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Article

A Performance Model of Lecturers at Private Universities in West Sumatra: Communication Management in Mediating Human Capital, Supervisor Support, Work–Life Balance, and Work Engagement

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Abstract: This study aims to develop and test a lecturer performance model for Private Universities in West Sumatra by analyzing the direct and indirect effects of human capital, supervisor support, work-life balance, and work engagement on lecturer performance through communication management. A causal quantitative study was conducted with 385 lecturers using a 5-point Likert questionnaire, analyzed via PLS-SEM in SmartPLS 3 for measurement, structural, and mediation testing. Human capital and work engagement positively and significantly affect lecturer performance, while supervisor support and work-life balance have no direct effect. Communication management significantly mediates the relationships between supervisor support, work-life balance, work engagement, and lecturer performance. The model shows strong explanatory power (R2 = 0.556) and predictive relevance (Q^2 = 0.309). Lecturer performance in Private Universities is determined not only by resource availability but also by the effectiveness of organizational management and communication. Communication management serves as a strategic mechanism for transforming organizational support and work engagement into effective lecturer performance. Lecturer performance in PUs is determined not only by resource availability but also by the effectiveness of organizational management and communication. Communication management serves as a strategic mechanism for converting organizational support and work engagement into performance.

Keywords: Lecturer Performance, Human Capital, Supervisor Support, Work–Life Balance, Work Engagement, Communication Management, Private Universities

1. INTRODUCTION

The transformation of global higher education has shifted the paradigm of academic human resource management from an administrative approach to a performance-based strategic approach. Universities, especially private universities, are required not only to serve as teaching institutions but also to function as knowledge-based organizations capable of producing high-quality, internationally competitive, and sustainable academic outputs. In higher education research, lecturer performance is recognized as a central determinant of institutional effectiveness because it directly influences the quality of teaching, research productivity, and overall educational outcomes [1], [2].

In Indonesia, private universities face more complex challenges than public universities, including limited funding, accreditation pressures, scientific publication requirements, and the ever-changing dynamics of higher education policy. These conditions require more adaptive and strategic lecturer management, especially to sustainably improve academic performance. However, various studies show that improving faculty performance cannot be achieved solely through structural policies or financial incentives, but rather through a combination of individual, psychological, and organizational factors [3].

One fundamental factor that is consistently associated with individual performance is human capital. Human capital theory asserts that investment in individual knowledge, skills, and competencies will increase organizational productivity and added value [4]. In the context of higher education,

lecturer human capital is reflected in academic qualifications, research experience, pedagogical capacity, and the ability to adapt to innovations in learning technology. Several studies have found that lecturers with high levels of human capital tend to perform better in their three main duties [5], [6].

However, contemporary literature suggests that human capital alone is not sufficient to guarantee superior performance, particularly in complex organizations such as universities, because individual capabilities must be supported by effective organizational systems, high-performance work practices, and strategic HRM to translate into optimal institutional outcomes [5], [7]. This indicates the need to explore organizational mechanisms that can bridge individual potential with performance output.

In addition to human capital, contextual factors such as supervisor support are gaining attention in human resource management studies. Supervisor support refers to the extent to which organizational leaders provide emotional, instrumental, and developmental support to their subordinates [8]. In an academic environment, support from faculty or program leaders is expected to create a conducive working climate for lecturers. However, empirical findings show that the direct influence of supervisor support on lecturer performance is often weak or insignificant, largely because lecturers have a high level of professional autonomy [9].

Another issue that is increasingly relevant in the modern academic context is work-life balance. Increasing demands for publications, administrative burdens, and technology-based learning activities have blurred the boundaries between lecturers' work and personal lives. Although work-life balance has been shown to affect well-being and job satisfaction positively, its relationship with academic performance remains mixed [10], [11]. This suggests that work-life balance may influence performance through indirect mechanisms.

On the other hand, work engagement has been identified as a strong predictor of performance in various sectors, including higher education. Work engagement describes a positive psychological state characterized by vigor, dedication, and absorption in work [12]. Lecturers with high levels of engagement tend to show greater enthusiasm, creativity, and commitment to academic activities. However, lecturers' levels of engagement are greatly influenced by the organizational context and the quality of internal communication.

Although research has examined the direct influence of internal communication on organizational outcomes, few empirical studies have investigated internal communication as a mediating mechanism linking organizational or contextual resources to performance outcomes in higher education settings. In the business sector, Danso et al. [13] demonstrated that internal communication functioned as a full mediating conduit, transmitting the positive effects of market orientation on performance among telecommunications firms in Ghana — a finding that underscores the strategic capacity of internal communication to channel organizational resources into performance outcomes. More recently, in an academic context, Kumar et al. [14] found that internal communication acted as a partial mediator between social media use and faculty job performance among 456 lecturers at public colleges in India, confirming that communication mechanisms are relevant in higher education performance models. In a related vein, Saharudin et al. [15] found that internal communication mediated the relationship between transformational leadership and academic staff's readiness for change in higher education, further affirming the indirect role of communication in staff outcomes. However, these studies collectively leave critical gaps: Danso et al. [13] tested internal communication as a mediator exclusively in the business context, while Kumar et al. [14] and Saharudin et al. [15] addressed only specific antecedents — digital media use and leadership style, respectively — without examining how structural and psychosocial resources such as human capital, supervisor support, work-life balance, and work engagement are simultaneously channeled through communication management to lecturer performance.

Prior studies on lecturer performance have predominantly focused on isolated antecedents: human capital [6], [16], supervisor support [17], work-life balance [18], or work engagement [19]—

each examined in relative isolation. Furthermore, while communication management has been examined as an independent variable or organizational outcome, its role as a mediating mechanism between these multi-dimensional resources and lecturer performance remains largely untested. Crucially, no study to date has simultaneously integrated human capital theory, organizational support theory, and the JD-R model within a unified performance model for private university lecturers, nor empirically tested communication management as the linking mechanism in such a context.

Communication management in higher education organizations encompasses the processes of planning, delivering, and managing information to create shared understanding, coordinate work, and involve lecturers in achieving institutional goals [20]. Effective communication enables lecturers to understand policies, performance expectations, and their roles in the organization. Thus, communication management has the potential to become a strategic mechanism that transforms human capital, leadership support, work-life balance, and engagement into optimal lecturer performance.

This study provides empirical evidence of how communication management mediates the effects of key individual and contextual factors on lecturer performance, a mechanism rarely tested in private higher education settings. Based on this background, this study aims to develop a model of lecturer performance at private universities in West Sumatra by placing communication management as a mediating variable between human capital, supervisor support, work-life balance, and work engagement on lecturer performance. This study is among the first to empirically position communication management as a strategic mediating mechanism bridging individual and contextual resources to lecturer performance in the private higher education sector of a developing country, offering a novel integrated model with theoretical and practical implications.

2. LITERATURE REVIEW

2.1 Human Capital

Human capital theory views individuals as strategic assets of an organization whose economic value and productivity increase through investment in education, training, and work experience [4]. In knowledge-based organizations such as universities, human capital is not only a supporting resource but also the core of the organization's value creation process. Lecturers, as knowledge workers, play a central role in the production, transfer, and dissemination of knowledge, so the quality of lecturer human capital greatly determines the performance of higher education institutions [5].

Faculty human capital encompasses cognitive dimensions (academic and scientific knowledge), skill dimensions (pedagogical and methodological competencies), and social dimensions (collaboration and academic networking abilities). Empirical evidence suggests that lecturers with stronger human capital, reflected in their qualifications, competencies, and academic knowledge, exhibit better performance outcomes in both teaching and professional contributions [6], [16].

However, contemporary literature also criticizes the view that overemphasizes human capital as the sole determinant of performance. Recent studies suggest that the strategic value of human capital depends heavily on how organizations manage, coordinate, and facilitate individuals' knowledge. In this view, human capital contributes to organizational performance only when supported by effective knowledge sharing and organizational systems that enable communication and collaboration among staff [21]. In higher education, highly competent lecturers do not always perform optimally when the organizational system fails to facilitate information exchange, academic collaboration, and role clarity. In this study, human capital is seen as having two channels of influence. First, it directly influences lecturer performance, as academic competence enables lecturers to fulfill their three main duties effectively. Second, an influence on communication management because lecturers with high human capital generally have better academic communication skills, including in scientific discussions, coordination of academic activities, and the delivery of ideas. Therefore, the following hypotheses are proposed:

H1: Human capital has a positive effect on lecturer performance.

H6: Human capital has a positive effect on communication management

2.2 Supervisor Support

Supervisor support is a concept derived from Organizational Support Theory, which states that individuals' perceptions of organizational support influence their attitudes, motivation, and work behavior [8]. Supervisor support

refers to the extent to which leaders provide attention, feedback, recognition, and instrumental and emotional support to subordinates. In non-academic organizations, supervisor support is consistently associated with improved performance, commitment, and job satisfaction. However, in the context of higher education, this relationship is not always linear. The collegial, autonomous, and expertise-based professional structure of higher education institutions means that lecturers are relatively independent in carrying out their academic duties [9]. As a result, leadership support does not always translate directly into improved individual performance.

Several studies show that the influence of supervisor support on faculty performance is often indirect, working through psychosocial and organizational mechanisms such as employee engagement, internal communication, and work climate [17]. In this case, communication management plays a central role as the main channel for conveying leadership support. Supervisors who provide clear directions, open dialogue, and communicate policies transparently tend to create a work environment that supports lecturer performance. Based on these arguments, this study proposes that supervisor support should be tested not only for its direct influence on lecturer performance, but also for its influence on communication management as a mediating mechanism.

H2: Supervisor support has a positive effect on faculty performance.

H7: Supervisor support has a positive effect on communication management.

2.3 Work-Life Balance

Work-life balance is defined as the degree of balance between the demands of work and an individual's personal life [10]. In the academic profession, the issue of work-life balance is becoming increasingly complex due to the flexible yet intensive nature of lecturers' work, characterized by unscheduled hours and output-based performance demands. Research shows that work-life balance is strongly associated with psychological well-being, job satisfaction, and mental health. However, empirical evidence regarding its direct influence on academic performance remains inconsistent [11]. Several studies have found that lecturers with good work-life balance do not necessarily perform better, especially when work motivation is intrinsic and driven by a professional calling.

Recent literature indicates that the effectiveness of work-life balance policies depends heavily on how they are communicated and implemented. Work flexibility policies that are not clearly communicated can lead to role ambiguity and perceived unfairness, which actually weakens performance. Therefore, communication management is a key element in ensuring that work-life balance functions as a productive work resource.

H3: Work-life balance has a positive effect on faculty performance.

H8: Work-life balance has a positive effect on communication management.

2.4 Work Engagement

Work engagement is a positive psychological state characterized by high energy levels (vigor), emotional involvement (dedication), and deep concentration (absorption) at work [12]. In higher education, work engagement refers to the extent to which lecturers are cognitively and emotionally involved in teaching, research, and community service activities. The Job Demands–Resources (JD-R) model explains that engagement arises when individuals have adequate work resources to cope with job

demands [3]. In an academic environment, these resources include work autonomy, organizational support, and effective internal communication.

Empirical research consistently shows that work engagement has a positive effect on individual performance, including productivity, creativity, and work quality. However, engagement is also dynamic and highly influenced by the organizational context. Lecturers with high levels of engagement will be better able to utilize the organizational communication system to collaborate, share knowledge, and align individual goals with institutional goals.

H4: Work engagement has a positive effect on lecturer performance.

H9: Work engagement has a positive effect on communication management.

2.5 Communication Management

Communication management in organizations encompasses the processes of planning, implementing, and evaluating internal communication aimed at fostering mutual understanding, coordinating work, and engaging organizational members [20]. In higher education, communication not only serves as a means of conveying

information but also as a sense-making mechanism that helps lecturers understand policy changes, performance demands, and the strategic direction of the institution. Modern organizational literature emphasizes that communication acts as a linking mechanism between individual resources and performance output. Leadership support, work-life balance policies, and engagement levels will only impact performance if they are effectively communicated and understood by lecturers. Therefore, communication management is positioned as a mediating variable that explains how these factors translate into lecturer performance.

Based on this conceptual framework, this study examines the mediating role of communication management in the relationship between human capital, supervisor support, work-life balance, work engagement, and faculty performance.

H10: Communication management has a positive effect on faculty performance.

H11: Communication management mediates the relationship between human capital and faculty performance.

H12: Communication management mediates the relationship between supervisor support and faculty performance.

H13: Communication management mediates the relationship between work-life balance and faculty performance.

H14: Communication management mediates the relationship between work engagement and faculty performance.

3. METHODOLOGY

3.1 Research Design and Approach

This study uses a quantitative, causal design to examine the causal relationship between exogenous and endogenous variables in the research model. The causal approach was chosen because this study aims not only to describe the phenomenon but also to explain the direct and indirect mechanisms of influence between human capital, supervisor support, work-life balance, and work engagement on lecturer performance, with communication management as a mediating variable. This approach is relevant to the characteristics of human resource management and higher education organization research, which is oriented towards testing hypothesis-based theoretical models [22].

3.2 Research Population and Sample

The population in this study was all active lecturers teaching at private universities (PTS) in West Sumatra Province. PTS was chosen as the research context because it has distinct organizational

characteristics compared to public universities, particularly in human resource management, incentive systems, and institutional performance pressure. The sample was determined using purposive sampling, with the consideration that respondents must meet certain criteria to be relevant to the research objectives. The sample selection criteria included: 1) Active lecturers at PTS in West Sumatra; 2) At least one year of teaching experience; 3) Involvement in the three pillars of higher education.

Based on these criteria, 385 respondents were selected as the research sample. This number meets the minimum sample size requirements for Partial Least Squares-based Structural Equation Modeling (PLS-SEM), which require a minimum sample size of 10 times the number of indicators in a single construct [22]. The sample size is sufficient to detect mediation effects and satisfies the minimum requirements for PLS-SEM analysis.

3.3 Data Collection Techniques

Research data was collected using a structured questionnaire based on indicators from reputable international literature. Respondents were contacted via institutional email and invited to participate. Follow-up reminders were sent twice over three weeks to ensure an adequate response rate. The questionnaire was distributed directly and/or online to respondents who met the research criteria. All items were measured using a 5-point Likert scale, with a range of values from 1 (strongly disagree) to 5 (strongly agree). The Likert scale was chosen because it can capture respondents' perceptions and attitudes quantitatively and is commonly used in organizational behavior and higher education research.

3.4 Operationalization of Variables

The variables used in this study include: 1) Human Capital (5 items), which reflects the competence, knowledge, and academic abilities of lecturers; 2) Supervisor Support (5 items), which describes leadership support in the form of attention, feedback, and professional assistance; 2) Work-Life Balance (5 items), which measures the balance between academic work demands and personal life; 3) Work Engagement (6 items), which reflects the vigor, dedication, and absorption of lecturers in their work; 4) Communication Management (number of items according to the instrument), which measures the effectiveness of internal communication within the organization; 5) Faculty Performance (7 items), which covers aspects of teaching, research, and community service. All indicators are adapted from instruments that have been tested for validity and reliability in previous studies, with adjustments to the higher education context.

3.5 Data Analysis Techniques

No interventions were applied; this study examined natural variations in organizational and individual factors. Data analysis was performed using Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) with SmartPLS 3. PLS-SEM was chosen because: 1) It is suitable for complex models with many constructs and indicators; 2) It does not require strict assumptions of data normality; 3) It allows simultaneous testing of predictive and mediation models

The analysis was conducted in two main stages: Evaluation of the measurement model to test the validity and reliability of the constructs, and Evaluation of the structural model to test the relationships between variables, path coefficients, hypothesis significance, and model explanatory power (R^2 and Q^2). This study was conducted in accordance with the principles of the Declaration of Helsinki.

Additionally, discriminant validity was further assessed using the Heterotrait–Monotrait Ratio (HTMT), while common method bias was evaluated through Harman's single-factor test and full collinearity assessment to ensure the robustness of the measurement model.

4. RESULTS AND DISCUSSION

4.1 Evaluation of Measurement Models

First, Convergent Validity. A total of 385 lecturers participated in the study, and the collected data were analyzed using PLS-SEM to evaluate the measurement and structural models. Convergent validity was evaluated using the Average Variance Extracted (AVE) value. The analysis results showed that all constructs had an AVE value above the minimum threshold of 0.50, so it can be concluded that each construct was able to explain more than 50% of the variance in its indicators.

Table 1: AVE Values per Construct

Construct	AVE	Description
Human Capital	0,675	Valid
Supervisor Support	0,803	Valid
Work-Life Balance	0,653	Valid
Work Engagement	0,654	Valid
Communication Management	0,691	Valid
Lecturer Performance	0,554	Valid

These findings indicate that the indicators used adequately represent the constructs measured [22].

Second, Discriminant Validity. Discriminant validity was tested using the Fornell–Larcker criteria by comparing the AVE square root to the correlation between constructs. The results of the analysis show that the AVE square root value for each construct is greater than its correlation with other constructs, thus fulfilling discriminant validity. This indicates that each construct in the model has unique characteristics and that there is no conceptual overlap between the research variables.

Fourth, Heterotrait–Monotrait Ratio (HTMT). The Heterotrait–Monotrait Ratio (HTMT) was assessed to provide a more rigorous evaluation of discriminant validity. All HTMT values were below the recommended threshold of 0.90, indicating that each construct was empirically distinct and free from multicollinearity problems. These results

further confirm the adequacy of discriminant validity in the measurement model in accordance with the recommendations of Hair et al. [22].

Fifth, Common Method Bias (CMB). To assess the potential issue of common method bias, Harman's single-factor test and full collinearity assessment were conducted. The results showed that the first factor explained less than 50% of the total variance, indicating that common method bias was not a serious concern in this study. In addition, all inner Variance Inflation Factor (VIF) values were below the threshold of 3.3, further confirming the absence of substantial common method bias.

Third, Construct Reliability. Reliability was assessed using Composite Reliability (CR) and Cronbach's Alpha. The results, presented in Table 2 and Table 3, show that all constructs had CR and Cronbach's Alpha values above the recommended minimum limit of 0,70, indicating adequate internal consistency.

Table 2 presents the Composite Reliability (CR) values for each construct. All constructs achieved CR values above 0.70, confirming that the indicators consistently measure their respective constructs.

Table 2: Composite Reliability Test

No	Item	Composite Reliability	Description
1	Human Capital	0.824	Reliable
2	Lecturer Performance	0.876	Reliable
3	Communication Management	0.918	Reliable
4	Supervisor Support	0.961	Reliable
5	Work Engagement	0.919	Reliable
6	Work-Life Balance	0.918	Reliable

Table 3 shows the Cronbach's Alpha values for each construct. All constructs had Cronbach's Alpha values above the recommended threshold, further supporting the internal reliability of the measurement model.

Table 3: Cronbach's Alpha Test Results

No	Item	Cronbach's Alpha	Description
1	Human Capital	0.785	Reliable
2	Lecturer Performance	0.820	Reliable
3	Communication Management	0.888	Reliable
4	Supervisor Support	0.951	Reliable
5	Work Engagement	0.894	Reliable
6	Work-Life Balance	0.894	Reliable

All constructs have CR ≥ 0.70 and Cronbach's Alpha ≥ 0.785, in accordance with reliability standards.

4.2 Structural Model Evaluation

First, Coefficient of Determination (R^2). The R-Square (R^2) value is used to measure the ability of independent variables to explain dependent variables.

Table 4: R^2 for Each Endogenous Variable

Endogenous Variables	R^2
Lecturer Performance	0,556
Communication Management	0,632

An R^2 value of 0.556 indicates that 55.6% of the variation in lecturer performance can be explained by human capital, supervisor support, work-life balance, work engagement, and communication management, while the remaining 44.4% is influenced by factors outside the model, as shown in Table 4.

Second, Predictive Relevance (Q^2). The Stone–Geisser Q^2 test shows that all endogenous variables have Q^2 values> 0, indicating that the model has good predictive relevance.

Table 5: Predictive Relevance (Q^2) Values for Endogenous Variables

Variable	Q^2	Description
Lecturer Performance	0,309	Good
Communication Management	0,434	Good

4.3 Hypothesis Testing

Statistical significance was assessed at $p < 0,05$ using bootstrapping with 5000 resamples.

Table 6: Result For Inner Weights

No.	Hypothesis	O	M	STDEV	T	P	Decision
H1	Human Capital → Lecturer Performance	0.239	0.244	0.049	4,871	0.000	Accepted
H2	Supervisor Support → Lecturer Performance	0.041	0.038	0.051	0.806	0.421	Rejected
H3	Work-Life Balance → Lecturer Performance	0.067	0.064	0.052	1,291	0.197	Rejected
H4	Work Engagement → Lecturer Performance	0.443	0.443	0.068	6,482	0.000	Accepted
H6	Human capital → Communication Management	0.065	0.066	0.030	2,178	0.030	Accepted
H7	Supervisor Support → Communication Management	0.326	0.325	0.059	5,487	0.000	Accepted
H8	Work-Life Balance → Communication Management	0.209	0.211	0.050	4,216	0.000	Accepted
H9	Work engagement → Communication Management	0.389	0.388	0.049	7,888	0.000	Accepted
H10	Communication Management → Lecturer Performance	0.150	0.149	0.054	2,805	0.005	Accepted
H11	Mediation: Human Capital → Communication Management → Lecturer Performance	0.010	0.010	0.007	1,478	0.140	Rejected
H12	Mediation: Supervisor Support → Communication Management → Lecturer Performance	0.049	0.048	0.020	2,473	0.014	Accepted
H13	Mediation: Work-Life Balance → Communication Management → Lecturer Performance	0.031	0.031	0.014	2,316	0.021	Accepted
H14	Mediation: Work Engagement → Communication Management → Lecturer Performance	0.058	0.058	0.022	2,632	0.009	Accepted

Table 7: R^2 for Simultaneous Effects of Independent Variables on Lecturer Performance

No.	Hypothesis	R Square	Description
H5	Human capital, supervisor support, work-life balance, and work engagement → Lecturer Performance (simultaneous)	$R^2 = 0.582$	Accepted

Path analysis shows that human capital (beta=0.239, p<0.001) and work engagement (beta=0.443, p<0.00) significantly affect Lecturer Performance, whereas supervisor support (beta=0.041, p=0.421) and work-life balance (beta=0.067, p=0.197) are not significant, as shown in Table 6. These findings indicate that intrinsic factors (competence and work engagement) are more dominant in influencing Lecturer Performance than contextual factors directly.

4.4 Mediation Testing

Table 8: Specific Indirect Effects

Item	T Statistics (O/STDEV)	P Value
Human capital → Communication Management → Lecturer Performance	1,478	0.140
Supervisor Support → Communication Management → Lecturer Performance	2,473	0.014
Work Engagement → Communication Management → Lecturer Performance	2,632	0.009
Work-life Balance → Communication Management → Lecturer Performance	2,316	0.021

Analysis of specific indirect effects shows that Communication Management does not mediate the relationship between human capital and lecturer performance. Communication Management significantly mediates the relationship between:

Supervisor support → Lecturer Performance

Work-life balance → Lecturer Performance

Work engagement → Lecturer Performance

Mediation analysis shows that Communication Management mediates the relationship between supervisor support, work-life balance, and work engagement with Lecturer Performance, while the influence of human capital is not mediated.

4.5 Discussion

The overall pattern of findings from this study reveals a theoretically meaningful distinction between resource types in shaping lecturer performance at private universities in West Sumatra.

Intrinsic resources — human capital and work engagement — exert direct and significant effects on lecturer performance, while contextual resources — supervisor support and work-life balance — demonstrate performance-relevant effects exclusively through communication management as a mediating mechanism. This differential pattern, supported by a model with strong explanatory power ($R^2 = 0.556$) and predictive relevance ($Q^2 = 0.309$), suggests that lecturer performance cannot be understood solely through resource availability, but must account for the communication processes through which those resources are activated and internalized by academic staff. Notably, the high R^2 value for communication management itself (0.632) indicates that the organizational and psychosocial resources examined in this study collectively constitute strong determinants of communicative quality within private universities. The following sub-sections interpret each finding in light of relevant theoretical frameworks and existing empirical evidence, including points of convergence and divergence with the broader literature.

Specifically, this study found that human capital and work engagement have a significant direct effect on Lecturer Performance, whereas supervisor support and work-life balance do not. However, these three contextual variables were found to have a significant effect through Communication Management. This pattern of findings confirms that PTS Lecturer Performance is not only determined by the availability of resources, but by how these resources are managed and communicated within the organization.

4.5.1 The Influence of Human Capital on Lecturer Performance

The results confirm that human capital has a positive and significant direct effect on lecturer performance ($\beta = 0.239$, $p < 0.001$), supporting Hypothesis 1. This finding aligns with human capital theory, which positions individual competence, knowledge, and academic skills as primary drivers of organizational productivity [4], and is consistent with international evidence showing that academic resource quality plays a central role in teaching effectiveness and research productivity in higher education institutions [5], [23].

However, a critical observation is warranted regarding the relative magnitude of this effect. The beta coefficient for human capital ($\beta = 0.239$) is considerably smaller than that of work engagement ($\beta = 0.443$), which represents nearly double the predictive weight. This contrast challenges competence-centric models of academic performance management, which tend to privilege formal qualification upgrading as the primary institutional improvement

strategy. The findings suggest that in the resource-constrained context of private universities in West Sumatra, where extrinsic incentive systems are limited and organizational pressures are high, motivational and psychological investment in work constitutes a more powerful performance determinant than formal competence credentials. This is consistent with the broader proposition that the performance returns of human capital are context-dependent, and may be attenuated in environments where structural facilitating conditions are limited [7].

Furthermore, the mediation test reveals that communication management does not significantly mediate the relationship between human capital and lecturer performance (H11: $\beta = 0.010$, $p = 0.140$). This non-mediation is theoretically significant and distinguishes human capital from the other resources examined in this study. It suggests that competence-based resources operate as self-activating performance drivers, lecturers with strong academic qualifications and skills are capable of converting their knowledge into performance outputs through direct application, without requiring organizational communication as an intermediary conduit. This finding is conceptually consistent with the autonomous and expertise-driven nature of academic work [9]: professional competence functions as an independent performance resource whose activation does not depend on the quality of institutional communication systems. This differential mediation pattern, where human capital bypasses communication management while contextual resources depend upon it, constitutes a key theoretical contribution of this study and is elaborated in the discussion of communication management's strategic role.

4.5.2 Supervisor Support and Lecturer Performance: Why Not Directly Significant

The finding that supervisor support does not have a significant direct effect on lecturer performance ($\beta = 0.041$, $p = 0.421$), rejecting Hypothesis 2, warrants careful theoretical interpretation rather than dismissal as a null result. While this finding may appear inconsistent with the broader organizational behavior literature, where supervisor support is consistently associated with improved performance, commitment, and job satisfaction [8], it is substantially coherent with studies that specifically examine the academic workplace and its distinct professional structure [9], [17].

In higher education, lecturers operate within a collegial, expertise-driven structure that grants considerable autonomy in the execution of academic duties. Unlike employees in hierarchical organizational settings, lecturers are primarily accountable to disciplinary standards, peer norms, and institutional performance metrics, including publication outputs, teaching evaluations, and student outcomes, rather than to direct supervisory directives. Consequently, whether or not a supervisor provides instrumental or emotional support does not automatically translate into measurable changes in a lecturer's day-to-day performance output. This dynamic is particularly pronounced in the PTS environment in West Sumatra, where supervisory roles (e.g., program chairs, faculty deans) are frequently held by colleagues concurrently carrying substantial academic responsibilities of their own, which may structurally limit both the formal authority and the available time for meaningful supervisory engagement.

Critically, however, the results demonstrate that supervisor support exerts a significant positive effect on communication management ($\beta = 0.326$, $p < 0.001$), and that communication management significantly mediates the supervisor support–performance relationship (H12: $\beta = 0.049$, $p = 0.014$). Given the non-significant direct path and the significant indirect path, this pattern is consistent with full mediation — meaning that supervisor support produces its performance-relevant effects entirely through the quality of organizational communication it generates. Supervisors who communicate clearly, deliver timely feedback, and maintain open academic dialogue create a communicative environment that reduces lecturers' role ambiguity, increases institutional alignment, and facilitates performance focus. This full mediation finding is consistent with Men and Bowen [20] theorization of internal communication as a sense-making mechanism and with Imam et al. [17] finding that supervisor support's effects on performance in organizational settings were transmitted through internal communication and engagement channels. It also reinforces the argument that in the academic context, the value of leadership is not in its authority but in its communicative quality.

4.5.3 Work-Life Balance and Lecturer Performance: The Mediating Role of Communication Management

The finding that work-life balance does not directly affect lecturer performance ($\beta = 0.067$, $p = 0.197$), rejecting Hypothesis 3, is consistent with the pattern of mixed and inconclusive evidence documented in the literature regarding the work-life balance–performance relationship in knowledge-intensive professions [10], [11]. While work-life balance is robustly associated with psychological well-being, job satisfaction, and reduced burnout, its translation into objective performance outputs, particularly in the academic profession, remains empirically contested.

A theoretically plausible explanation for this non-significant direct effect lies in the vocational and identity-laden nature of academic work. The academic profession is frequently described as a form of 'calling' in which work

boundaries and personal identity become deeply intertwined [24], making the work–nonwork boundary a less salient performance determinant than in conventional employment relationships. For lecturers who hold a strongly internalized professional purpose, good work-life balance may function primarily as a strain-reduction resource, improving subjective well-being, without necessarily generating incremental improvements in research output, teaching quality, or service contribution. This interpretation is further supported by the finding that work engagement, not work-life balance, emerges as the dominant psychological predictor of performance in this study.

Notably, however, the mediation analysis reveals that communication management significantly mediates the work-life balance–performance relationship (H13: $\beta = 0.031$, $p = 0.021$). Given the non-significant direct path and significant indirect path, this pattern is consistent with full mediation. This indicates that work-life balance policies and practices do not generate performance benefits autonomously; their impact is entirely contingent on the quality of organizational communication through which these policies are conveyed, understood, and implemented. When flexibility arrangements, workload boundaries, and role expectations are communicated ambiguously or inconsistently, lecturers may experience role conflict and perceived inequity, conditions known to undermine performance focus [11]. Conversely, when communication management is effective, work-life balance provisions function as clarity-generating resources that enable lecturers to structure their professional and personal demands more productively. This finding extends the work-life balance literature by establishing organizational communication as a necessary intervening condition for WLB policies to achieve performance-relevant outcomes, a condition that has been insufficiently examined in prior research, and particularly so in the private higher education settings of developing countries.

4.5.4 Work Engagement as a Strong Predictor of Lecturer Performance

The finding that work engagement has the strongest direct effect on lecturer performance in this study ($\beta = 0.443$, $p < 0.001$), supporting Hypothesis 4, warrants interpretation beyond simple confirmation of the JD-R model's predictions. The magnitude of this effect, nearly double that of human capital ($\beta = 0.239$), suggests that in the private university context of West Sumatra, the motivational and psychological investment of lecturers in their academic work is a more decisive performance driver than formal competence credentials.

This finding is consistent with the JD-R model's core proposition that engagement functions as the primary motivational pathway through which work resources are converted into performance outputs [3], and with Schaufeli et al. [12] conceptualization of engagement as encompassing vigor, dedication, and absorption, psychological states that directly enable sustained effort, creative problem-solving, and the deep concentration required for high-quality academic work. From a critical perspective, however, the dominance of work engagement over human capital challenges the assumption that competence development is the most impactful lever for improving lecturer performance. The results imply that in resource-constrained PTS environments, where formal incentive and career development systems are often limited, interventions targeting psychological engagement may generate higher performance returns than formal qualification-upgrading programs, at least in the near to medium term.

Additionally, the mediation analysis shows that work engagement significantly influences communication management ($\beta = 0.389$, $p < 0.001$), and that communication management partially mediates the work engagement–performance relationship (H14: $\beta = 0.058$, $p = 0.009$). The classification as partial mediation, in contrast to the full mediation found for supervisor support and work-life balance, is theoretically meaningful. It indicates that engaged lecturers generate performance benefits through two complementary pathways simultaneously: a direct pathway, reflecting their inherent capacity to sustain high-quality academic output through motivational states; and an indirect pathway through communication management, reflecting engaged lecturers' heightened propensity to utilize organizational communication channels for collaboration, knowledge sharing, and institutional goal alignment. This dual-pathway dynamic positions work engagement as uniquely situated among this study's predictors — it is the only variable capable of independently generating performance while simultaneously amplifying the communicative resources of the organization.

4.5.5 The Strategic Role of Communication Management as a Mediating Variable

One of the principal theoretical contributions of this study is the empirical demonstration of communication management's strategic mediating role within the lecturer performance model. The results show that communication management significantly mediates the effects of supervisor support

($\beta = 0.049$, $p = 0.014$), work-life balance ($\beta = 0.031$, $p = 0.021$), and work engagement ($\beta = 0.058$, $p = 0.009$) on lecturer performance, while no significant mediation was found for human capital ($\beta = 0.010$, $p = 0.140$).

Examining the nature of these mediation effects reveals a theoretically important differential pattern. For supervisor support and work-life balance, both contextual, organizationally-administered resources, the evidence is consistent with full mediation: their direct effects on performance are non-significant, while their indirect effects through communication management are significant. This indicates that these resources are entirely communication-dependent in their performance activation, they require the medium of organized, intentional communication to become performance-relevant. For work engagement, a psychological resource with stronger intrinsic activation capacity, the mediation is partial: CM enhances the work engagement–performance pathway but does not replace it. For human capital, a competence-based, individually-carried resource, communication management plays no significant mediating role whatsoever. This differential pattern, full mediation for contextual resources, partial mediation for psychological resources, and no mediation for competence-based resources, constitutes a novel theoretical typology that extends the JD-R model's conceptualization of how different resource classes translate into performance outcomes.

This typology is theoretically coherent with Men and Bowen [20] sense-making framework: contextual resources such as supervisor support and WLB policies are organizationally defined and externally administered, making their performance impact contingent on whether lecturers receive, understand, and internalize the institutional intentions behind them, a process that fundamentally requires effective communication. Competence-based resources, conversely, are internally carried and self-directed, rendering their performance activation less dependent on the communicative quality of the organization.

The direct effect of communication management on lecturer performance ($\beta = 0.150$, $p = 0.005$), while moderate in magnitude compared to the primary predictors, is statistically robust and theoretically meaningful. The relatively smaller beta coefficient is consistent with communication management's conceptual positioning as a facilitative and amplifying mechanism rather than a primary performance driver in its own right. It converts, channels, and operationalizes the performance-relevant potential of other resources, a function that is indispensable in organizations where multiple resource types must be coordinated to produce coherent institutional outcomes.

4.5.6 Theoretical Contributions

This study makes four substantive theoretical contributions to the human resource management and higher education management literature. First, to the best of the authors' knowledge, this study is among the first to simultaneously integrate Human Capital Theory, Organizational Support Theory, and the JD-R Model within a single unified empirical performance model for private university lecturers, tested using PLS-SEM in a developing country context. While each of these frameworks has been applied independently in higher education research, their integration into a multi-antecedent model that captures both intrinsic and contextual performance drivers — mediated by a communication management mechanism — has not been previously established in the literature.

Second, this study advances the JD-R model by identifying and empirically demonstrating a differential mediation pattern: communication management fully mediates the effects of contextual resources (supervisor support and work-life balance), partially mediates the effects of psychological resources (work engagement), and does not mediate the effects of competence-based resources (human capital) on lecturer performance. This typology refines the JD-R model's generalized treatment of work resources by establishing that the resource-to-performance pathway is not homogeneous across resource types, and that the facilitative function of organizational communication is bounded by the nature of the resource being activated.

Third, this study provides, to our knowledge, the first empirical test of communication management as a strategic mediating variable bridging multiple simultaneous organizational and individual resources to lecturer performance in private higher education settings in a developing country. Prior studies have examined internal communication's mediating role in specific isolated relationships [13]–[15], but none has tested its simultaneous mediating function across a multi-antecedent performance model in this institutional context.

Fourth, this study enriches the international higher education management literature by presenting empirical evidence from Indonesian private universities — an institutional context characterized by resource constraints, accreditation pressures, and heterogeneous workforce conditions that differ substantially from the public university settings that dominate the existing literature. The contextually grounded findings offer a more inclusive theoretical understanding of how organizational mechanisms operate in resource-limited academic environments in the Global South.

4.5.7 Implications

This study provides several important theoretical implications for the development of human resource management and higher education management literature: First, this study reinforces the Human Capital Theory by showing that the competence, knowledge, and academic abilities of lecturers remain the main determinants of performance, even in the context of organizations with structural limitations such as private universities (PTS). These findings confirm that human capital has a direct and strong influence on Lecturer Performance, without being mediated by organizational mechanisms, thereby affirming the intrinsic and autonomous nature of the academic profession.

Second, this study expands the Job Demands–Resources (JD-R) Model by placing Communication Management as a mechanism for converting psychosocial resources into performance. While most JD-R studies emphasize the direct role of work resources in engagement and performance, this study shows that, in the context of higher education, resources such as supervisor support and work-life balance require communication as an intermediary to have a significant impact.

Third, this study makes a conceptual contribution by emphasizing the strategic role of Communication Management as a mediator, rather than merely a supporting variable. The finding that Communication Management mediates the influence of supervisor support, work-life balance, and work engagement shows that organizational communication functions as a sense-making mechanism that enables lecturers to understand, accept, and internalize institutional policies and support.

Fourth, this study enriches the international literature by presenting empirical evidence from the context of private higher education institutions in developing countries, which still receive relatively little attention in reputable international journals. Thus, the results of this study contribute to the development of more contextual and inclusive theories.

The findings of this study have significant practical implications for leaders and managers of private higher education institutions: first, the study confirms that investing in the development of lecturer human capital must be a strategic priority. Programs to improve pedagogical competence, research methodology training, and support for scientific publications need to be designed sustainably. Given that human capital directly influences performance, improving individual lecturers' capacity will have a real impact on institutional performance.

Second, PTS leaders need to realize that leadership support does not automatically improve lecturer performance. Such support must be accompanied by effective communication management, including clear information, transparent policies, and two-way dialogue. Without effective communication, structural support can be perceived negatively by lecturers.

Third, the findings show that work-life balance policies need to be communicated clearly and consistently. Work flexibility, workload arrangements, and lecturer welfare policies will only have an impact on performance if lecturers understand their rights, obligations, and the institution's

expectations. Therefore, strengthening the internal communication system is a prerequisite for the success of work-life balance policies.

Fourth, PTS leaders need to develop strategies to increase work engagement through the creation of a supportive work environment, performance recognition, and career development opportunities. Engaged lecturers not only demonstrate higher performance but also contribute to the quality of organizational communication and collaboration.

From a higher education policy perspective, this study provides several important implications: First, accreditation agencies and policymakers need to consider Communication Management as an indicator of the quality of university governance. Until now, institutional performance assessments have focused more on academic output, while aspects of internal communication processes have received less attention. Second, policies to improve lecturer quality at private universities should not only focus on enhancing individual competencies but also on strengthening the organizational communication system. This approach will help private universities optimize the use of limited resources. Third, the results of this study can serve as a basis for developing a more context-specific human resource management model, especially for universities in developing regions and countries.

Although this study makes a significant theoretical and practical contribution, several limitations should be noted. First, this study uses a cross-sectional design, so it is not possible to draw long-term causal conclusions. Further research using a longitudinal design is recommended to observe the dynamics of lecturer performance over time. Second, the research data were collected through perception-based questionnaires, which are susceptible to common

method bias. Future research could combine perception data with objective performance indicators, such as scientific publications or teaching evaluations. Third, this study focused on private universities in West Sumatra, so the findings should be generalized with caution. Future research is recommended to test this model in the context of public universities or different geographical regions.

Nevertheless, this study applied several procedural and statistical remedies to minimize common method bias, including anonymous responses, varied item wording, and post hoc statistical testing using Harman's single-factor test and full collinearity assessment.

5. CONCLUSION

This study developed and tested a model of Lecturer Performance at private universities in West Sumatra, positing Communication Management as a mediator between human capital, supervisor support, work-life balance, and work engagement. The results show that human capital and work engagement are the main determinants of Lecturer Performance. At the same time, supervisor support and work-life balance only have a significant impact through Communication Management.

These findings confirm that Lecturer Performance is not only determined by resource availability, but also by how these resources are managed and communicated within the organization. Thus, Communication Management emerges as a strategic element in improving the effectiveness of human resource management in higher education. Overall, this study makes an important contribution to the development of higher education management theory and practice and offers a relevant conceptual model for private university administrators in their efforts to improve Lecturer Performance continuously.

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Author Contribution

All authors contributed equally to this work. All authors discussed the results and contributed to the final manuscript.

Conflict of Interest

The authors declare that they have no financial or non-financial competing interests related to this work.

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Biographical Sketch and Original Figures