusted R Square	.451
Std. Error of the Estimate	5.79015
Change Statistics	R Square Change
	.463
	F Change
	38.820
	df1
	2
	df2
	90
	Sig. F Change
	.000

a. Predictors: (Constant), X2 (Interp.Com), X1 (Teamwork).

As shown in Table 3, the coefficient of determination (R^2) is 0.463. This finding indicates that 46.3% of the variance observed in Competency (X3) is jointly explained by the predictors Teamwork (X1) and Interpersonal Communication (X2). The unexplained variance (ϵ_1) is $1 - 0.463 = 0.537$, or approximately 0.54.

Table 4 ANOVA^a.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2602.934	2	1301.467	38.820	.000 ^b
	Residual	3017.324	90	33.526		
	Total	5620.258	92			

a. Dependent Variable: X3 (Competency).

b. Predictors: (Constant), X2 (Interp.Com), X1 (Teamwork).

As shown in Table 4, the ANOVA results for the first structural model yielded an F statistic (F_o) of 38.820 with degrees of freedom $df=(2,90)$. The associated p value of 0.000 is well below the significance level (α) of 0.05. Therefore, we reject the null hypothesis, supporting the conclusion that teamwork (X1) and interpersonal communication (X2) collectively have a statistically significant influence on competence (X3).

Table 5 Coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.444	6.410		1.161	.249
	X1 (Teamwork)	.606	.089	.558	6.797	.000
	X2 (Interp.Com)	.329	.110	.245	2.985	.004

a. Dependent Variable: X3 (Competency).

The hypotheses to be tested are as follows:

$H_0: \beta_{31} \leq 0 \mid H_1: \beta_{31} > 0$

$H_0: \beta_{32} \leq 0 \mid H_1: \beta_{32} > 0$

On the basis of the data in Table 5, we observe the following:

For p_{31} (the path from X1 to X3). The path coefficient (p_{31}) was 0.558. The corresponding t statistic ($t_o=6.797$) significantly exceeded the critical t value ($t\text{-table}=2.629$) at an $\alpha=0.01$ significance level, and the p value (0.000) was less than the 0.05 threshold. Therefore, we reject the null hypothesis (H_0), which confirms that teamwork (X1) has a direct, positive and significant effect on competence (X3).

For p_{32} (the path from X2 to X3). The path coefficient (p_{32}) was 0.245. This effect is statistically significant, as the calculated t statistic ($t_o=2.985$) exceeds the critical t value ($t\text{-table}=2.629$) at the $\alpha=0.01$ level. The p value ($0.004/2=0.002$) is also less than the 0.05 threshold. Consequently, we reject the null hypothesis (H_0), confirming that interpersonal communication (X2) has a direct, positive, and significant effect on competence (X3).

4.1.2. Structure 2

Structure 2 (Figure 3) graphically depicts the relationships among Teamwork (X1), Interpersonal Communication (X2), and Competency (X3) with the outcome variable Performance (Y).

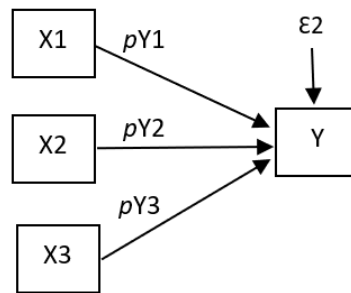


Figure 3 Causal relationship: X_1 , X_2 , X_3 on Y

Figure 3 illustrates Structural Model 2, which specifies the direct influence of the three exogenous predictor variables—teamwork (X_1), interpersonal communication (X_2), and competency (X_3)—on the endogenous outcome variable, performance (Y). We define this relationship with the following structural equation: $Y = pY1X1 + pY2X2 + pY3X3 + \epsilon_2$

Tables 6, 7, and 8 present the statistical outputs from the SPSS analysis of Structural Model 2. The model has exceptional explanatory ability, with a coefficient of determination (R^2) of 0.794. This signifies that 79.4% of the variance in performance (Y) is collectively explained by X_1 , X_2 , and X_3 . The unexplained variance (ϵ_2) is calculated as $1 - 0.794 = 0.206$, or approximately 0.21.

Table 6 Model Summary.

		Model
		1
R		.891 ^a
R Square		.794
Adjusted R Square		.787
Std. Error of the Estimate		3.58871
Change Statistics	R Square Change	.794
	F Change	114.142
	df1	3
	df2	89
	Sig. F Change	.000

a. Predictors: (Constant), X_3 (Competency), X_2 (Interp.Com), X_1 (Teamwork).

Table 7 ANOVA^a.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4410.044	3	1470.015	114.142	.000 ^b
	Residual	1146.214	89	12.879		
	Total	5556.258	92			

a. Dependent Variable: Y (Performance).

b. Predictors: (Constant), X_3 (Competency), X_2 (Interp.Com), X_1 (Teamwork).

As detailed in Table 7, the analysis of variance (ANOVA) for the second structural model yielded a highly significant F statistic ($F_0 = 114.142$) with degrees of freedom $df = (3, 89)$. Given that the associated p value (0.000) is less than the 0.05 significance level (α), we strongly reject the null hypothesis. This confirms that, collectively, teamwork (X_1), interpersonal communication (X_2), and competency (X_3) have a statistically significant combined influence on performance (Y).

Table 8 Coefficients^a.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	-6.041	4.003		-1.509	.135
	X_1 (Teamwork)	.420	.068	.389	6.178	.000
	X_2 (Interp.Com)	.309	.072	.231	4.314	.000
	X_3 (Competency)	.455	.065	.457	6.960	.000

a. Dependent Variable: Y (Performance).

The hypotheses to be tested are as follows:

- 1) $H_0: \beta_{Y1} \leq 0$ | $H_1: \beta_{Y1} > 0$
- 2) $H_0: \beta_{Y2} \leq 0$ | $H_1: \beta_{Y2} > 0$
- 3) $H_0: \beta_{Y3} \leq 0$ | $H_1: \beta_{Y3} > 0$

On the basis of the coefficients table (Table 8), we obtain the following:

For $pY1$ (the path from $X1$ to Y), the direct path from Teamwork ($X1$) to Performance (Y) yielded a path coefficient ($pY1$) of 0.389. This coefficient is statistically significant, as its calculated t statistic (6.178) exceeds the critical t value (2.629) at the $\alpha=0.01$ level. Furthermore, the p value (0.000) is less than the 0.05 threshold. Consequently, we reject the null hypothesis (H_0), confirming the direct, positive, and significant influence of Teamwork ($X1$) on Performance (Y).

For $pY2$ (the path from $X2$ to Y): Analysis revealed a significant positive effect of Interpersonal Communication ($X2$) on Performance (Y), with a path coefficient ($pY2$) of 0.231. The test statistic ($t=4.314$, $p<0.001$) strongly supports this finding, as the calculated t value surpassed the critical value (2.629). We therefore reject the null hypothesis, confirming a direct, positive influence of $X2$ on Y .

For $pY3$ (the path from $X3$ to Y), the path from competence ($X3$) to performance (Y) demonstrated a strong, positive, and statistically significant effect, with a path coefficient ($pY3$) of 0.457. The calculated t statistic (6.960) substantially exceeded the critical t value (2.629) at the $\alpha=0.01$ level. Given that the p value (0.000) is less than 0.05, we reject the null hypothesis (H_0), confirming a direct, positive influence of $X3$ on Y .

Table 9 provides a concise summary of the results from the hypothesis testing.

Table 9 Summary of Hypothesis Testing Results with SPSS.

Direct effect between variables	Path Coefficient (p_{ij})	t_o	p value	Remark
$X1$ on Y	$pY1 = 0.389$	6.178	0.000	Sig.
$X2$ on Y	$pY2 = 0.231$	4.314	0.000	Sig.
$X3$ on Y	$pY3 = 0.457$	6.960	0.000	Sig.
$X1$ on $X3$	$p31 = 0.558$	6.797	0.000	Sig.
$X2$ on $X3$	$p32 = 0.245$	2.985	0.002	Sig.

We integrated the combined results of the path coefficient estimations for Structure 1 and Structure 2 into Figure 4 to represent the complete empirical causal model involving $X1$, $X2$, $X3$, and Y .

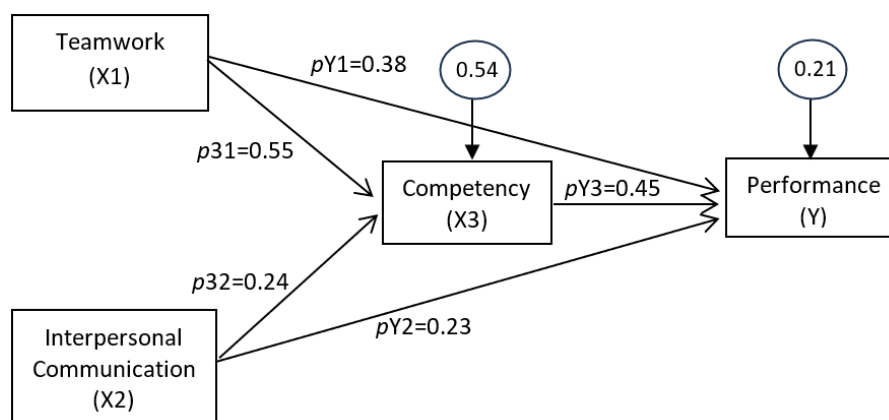


Figure 4 Empirical causal model of $X1$, $X2$ and $X3$ on Y .

4.2. Theoretical Interpretation and Discussion

The results robustly support our competency-mediated performance model, offering deep insights into the dynamics of lecturer excellence that resonate with broader multidisciplinary findings.

4.2.1. The Primacy of Competency: A Human Capital Perspective

The finding that competency ($\beta = 0.457$) is the strongest direct predictor of performance is a powerful affirmation of Becker's (1964) Human Capital Theory. This finding demonstrates that an individual's competencies are the most direct determinants of effective performance in the academic role. This aligns with the findings of global studies; for example, research in Malaysian higher education has revealed that academic staff competencies are crucial for institutional effectiveness (Kularajasingam et al., 2022). The strength of this relationship at UNILAM may be particularly pronounced due to the Islamic cultural context, where individuals internalize values of discipline, punctuality, and work as worship (*ikhlas*) as core components of professional competency. This finding underscores a fundamental multidisciplinary principle: that human capital development is the bedrock of organizational performance, whether in education, industry, or sustainable development initiatives (Oláh et al., 2020).

The results specifically highlight that within La Tansa Mashiro University, competency functions as a strategic capability that directly translates into higher performance outcomes. This finding reinforces the argument that universities must adopt competency-based human resource management systems that include structured training, mentorship, and continuous professional development to sustain lecturer excellence. Studies emphasize the importance of institutional support for a

favorable communication climate in fostering engagement and competency development (Yaacob & Yusof, 2023). Additionally, integrating human resource management practices with academic leadership will improve institutional performance (Ali & Ismail, 2024).

4.2.2. *Social Fabric: Teamwork and Communication through an Exchange Lens*

We can interpret the significant direct effects of teamwork and communication on performance through social exchange theory (Blau, 1964). A collaborative environment creates a cycle of reciprocity. When lecturers receive support, share knowledge, and experience effective communication, faculty members feel a sense of reciprocal obligation among faculty members. This mechanism leads directly to greater personal investment and commitment toward achieving the university's goals. This outcome corroborates international research, including that of Ahmad et al. (2010), who highlighted the role of soft skills in academic settings. It also aligns with research emphasizing that the quality of interpersonal relationships is a critical success factor in diverse organizational contexts (Khan et al., 2020).

However, the relative strength of these effects is unknown. Teamwork ($\beta = 0.389$) had a more substantial direct effect than interpersonal communication did ($\beta = 0.231$). This may reflect the collectivist nature of Indonesian society, further reinforced by Islamic principles emphasizing community (ummah) and consultation (shura). At UNILAM, teamwork is likely not just a managerial strategy but also a sociocultural norm, making it a more powerful direct driver of collective performance. Interpersonal communication, while vital, might be more nuanced in its influence, perhaps affected by hierarchical structures and cultural norms of indirectness that can moderate its direct impact.

In higher education, teamwork enables lecturers to share expertise, coauthor research, and integrate multidisciplinary perspectives, whereas effective communication strengthens collegiality, trust, and mutual accountability (Sembiring & Purba, 2019). In the UNILAM context, the findings highlight the importance of cultivating a collaborative climate to overcome barriers such as disciplinary silos and weak research collaboration. By reinforcing teamwork and communication, universities can indirectly increase lecturer competency, which subsequently leads to higher performance.

4.2.3. *The mediating mechanism: how social exchange builds human capital*

The primary scholarly contribution of this investigation is the empirical evidence supporting the mediating mechanism of competency, which clarifies the indirect relationships among the constructs under study. The strong paths from teamwork ($\beta = 0.558$) and communication ($\beta = 0.245$) to competency indicate that the primary way these social factors enhance performance is by first building individual capability. This integrates HCT and SET into a coherent narrative: social exchanges are a primary investment mechanism for building human capital.

Teamwork builds competency through collaborative research, peer mentoring, and coteaching, allowing for the cross-pollination of ideas and skills. This aligns with multidisciplinary research on project-based education, which highlights that collaborative settings are instrumental in the dedicated cultivation of critical soft skills and professional competencies (Mészáros & Csiszárík-Kocsir, 2024). Communication builds competency by facilitating feedback, clarifying performance expectations, and enabling the transfer of tacit knowledge. This finding critically advances beyond correlational studies (Moura & Varajão, 2025) by delineating the causal pathway. This suggests that initiatives to improve performance by mandating collaboration alone may be less effective than those that explicitly design collaborative activities to enhance specific competencies. This insight is crucial for developing effective educational policies and management strategies grounded in a multidisciplinary understanding of human development (Sánchez-Carracedo et al., 2021).

4.2.4. *Critical Comparison with International Discourse*

While our results on the importance of competency are consistent with global findings (Cao et al., 2024), the cultural and institutional context at UNILAM offers a critical point of divergence. In individualistic Western contexts, organizations often develop competency through formal, standardized training programs. In contrast, our model suggests that in a collectivist, value-driven institution such as UNILAM, competency development is deeply embedded in and dependent on the organization's social fabric. This implies that importing "best practices" in faculty development from the West without adapting them to leverage local social and cultural strengths may yield suboptimal results. The UNILAM case demonstrates that for competency development to be effective, it must be integrated with the institution's communal and value-based practices, a principle supported by multidisciplinary approaches to integrating sustainability and ethics into educational frameworks (Sánchez-Carracedo et al., 2021).

5. Conclusions

In conclusion, we can model lecturer performance in private universities as an outcome of individual capabilities reinforced by workplace environmental factors. Our findings show that lecturer competency is the primary driver of performance, whereas teamwork and interpersonal communication serve as critical catalysts that not only directly influence performance but also, more crucially, strongly impact the development and enhancement of competency itself. The validated

model in this study affirms that, to achieve superior performance, universities cannot focus solely on individual development; they must simultaneously build collaborative, communicative work ecosystems. This research contributes to the human resource management literature in the education sector by providing empirical evidence for an integrative model linking socio-organizational variables (teamwork, communication) with individual capabilities (competency) and work outcomes (performance). Specifically, the findings highlight the partial mediating role of competency, offering deeper insight into the mechanism by which workplace interactions translate into performance improvement. For university leaders, these findings provide strategic guidance. First, they should design lecturer development programs holistically, encompassing not only technical training (e.g., software proficiency) but also soft skills training focused on teamwork and interpersonal communication. Second, institutions must proactively create structures and policies that foster collaboration, such as incentive schemes for group research, cross-disciplinary task forces, and effective internal communication platforms. Third, recruitment and performance evaluation systems should incorporate criteria related to collaborative and communicative abilities alongside technical competency.

Acknowledgment

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Ethical considerations

We executed the study in strict accordance with established ethical guidelines for human-subject research. We procured formal institutional ethical approval from La Tansa Mashiro University (UNILAM) before commencing data gathering. Each participating lecturer provided informed consent, confirming their understanding of the research goals, voluntary status, and right to withdrawal. We implemented measures to ensure anonymity and confidentiality, primarily by not collecting personal data and by aggregating responses, limiting data use exclusively to academic reporting.

Conflict of interest

The authors declare that they have no conflicts of interest.

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