

Rethinking Lecturer Productivity in Islamic Higher Education: Integrating Competence, Institutional Support, and Job Satisfaction

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Abstract

Academic productivity in Islamic higher education is shaped not only by lecturers' professional competence but also by the institutional conditions in which academic work is performed and interpreted. This study examined the relationships among lecturer competency, institutional environment, job satisfaction, and academic productivity in Private Islamic Higher Education Institutions (PTKIS) in Jambi, Indonesia. A sequential explanatory mixed-methods design was employed, involving 62 permanent lecturers in the quantitative phase and five purposively selected informants in the qualitative phase. Quantitative data were analyzed using PLS-SEM, followed by reflexive thematic analysis of explanatory interviews. The findings showed that competency and institutional environment were significantly associated with academic productivity, while the institutional environment was also significantly associated with job satisfaction. Job satisfaction mediated the relationship between institutional environment and academic productivity but did not mediate the competency-productivity relationship. Qualitative findings further showed that lecturers interpreted competence through professional and ethical responsibility and understood productivity beyond formal output indicators, including educational and societal contributions. The study demonstrates that personal and organizational resources contribute to academic productivity through different pathways, highlighting the importance of aligning lecturer competence with supportive institutional conditions and meaningful academic work.

A. Introduction

Academic productivity has become a decisive measure of institutional legitimacy in global higher education, yet access to the resources that enable such productivity remains profoundly unequal across regions and institutional contexts (Adewuyi et al., 2026; Chan & Abdul Halim, 2025; Maisura et al., 2026). Universities are confronted with mounting demands to demonstrate measurable knowledge outputs to remain internationally competitive, while simultaneously managing these expectations in ways that protect the psychological well-being of academic staff (Hasanudin et al., 2024). Global bibliometric findings further substantiate this divergence, showing that scholars in the Global South experience structural underrepresentation and reduced visibility in major indexing platforms, including Scopus and Web of Science (“Annual Report 2023,” 2024; Pratiwi & Warlizasusi, 2023; Maddi et al., 2025). This tension suggests that academic productivity cannot be understood solely as an individual capacity to produce scholarly outputs; it is also shaped by unequal institutional conditions, access to research resources, and the broader academic ecosystem in which lecturers work (Jannana et al., 2025; Shofwan et al., 2026).

Within Indonesia, lecturer productivity remains relatively low compared with regional benchmarks, largely because of systemic institutional obstacles. This productivity shortfall is driven mainly by excessive administrative workloads that reduce lecturers’ time available for sustained research, alongside a weak fit between institutional technology systems and day-to-day research practices that limits the practical use of digital resources (Mazlan et al., 2024; Fuadiy et al., 2025; Mutaqin et al., 2026). Evidence from national publication patterns recorded in SINTA and Scopus further indicates persistent disparities in scholarly output across Indonesia’s higher education sector. Accordingly, these national-level constraints underscore the urgent need to address the structural and technological frictions that impede research output among Indonesian lecturers (Maisura et al., 2026; Jannana et al., 2025).

This national productivity challenge becomes especially pronounced within Private Islamic Religious Higher Education Institutions (PTKIS), where academic performance expectations intersect with distinctive institutional, religious, and community-oriented missions. PTKIS must reconcile formal academic output demands with spiritual and community-oriented responsibilities (Gofur et al., 2023; Hasbiyallah et al., 2024; Suwendi et al., 2024; Supriatna, 2025; Hayadin et al., 2025; Budi et al., 2026), while simultaneously operating under constrained funding, limited research infrastructure, and intensifying

inter-institutional competition (Hajjali et al., 2022; Skopak et al., 2025). These intersecting pressures make PTKIS an important context for examining whether academic productivity is shaped only by competence and institutional resources or also by lecturers' experiences of satisfaction, professional responsibility, and the meaning of academic work (Usman et al., 2024; In'ami et al., 2025). In Jambi Province, however, these relationships remain insufficiently documented, leaving an important contextual gap that requires empirical investigation.

Existing literature on lecturer productivity has largely examined competence, job satisfaction, institutional conditions, and performance as separate or predominantly linear relationships. Prior variance-based, cross-sectional studies commonly model competency and job satisfaction as relatively static predictors, providing limited explanation of how lecturers interpret these constructs in everyday academic practice (Marlina et al., 2024; Noorhayati & Fahyuni, 2024). Other studies have examined self-efficacy and institutional support in different educational and organizational contexts (Comstock et al., 2023; Cruz et al., 2020; Henning et al., 2025; Mazlan et al., 2024; Aedi & Gorni, 2025). Although these studies offer important insights into individual and organizational determinants of performance, they explain only limited how these resources interact within faith-based higher education institutions, where professional responsibilities are intertwined with socio-religious values and institutional missions (Mubarok et al., 2023; Hasbiyallah et al., 2024).

This limitation reveals both empirical and interpretive research gaps. Empirically, the structural pathways linking lecturer competence, institutional environment, job satisfaction, and academic productivity have not been sufficiently examined as an integrated model within the PTKIS context. Interpretively, existing research offers limited insight into how lecturers construct the meaning of productivity while negotiating institutional constraints, professional expectations, and socio-religious commitments (Usman et al., 2024; In'ami et al., 2025). Consequently, examining these variables only as isolated predictors risks overlooking the mechanisms through which personal and institutional resources jointly shape academic productivity. Addressing these two gaps requires an analytical framework capable of connecting individual capability, organizational conditions, psychological experience, and contextually embedded academic practice (Hayadin et al., 2025; Suwendi et al., 2024; Pratiwi & Warlizasusi, 2023).

This study addresses these gaps by integrating the key variables within the Job Demands–Resources (JD–R) framework. JD–R provides the principal theoretical lens

because it enables lecturer competence to be conceptualized as a personal resource and the institutional environment as an organizational resource whose effects may operate both directly and through job satisfaction. Rather than treating these factors as isolated predictors, the framework enables their relationships to be examined within an integrated structural pathway (Domorenok et al., 2021; Hasanudin et al., 2024; Eriksson et al., 2025). Organizational Support Theory (OST) further complements this framework by explaining how lecturers' perceptions of institutional support may shape their work-related responses. Together, these perspectives provide a coherent basis for examining academic productivity within a resource-constrained, faith-based institutional setting (Aedi & Gorni, 2025; Mariani et al., 2024; Usman et al., 2024).

This study's novelty lies not merely in examining familiar determinants of lecturer productivity, but in integrating their structural relationships with lecturers' contextual interpretations of academic work in PTKIS. Methodologically, the study employs a sequential explanatory mixed-methods design in which the quantitative phase tests the structural relationships among competence, institutional environment, job satisfaction, and academic productivity, while the qualitative phase explains how lecturers experience and interpret these relationships. This integration allows the study to move beyond identifying whether particular variables are statistically associated with productivity toward explaining how and why those relationships take shape within the distinctive institutional context of Islamic higher education.

This study examines how lecturer competency and the institutional environment shape academic productivity through job satisfaction among PTKIS lecturers in Jambi. Specifically, it investigates whether the institutional environment and lecturer competency significantly predict job satisfaction and academic productivity, while also exploring how lecturers understand academic productivity beyond conventional publication metrics. By integrating these structural relationships with lecturers' lived academic experiences, the study seeks to develop a context-sensitive explanation of academic productivity and provide an empirical basis for more humanistic and evidence-based institutional policies in Islamic higher education.

B. Method

This study employed a sequential explanatory mixed-methods design (Creswell & Inoue, 2025), consisting of two distinct phases: quantitative followed by qualitative. The design was selected to establish statistical relationships first and then interpret them

through contextual insights. This approach was appropriate given the complex interplay between lecturer competence, institutional environment, job satisfaction, and academic productivity, which cannot be fully understood through quantitative data alone (McKim, 2017; Younas et al., 2023). The quantitative phase tested the direct and indirect relationships among the four constructs, whereas the qualitative phase explained the mechanisms and meanings underlying the statistical results.

The quantitative phase involved 62 permanent lecturers from PTKIS institutions in Jambi Province, selected through purposive sampling. Inclusion criteria required lecturers to hold permanent status, have at least two years of institutional experience, and actively implement the *Tridharma Perguruan Tinggi* (teaching, research, and community service). These criteria ensured that participants possessed sufficient institutional familiarity and professional engagement to provide valid responses. The sample size met methodological adequacy for PLS-SEM analysis, consistent with recommendations that small-to-medium samples remain robust when structural paths do not exceed model complexity thresholds (Mantog & Deriada, 2025).

The research instrument was a structured five-point Likert questionnaire comprising 49 items: 12 items measuring lecturer competence, 15 items measuring the institutional environment, 10 items measuring job satisfaction, and 12 items measuring academic productivity. The lecturer competence indicators were derived from Law No. 14 of 2005 on Teachers and Lecturers and cover pedagogic, professional, social, and personality dimensions. Institutional environment indicators were adapted from the Hackman–Oldham model and encompassed institutional support, academic culture, leadership, and facilities. Job satisfaction and academic productivity indicators were adapted from the Theory of the Three Pillars of Higher Education. All items underwent translation and expert review to ensure contextual relevance, achieving a Content Validity Index (CVI) above 0.80. Three senior education management specialists evaluated linguistic clarity, cultural appropriateness, and construct alignment.

The qualitative phase involved five informants purposively selected from the quantitative respondents based on extreme productivity scores (high and low categories). This strategy captured contrasting experiences to provide contextual explanations for the quantitative findings. Semi-structured interviews were conducted in person, lasted approximately 45–60 minutes, and were audio-recorded with participant consent. Transcripts were produced verbatim and analysed through reflexive thematic analysis

following systematic coding procedures. Data saturation was achieved after the fourth interview, when no new themes emerged. Credibility was ensured through member checking, whereby participants reviewed thematic summaries for accuracy and interpretive validity.

Data analysis proceeded sequentially. PLS-SEM was used to evaluate construct reliability, convergent and discriminant validity, path coefficients, coefficients of determination (R^2), effect sizes (f^2), and multicollinearity. The mediating role of job satisfaction was examined through specific indirect effects using bootstrapping with 5,000 subsamples and 95% confidence intervals. Qualitative data were analysed separately through reflexive thematic analysis. The quantitative and qualitative findings were subsequently integrated by aligning the statistical relationships with explanatory themes to identify convergence, complementarity, or divergence between the two forms of evidence. This integration provided a contextualized explanation of lecturers' academic productivity within PTKIS.

The study adhered to formal ethical procedures throughout data collection and analysis. Ethical clearance was obtained from the Research Ethics Committee of Universitas Islam Batang Hari (Approval No. B-179/R/UNV.00.1/03/2025). Participation was voluntary, informed consent was secured, and confidentiality was maintained. Respondents were assured that their data would be used solely for academic purposes and that they could withdraw at any time without institutional consequence.

C. Results and Discussion

This section provides the quantitative mapping of the structural relationships between variables, followed by a thematic analysis of explanatory interviews. The quantitative findings lay the statistical groundwork for the model, whereas the qualitative findings explore how lecturers interpret their professional experiences in daily practice, thereby contextualizing the statistical pathways.

1. Results

The results are presented sequentially, beginning with the quantitative assessment of the measurement and structural models, followed by the qualitative findings from the explanatory interviews. The quantitative analysis evaluates construct quality, structural relationships, explanatory power, effect sizes, and indirect effects, while the qualitative findings provide empirical accounts corresponding to the principal statistical patterns.

a. Evaluation of the Measurement Model

The quantitative analysis began with an assessment of the measurement model to establish the reliability and convergent validity of the four constructs before evaluating their structural relationships. The resulting reliability coefficients, composite reliability values, and Average Variance Extracted (AVE) for Academic Productivity, Competency, Environment, and Job Satisfaction are presented in Table 1.

Table 1. Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Academic Productivity	0.779	0.789	0.857	0.603
Competency	0.798	0.801	0.868	0.622
Environment	0.613	0.746	0.771	0.498
Job Satisfaction	0.855	0.855	0.903	0.699

Source: SmartPLS

The measurement model was evaluated using Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). Academic Productivity ($\alpha = 0.779$, AVE = 0.603), Competency ($\alpha = 0.798$, AVE = 0.622), and Job Satisfaction ($\alpha = 0.855$, AVE = 0.699) all exceeded the minimum acceptable thresholds. Among these constructs, Job Satisfaction demonstrated the highest reliability and convergent validity, followed by Competency and Academic Productivity. The composite reliability values further indicated satisfactory internal consistency across these three constructs. The Environment construct recorded the lowest Cronbach's Alpha (0.613) and AVE (0.498). Although the AVE for Environment is marginally below the conventional 0.50 cut-off, its composite reliability ($\rho_c = 0.771$) exceeds the 0.60 threshold recommended by Fornell and Larcker (1981) for cases where AVE falls below 0.50. Furthermore, most Environment indicators exceeded the ideal loading threshold of 0.708, while several retained items recorded loadings between 0.65 and 0.69.

Following the assessment of construct reliability and convergent validity, discriminant validity and potential multicollinearity were examined to determine whether the constructs were empirically distinguishable and whether excessive correlations could affect the structural estimates. These assessments were intended to ensure that each construct represented a distinct dimension and that potential collinearity did not compromise the interpretation of the structural relationships. The Fornell-Larcker results are presented in Table 2, complemented by the HTMT and VIF assessments reported subsequently.

Table 2. Discriminant Validity and Multicollinearity

Discriminant Validity - Fornell-Larcker Criterion				
Construct	Academic Productivity	Competency	Environment	Job Satisfaction
Academic Productivity	0.776			
Competency	0.705	0.789		
Environment	0.741	0.629	0.706	
Job Satisfaction	0.657	0.502	0.653	0.836

The Fornell-Larcker results indicate that the criterion was satisfied for most construct comparisons; however, the square root of the AVE for Environment (0.706) was lower than its correlation with Academic Productivity (0.741), indicating a discriminant-validity concern for this construct pair. Complementary assessment using the Heterotrait-Monotrait (HTMT) ratio produced values ranging from 0.512 to 0.741, all below the 0.85 threshold. VIF values ranged from 1.12 to 2.45, remaining below the 3.33 cut-off and indicating no problematic multicollinearity.

b. Structural Model Evaluation

After the measurement model had been assessed, the analysis proceeded to the structural model to examine the hypothesized relationships among Competency, Environment, Job Satisfaction, and Academic Productivity. The estimated path coefficients, standard errors, t-statistics, and significance levels for the direct and interaction effects are presented in Table 3.

Table 3. Path Coefficients

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Competency → Academic Productivity	0.362	0.369	0.087	4.154	0.000
Competency → Job Satisfaction	0.151	0.149	0.184	0.823	0.411
Environment → Academic Productivity	0.357	0.341	0.117	3.036	0.002
Environment → Job Satisfaction	0.558	0.560	0.128	4.361	0.000
Job Satisfaction → Academic Productivity	0.246	0.252	0.072	3.436	0.001
Job Satisfaction × Environment → Academic Productivity	0.004	-0.020	0.076	0.053	0.958

Source: SmartPLS

Competency had a significant positive effect on Academic Productivity ($\beta = 0.362$, $t = 4.154$, $p < 0.001$) but no significant effect on Job Satisfaction ($\beta = 0.151$, $t = 0.823$, $p = 0.411$). Environment had significant positive effects on Academic Productivity ($\beta = 0.357$, $t = 3.036$, $p = 0.002$) and Job Satisfaction ($\beta = 0.558$, $t = 4.361$, $p < 0.001$). Job Satisfaction had a significant positive effect on Academic Productivity ($\beta = 0.246$, $t = 3.436$, $p = 0.001$). The interaction term Job Satisfaction $\times$ Environment was not significant ($\beta = 0.004$, $t = 0.053$, $p = 0.958$), showing that the proposed interaction was not supported by the data.

Beyond the individual structural paths, the explanatory power of the model was assessed through the coefficient of determination (R^2). This analysis indicates the proportion of variance in each endogenous construct explained jointly by its predictors. The R^2 and adjusted R^2 values for Academic Productivity and Job Satisfaction are presented in Table 4.

Table 4. *R-Square*

Endogenous Variable	R-square	R-square Adjusted
Academic Productivity	0.677	0.660
Job Satisfaction	0.440	0.421

Source: SmartPLS

Competency, Environment, and Job Satisfaction jointly explained 67.7% of the variance in Academic Productivity ($R^2 = 0.677$; adjusted $R^2 = 0.660$). Competency and Environment jointly explained 44.0% of the variance in Job Satisfaction ($R^2 = 0.440$; adjusted $R^2 = 0.421$).

To complement the model's explanatory power, effect sizes (f^2) were examined to determine the relative contribution of each predictor to the endogenous constructs. The effect sizes of Job Satisfaction, Competency, Environment, and the Job Satisfaction $\times$ Environment interaction are summarized in Table 5.

Table 5. *Effect Size (f^2) of the Structural Model*

Independent Variable	Job Satisfaction	Academic Productivity
Job Satisfaction	–	0.105
Competency	0.025	0.209
Environment	0.336	0.164
Job Satisfaction $\times$ Environment	–	0.000

Source: SmartPLS

The effect-size analysis showed that Environment had a medium effect on Job Satisfaction ($f^2 = 0.336$). Competency had a medium effect on Academic Productivity ($f^2 = 0.209$), and Environment also had a medium effect on Academic Productivity ($f^2 = 0.164$). Job

Satisfaction had a small effect on Academic Productivity ($f^2 = 0.105$), whereas the interaction between Job Satisfaction and Environment showed essentially no effect ($f^2 = 0.000$).

c. Mediation Analysis

Because the proposed model positions Job Satisfaction as an explanatory mechanism linking the predictor constructs to Academic Productivity, the specific indirect effects were subsequently examined using bootstrapping with 5,000 subsamples. The estimated indirect coefficients, t-statistics, significance levels, and 95% confidence intervals for both mediation pathways are presented in Table 6.

Table 6. Specific Indirect Effects (Mediation Analysis)

Path	Original Sample (O)	STDEV	T Statistics	P Values	95% CI [Lower, Upper]
Environment → Job Satisfaction → Productivity	0.137	0.048	2.854	0.004	[0.045, 0.231]
Competency → Job Satisfaction → Productivity	0.037	0.048	0.782	0.434	[-0.052, 0.125]

Source: SmartPLS (Bootstrapping with 5,000 subsamples)

The specific indirect-effects analysis showed a significant indirect pathway from Environment to Academic Productivity through Job Satisfaction ($\beta = 0.137$, $p = 0.004$, 95% CI [0.045, 0.231]), with the confidence interval excluding zero. In contrast, the indirect pathway from Competency to Academic Productivity through Job Satisfaction was not significant ($\beta = 0.037$, $p = 0.434$, 95% CI [-0.052, 0.125]), and its confidence interval included zero. Thus, the indirect effect through Job Satisfaction was supported for the Environment pathway but not for the Competency pathway.

d. Qualitative Findings

The reflexive thematic analysis of the explanatory interviews generated two overarching themes corresponding to the principal quantitative relationships. The first concerned institutional conditions, adaptive responses, and job satisfaction, whereas the second concerned competency as a professional and moral basis for academic productivity.

The first theme showed that lecturers experienced institutional constraints while developing strategies to sustain their academic activities. Limited research funding emerged as one institutional constraint reported by participants: “My challenge in research and community service is limited research funding”. (Interview with DA, August 2025)

Alongside these constraints, lecturers described adaptive practices that connected teaching, research, and community service: *"I integrate research with community service and make lectures a field for class research"*. (Interview with SH, August 2025)

Participants also associated their academic experience with opportunities for professional development and usefulness to others: *"So that we are always given the opportunity to develop to become a great teacher and be useful to others"*. (Interview with M, August 2025)

Taken together, these accounts show that institutional constraints, adaptive academic practices, and perceived opportunities for professional development were simultaneously present in lecturers' experiences. These qualitative patterns correspond to the quantitative results showing significant Environment → Job Satisfaction, Environment → Academic Productivity, and Environment → Job Satisfaction → Academic Productivity pathways.

The second theme concerned competency as an internalized professional and moral responsibility. Participants described competence not only in technical terms but also through ethical qualities embedded in their professional roles. One participant stated: *"Honesty, justice, role model, discipline and responsibility are my moral foundations in carrying out my professional competence as a lecturer"*. (Interview with AH, August 2025)

The interviews also revealed a broader understanding of productivity that extended beyond formal administrative and publication indicators toward educational and societal impact: *"Productivity is not only measured by the number of reports or credit scores, but by the real impact on students and society"*. (Interview with HS, August 2025)

These accounts align with the quantitative pattern in which Competency was significantly associated with Academic Productivity but not with Job Satisfaction, and its indirect effect through Job Satisfaction was also non-significant. Qualitatively, lecturers described competency through professional responsibility, moral commitment, and perceived impact, providing contextual evidence for understanding the direct statistical relationship between Competency and Academic Productivity.

2. Discussion

Academic productivity among PTKIS lecturers emerges from two related but distinct mechanisms. Competency operates primarily as a direct personal resource, whereas the institutional environment contributes to productivity both directly and indirectly through job satisfaction. More importantly, the absence of a significant Competency → Job Satisfaction relationship indicates that professional capability does not necessarily produce greater satisfaction before becoming productive. The qualitative

evidence helps illuminate this pattern: lecturers understand competence through professional responsibility, ethical commitment, and the capacity to generate meaningful educational and societal contributions. Such an understanding is particularly plausible in Islamic higher education, where professional competence may intersect with ethical formation, pedagogical responsibility, and religiously informed academic values (Hasbiyallah et al., 2024; Usman et al., 2024). Competency therefore appears to function not simply as technical capital but as an internalized professional resource that can support productivity independently of job satisfaction.

This relationship provides a more context-sensitive reading of the Job Demands–Resources (JD–R) framework. Personal resources are generally associated with positive work-related states and performance, yet the PTKIS evidence suggests that the pathway connecting a personal resource to performance may depend on how that resource is understood and enacted. Studies of Islamic higher education similarly demonstrate that academic and educational practices are often embedded in processes of value integration rather than separated from them (Suwendi et al., 2024). Competence in this setting is consequently situated within an ethical and institutional meaning system. The present study therefore does not challenge the explanatory value of JD–R; it refines its contextual application by suggesting that the meaning attached to a personal resource can shape the mechanism through which that resource becomes productive.

A different mechanism becomes visible when institutional conditions are considered. The environment is significantly related to both Job Satisfaction and Academic Productivity, while its indirect relationship with productivity through Job Satisfaction is also significant. Organizational Support Theory (OST) helps explain this pattern because employees’ perceptions of institutional support can shape their attitudes and work-related responses (Kurtessis et al., 2017; Sam et al., 2024). Evidence from educational institutions likewise underscores the importance of institutional processes, quality-oriented management, and organizational support in sustaining professional practices (Jannana et al., 2025; Mariani et al., 2024). Within PTKIS, therefore, institutional resources matter not merely because they provide facilities for completing academic tasks; they also shape how lecturers evaluate their working conditions and experience their professional roles.

Yet institutional constraint does not translate mechanically into diminished academic activity. The qualitative evidence shows lecturers reorganizing available resources by connecting teaching, research, and community service rather than treating these

responsibilities as entirely separate domains. This adaptive behavior aligns with scholarship emphasizing academic actors' capacity to mobilize available resources under organizational constraints (Kusters et al., 2023; Micallef, 2025). Digital and pedagogical studies also demonstrate that productive educational practices increasingly depend on how available technologies and resources are selected and adapted to specific academic purposes rather than on their mere availability (Mutaqin et al., 2026). Adaptation, however, should not be romanticized as a substitute for institutional provision. Because Environment remains significantly related to both satisfaction and productivity, lecturers' adaptive agency complements rather than absolves institutional responsibility for creating supportive conditions.

Job satisfaction consequently assumes a more precise role in explaining lecturer productivity. It contributes significantly to Academic Productivity and mediates the Environment-Productivity relationship, but it does not mediate the Competency-Productivity relationship. This asymmetry suggests that satisfaction should not be treated as a universal psychological mechanism through which every academic resource becomes productive. Organizational conditions—including support, leadership, facilities, and academic culture—are subject to lecturers' evaluation of their working environment and therefore plausibly operate through satisfaction. Competency, by contrast, is interpreted through professional capacity and internalized responsibility. This distinction yields a differentiated-resource explanation of productivity: personal and organizational resources can contribute to the same academic outcome while operating through different psychological and behavioral pathways.

Such differentiation also changes how academic productivity itself should be interpreted. Lecturers' accounts extend productivity beyond publications, reports, and formal performance indicators toward educational and societal impact. This does not imply that bibliometric outputs are unimportant; rather, it indicates that formal outputs coexist with locally meaningful understandings of academic contribution. The distinction is particularly pertinent to Islamic higher education, where teaching, research, community engagement, and value-oriented institutional missions intersect. Recent scholarship portrays Indonesian Islamic higher education as negotiating modernization, institutional change, and established religious-educational traditions rather than simply replacing one with another (Hayadin et al., 2025). Knowledge integration has likewise been identified as an important feature of its academic development (Suwendi et al., 2024). Productivity in PTKIS is therefore better understood as an institutionally situated academic practice whose meaning cannot be exhausted by output counts alone.

This interpretation provides a firmer basis for the conceptual elaboration visualized in Figure 1. Islamic Value Integrity (IVI), Dynamic Academic Competence (DAC), Adaptive Task-Technology Fit (ATTF), Substantive Academic Productivity (SAP), and Spiritual Career Meaning (SCM) should not be presented as additional empirically validated constructs because they were not independently operationalized or tested in the structural model. Instead, they are interpretive dimensions derived from the integration of quantitative relationships and qualitative explanations. IVI and DAC articulate ethical and adaptive meanings attached to competence; ATTF captures adaptive resource use; SAP reflects a broader understanding of academic contribution; and SCM represents meaning attached to academic work. Their analytical value lies in explaining how the tested relationships are experienced in PTKIS rather than in claiming that a new five-construct measurement model has been validated.

Figure 1 therefore brings together the statistically established relationships and the contextual meanings generated through the qualitative phase. It should be read as an interpretive synthesis of the mixed-methods evidence rather than as a second structural model tested independently from the PLS-SEM analysis.

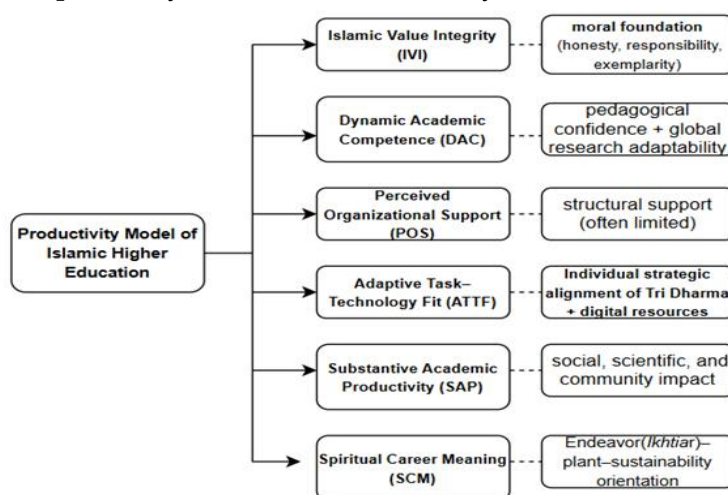


Figure 1. Implementation of the Productive Model

Read in this way, the proposed conceptualization extends rather than replaces JD-R and OST. JD-R explains the contribution of personal and organizational resources to work-related outcomes, while OST clarifies why institutional support can shape employees' attitudes and responses. The PTKIS evidence adds another analytical layer by showing that these resources are interpreted through ethical commitments, institutional experiences,

and adaptive academic practices. Research on pedagogical competence in Islamic higher education similarly indicates that professional development can be intertwined with moral self-regulation and value-based practice (Usman et al., 2024), while studies of Islamic educational knowledge integration demonstrate that disciplinary and value orientations need not function as separate domains (Suwendi et al., 2024). From this perspective, context is not merely a background characteristic but part of the process through which academic resources acquire meaning and translate into productive practice.

This distinction carries practical consequences for institutional policy. Because Environment is associated with both Job Satisfaction and Academic Productivity, interventions focused primarily on individual motivation or competency development cannot address the full productivity problem. Research support, academic infrastructure, responsive leadership, and professional development opportunities remain institutionally consequential. At the same time, the non-significant Competency → Job Satisfaction relationship cautions against assuming that enhancing lecturers' skills automatically increases their satisfaction. Contemporary competency-oriented education similarly emphasizes aligning capability development with the demands of the environment in which competencies are expected to function (Maisura et al., 2026). Competency development and organizational support should therefore be regarded as complementary but analytically distinct domains of institutional intervention, consistent with evidence that sustainable academic performance depends on interactions between individual capacity and supportive organizational ecosystems (Kullmann & Weimer, 2024; Okoliko & Adebayo, 2024; Subotnik et al., 2023).

Seen from the resource-constrained PTKIS setting in Jambi, these relationships also illuminate a broader problem confronting contemporary higher education. Academic performance is increasingly rendered through standardized outputs even though universities operate with substantially different research infrastructures, funding arrangements, professional cultures, and institutional purposes. Research across higher education systems similarly associates academic performance with institutional resources, work engagement, collaboration, and supportive research environments (Schaufeli & Bakker, 2022; Van Den Heuvel et al., 2020; Cheng et al., 2023; Liu et al., 2024). The changing landscape of Indonesian Islamic higher education itself demonstrates how institutions negotiate modernization while retaining distinctive educational traditions (Hayadin et al., 2025). The Jambi case adds to this broader discussion by showing how

resource availability interacts with the meanings academics attach to their responsibilities and their capacity to reorganize those resources in practice.

What travels beyond this local case, therefore, is not a specific PTKIS practice that other institutions should reproduce, but an explanatory mechanism worth considering comparatively. Faith-based, community-oriented, and resource-constrained institutions in different societies may organize academic work around very different cultural or religious values, yet they face a comparable analytical problem: how personal resources, institutional support, and locally embedded professional purposes combine to shape academic performance. Research increasingly locates academic productivity within organizational ecosystems, research cultures, digital infrastructures, and collaboration networks (Marginson, 2019; Zhao et al., 2023; Liu et al., 2024). PTKIS evidence adds meaning-making and adaptive agency to this conversation, suggesting that similar institutional resources need not produce identical academic responses when interpreted and mobilized within different professional and cultural environments.

These interpretations should be considered within the study's empirical boundaries. The quantitative sample was limited to 62 PTKIS lecturers in one Indonesian province, while the cross-sectional design does not establish temporal or causal relationships. The qualitative phase involved only five extreme-score informants and therefore cannot capture the full diversity of lecturer experiences. The structural model also excluded potentially relevant institutional factors and did not directly measure the interpretive dimensions emerging from the qualitative analysis. Finally, the discriminant-validity concern between Environment and Academic Productivity warrants caution despite acceptable HTMT results.

D. Conclusion

This research indicates that lecturer productivity in PTKIS is associated with distinct contributions from competence, the institutional environment, and job satisfaction. Competence and the institutional environment were directly associated with Academic Productivity, whereas Job Satisfaction mediated only the relationship between the Environment and Academic Productivity. The qualitative evidence further clarified how lecturers interpret competence through professional and ethical responsibility and understand productivity beyond formal output indicators, including its educational and societal value. Taken together, the findings show that personal competence and institutional

resources contribute to productivity through different pathways, while lecturers' interpretations of academic work provide important context for understanding these relationships in faith-based higher education.

The study's main contribution is a context-sensitive refinement of the JD-R and OST frameworks, showing that personal and organizational resources need not operate through identical mechanisms. The mixed-methods integration further identifies value-based meaning and adaptive agency as interpretive dimensions that help explain how lecturers experience these structural relationships. These dimensions should be regarded as conceptual elaborations grounded in the present findings rather than independently validated constructs. Practically, the findings indicate that strengthening academic productivity requires institutional support alongside competency development, rather than relying primarily on lecturers' individual capacity to compensate for structural constraints.

Future research should test these relationships across larger samples, different provinces, and public or non-religious higher education institutions to establish their contextual boundaries. Longitudinal designs are needed to examine temporal relationships among competence, institutional environment, job satisfaction, and productivity, while broader qualitative sampling could capture more diverse lecturer experiences. The interpretive dimensions emerging from this study should also be operationalized and independently validated before being incorporated into an extended structural model. Further measurement refinement is particularly important to distinguish Environment from Academic Productivity and reassess their discriminant validity across different samples.

Overall, the study shows that academic productivity in PTKIS extends beyond publication metrics. Sustainable productivity depends on aligning lecturers' competence, institutional support, and the meaningful values attached to academic work. Strengthening productivity therefore requires supportive institutional conditions rather than relying on lecturers to overcome structural constraints individually.

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Declaration of Competing Interest

The authors declare that they have no known competing financial or non-financial interests that could have appeared to influence the work reported in this paper.

Declaration of Generative AI

During the preparation of this manuscript, the authors used AI (Grammarly) to improve the clarity and readability of the text. Output generated by the tool was carefully reviewed and edited by the authors, who take full responsibility for the content of this article. All substantive intellectual contributions, including conceptualization, analysis, interpretation of data, and final decisions regarding content, arguments, and conclusions, were carried out solely by the authors. The authors take full responsibility for the integrity, originality, and academic quality of this article.

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