

THE EFFECT OF ADAPTIVE LEADERSHIP AND HUMAN RESOURCE DEVELOPMENT ON FACULTY PERFORMANCE, WITH ORGANIZATIONAL CITIZENSHIP BEHAVIOR AS AN INTERVENING VARIABLE

(A Study of Tenured Faculty at Muhammadiyah University of Jambi)

¹⁾ Deni Firmansyah, ²⁾ Rahayu Puji Suci, ³⁾ Muchlis Mas'ud, ⁴⁾ Aji Suraji, ⁵⁾ Hanif Rani Iswari

^{1), 2), 3), 4), 5)} Magister Manajemen, Universitas Widya Gama Malang, Indonesia

¹⁾ denyfirmansyah1994@gmail.com ²⁾ rahayu@widyagama.ac.id ³⁾ masudmuchlis@gmail.com

⁴⁾ ajisuraji@widyagama.ac.id , ⁵⁾ rani@widyagama.ac.id

*Correspondence Author: denyfirmansyah1994@gmail.com

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ABSTRACT

The acceleration of internationalization in Indonesian higher education to support the Golden Indonesia Vision 2045 has triggered a phenomenon gap characterized by high administrative workloads that threaten faculty productivity. This study aims to analyze the influence of Adaptive Leadership and Human Resource (HR) Development on Faculty Performance at Universitas Muhammadiyah Jambi (UM Jambi), utilizing Organizational Citizenship Behavior (OCB) as an intervening variable. Employing a quantitative approach, primary data were collected via Likert-scale questionnaires administered to all 73 full-time faculty members through census sampling. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 3.0 alongside Importance-Performance Map Analysis (IPMA). The hypothesis testing results revealed that all direct paths had positive and significant effects ($p < 0.05$). HR Development showed the strongest direct effect on OCB ($\beta = 0.488$), whereas Adaptive Leadership was the primary direct driver of Faculty Performance ($\beta = 0.470$). Furthermore, OCB significantly acted as a partial mediator in bridging the impact of both Adaptive Leadership ($\beta = 0.126$) and HR Development ($\beta = 0.136$) on Faculty Performance. Theoretically, these findings integrate Adaptive Leadership Theory and Social Exchange Theory, demonstrating that discretionary effort is most effectively triggered when competency investment is paired with flexible leadership. Practically, management is advised to streamline bureaucratic barriers, prioritize capacity-building budgets (doctoral studies and Scopus/WoS publications), and foster a collaborative work culture rooted in Islamic and Muhammadiyah values (AIK).

Informasi Artikel

Kata Kunci:

Kepemimpinan Adaptif; Pengembangan SDM; Organizational Citizenship Behavior (OCB); Kinerja Dosen; SEM-PLS.

ABSTRAK

Akselerasi internasionalisasi perguruan tinggi Indonesia dalam mewujudkan Visi Indonesia Emas 2045 memicu *phenomenon gap* berupa tingginya beban kerja administratif yang berisiko menurunkan produktivitas dosen. Penelitian ini bertujuan untuk menganalisis pengaruh Kepemimpinan Adaptif dan Pengembangan SDM terhadap Kinerja Dosen di Universitas Muhammadiyah Jambi (UM Jambi), dengan *Organizational Citizenship Behavior* (OCB) sebagai variabel *intervening*. Menggunakan pendekatan kuantitatif, data dihimpun melalui kuesioner berskala Likert dari 73 dosen tetap UM Jambi dengan teknik *census sampling* (sampling jenuh). Analisis data dilakukan menggunakan *Structural Equation Modeling* berbasis *Partial Least Squares* (SEM-PLS) via SmartPLS 3.0 serta analisis indeks kinerja melalui *Importance-Performance Map Analysis* (IPMA). Hasil pengujian hipotesis menunjukkan bahwa seluruh jalur hubungan langsung berpengaruh positif dan signifikan ($p < 0,05$). Pengembangan SDM memberikan pengaruh langsung terkuat terhadap OCB ($\beta = 0,488$), sementara Kepemimpinan Adaptif memberikan pengaruh langsung dominan terhadap Kinerja Dosen ($\beta = 0,470$). Selain itu, OCB terbukti secara signifikan bertindak sebagai *partial mediation* dalam menjembatani pengaruh Kepemimpinan Adaptif ($\beta = 0,126$) dan Pengembangan SDM ($\beta = 0,136$) terhadap Kinerja Dosen. Temuan ini secara teoritis mengintegrasikan *Adaptive Leadership Theory* dan *Social Exchange Theory*, membuktikan bahwa *discretionary effort* dosen paling efektif dipicu melalui investasi kompetensi yang dikolaborasi dengan kepemimpinan yang fleksibel. Secara praktis, UM Jambi disarankan untuk memangkas sekat birokrasi, memprioritaskan alokasi anggaran pada insentif peningkatan kapasitas (studi S3 dan publikasi Scopus/WoS), serta membangun iklim kerja kolaboratif berbasis nilai Al-Islam dan Kemuhimmadiyah (AIK).

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✉ **Corresponding Author:** (1) Deni Firmansyah (2) Magister Manajemen, (3) Universitas Widya Gama Malang, (4) Malang, Jawa Timur, Indonesia, (5) Email: denyfirmansyah1994@gmail.com

1. Introduction

The acceleration of the internationalization of higher education institutions in Indonesia is aligned with the “Golden Indonesia 2045” Vision to produce high-caliber human resources [7] This initiative has been taken up by the national network of Muhammadiyah and ‘Aisyiyah Higher Education Institutions (PTMA), which aims to achieve World Class University (WCU) status independently between 2031 and 2037 [14]. The spearhead of this transformation rests on faculty performance through a globally oriented Tridharma, such as publications with international Scopus/WoS citations and accelerated career advancement. However, in reality, these exponential demands have triggered a “phenomenon gap” characterized by a high administrative workload such as BKD tasks in the SISTER system which risks causing burnout and stagnation in faculty performance during the WCU transition era.

As the primary intellectual capital of higher education institutions [3], faculty members’ optimal performance heavily depends on adaptive and supportive institutional management [4]. Unfortunately, various empirical studies in Indonesia indicate the existence of a research gap. Regarding leadership, some studies have found a direct positive effect [9], but this has been refuted by other studies claiming that flexible leadership does not significantly influence performance [6]. Similar inconsistencies occur with regard to human resource development variables; competency programs have been shown to linearly increase productivity on the one hand [13], but on the other hand, it was found to have no significant effect on actual performance in the field if implemented without ties to the organizational culture [5].

Amid this academic debate, Organizational Citizenship Behavior (OCB) is regarded as a crucial instrument because it can trigger voluntary behavior beyond formal job descriptions to enhance institutional effectiveness [10]. Although the mediating role of OCB is sometimes considered weak or partial in some institutions, much contemporary research demonstrates that OCB is a highly persistent intervening variable in bridging management interventions with actual work outcomes [11] This governance gap is highly relevant to study at Muhammadiyah University of Jambi (UM Jambi). As part of the Muhammadiyah Higher Education Institutions (PTMA), UM Jambi is grounded in the ideological values of Islam and the Muhammadiyah Movement (AIK), which should foster OCB as a manifestation of an Islamic work ethic [8]. However, in operational reality, efforts to achieve “Excellent” accreditation are still hampered by a gap in global publication performance and stagnation in faculty members’ academic ranks.

Table 1. Gap Between Publication Performance and Academic Rank of Faculty Members at Muhammadiyah University of Jambi

No	Indikator Kinerja Utama (IKU)	Target / Standar Akreditasi “Unggul”	Realisasi Capaian (SINTA & PDDIKTI)	Ketercapaian (Gap) Kinerja
1	Publikasi Skala Nasional (Terindeks SINTA / Google Scholar)	Dosen aktif mempublikasikan minimal 1 karya per tahun.	1.641 Dokumen	(+) Positif/Terpenuhi. Kuantitas sangat baik. Menunjukkan dosen mampu meneliti secara mandiri (kewajiban dasar terpenuhi).
2	Publikasi Internasional Bereputasi (Terindeks Scopus / WoS)	Terdapat porsi yang proporsional (misal: minimal >100 dokumen atau ratio tertentu dari jumlah dosen).	28 Dokumen	(-) Negatif/Sangat Jauh. Terjadi ketimpangan ekstrem. Mengindikasikan minimnya kolaborasi riset lintas disiplin dan minimnya knowledge sharing antar dosen (OCB rendah).
3	Akselerasi Jabatan Fungsional Akademik (JFA)	Emporsi Lektor Kepala dan Guru Besar idealnya dominan (>40% untuk standar unggul).	Dominan Asisten Ahli & Lektor.	(-) Negatif/Stagnan. Terjadi hambatan lompatan karir. Mengindikasikan kurangnya bimbingan/mentoring sukarela dari dosen senior ke junior (helping behavior rendah) dan kurangnya kepemimpinan yang adaptif.

Source: Processed data, 2026

Based on Table 1, the low productivity of Scopus-indexed international publications and the stagnation in functional ranks indicate that faculty members tend to work independently with a “silo mentality.” This demonstrates that a formal, task-based approach is insufficient; UM Jambi requires adaptive leadership and human resource development strategies capable of fostering Organizational Citizenship Behavior (OCB) among faculty members, so that research collaboration and mentorship from senior to junior faculty can be maximized.

2. Research Method

In strategic higher education management, improving faculty performance is the primary foundation for the competitiveness of Muhammadiyah University of Jambi. This cannot be achieved solely through rigid bureaucratic control but must be aligned with the organization’s strategic direction [15] The success of this performance improvement rests on three main, mutually integrated pillars: a structured system through Human Resource Development as an investment in human capital to bridge competency gaps [1]; culture and direction through Adaptive Leadership, which acts as a strategic capability to mobilize change and innovation; and individual awareness in the form of Organizational Citizenship Behavior (OCB) as a manifestation of faculty members’ voluntary engagement beyond their formal job descriptions [2]. It is the synergy of these three pillars that ultimately serves as the primary driver in achieving the institution’s vision, mission, and Key Performance Indicator (KPI) targets.

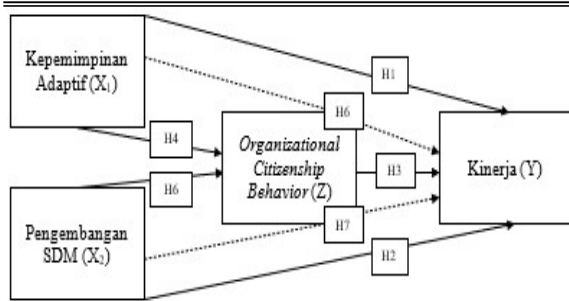


Figure 2. conceptual framework

This study analyzes the influence of Adaptive Leadership and Human Resource Development on Faculty Performance at Muhammadiyah University of Jambi (UM Jambi), with Organizational Citizenship Behavior (OCB) as the intervening variable. The primary focus of the study is the performance of tenured faculty members who are actively involved in the Tri Dharma of Higher Education. The research data consists of primary data collected through a Likert-scale questionnaire (1–5, ranging from “Strongly Agree” to “Strongly Disagree”), supplemented by interviews and observations, as well as secondary data in the form of personnel records, performance reports, and relevant literature to enhance the depth of the analysis.

The target population in this study includes all 73 tenured faculty members at Muhammadiyah University of Jambi. Given the relatively small and accessible population size, the sampling method used was census sampling. With this approach, all 73 tenured faculty members were included as active respondents. This approach was adopted so that the researcher could obtain complete, comprehensive, and accurate data regarding the dynamics of the relationships between variables without any sampling bias.

Data analysis was conducted using a Partial Least Squares (PLS)-based Structural Equation Modeling (SEM) approach via SmartPLS 3.0. The first step was to test the outer model to ensure the validity and reliability of the instrument using three criteria (Hair Jr. et al., 2017). First, Convergent Validity was measured based on Factor Loadings (LF) in the range of 0.6–0.7 (considered acceptable if the Average Variance Extracted (AVE) > 0.50 and Composite Reliability (CR) > 0.70). Second, Discriminant Validity was tested using the Fornell-Larcker criterion, cross-loadings, and an HTMT ratio < 0.9. Third, construct reliability was assessed through composite reliability and Cronbach’s alpha, with a minimum threshold of ≥ 0.70.

The second stage involved an inner model analysis to evaluate the model’s predictive power using the R² value and the Variance Inflation Factor (VIF < 5) to detect

Multicollinearity. The relative impact of exogenous variables was tested using Effect Size or “F”-Square (f²) with categories of small (0.02), moderate (0.15), and large (0.35) (Cohen, 1988), as well as a Predictive Relevance test (Q² range 0 < Q² < 1) through the blindfolding procedure. Hypothesis testing was conducted using the bootstrapping technique to measure 5 direct effect paths and 2 indirect effect paths via OCB mediation. A relationship was considered significant if the t-statistic value was greater than 1.96 or the p-value was less than 0.05.

In addition to structural testing, this study was refined with performance index analysis using Importance-Performance Map Analysis (IPMA) (Fong & Law, 2013). This method plots the total effect value (importance) on the x-axis and the average variable score (performance) on the y-axis. The research variables (Adaptive Leadership, Human Resource Development, and OCB) were mapped into four evaluation quadrants: Quadrant I (Keep Up the Good Work), Quadrant II (Concentrate Here / Top Priority for Improvement), Quadrant III (Low Priority), and Quadrant IV (Possible Overkill). These IPMA results provide concrete and precise recommendations for the management of UM Jambi in determining the priority scale for resource allocation to optimize the institution’s academic performance.

3. Results and Discussion

3.1 Results

3.1.1 Description of Research Variables

Descriptive data analysis is used to provide an overview of respondents’ responses for each research object; in this study, it is used to determine the nature of respondents’ responses to each research variable. Based on respondents’ responses regarding the indicators of the research variables, the researcher will describe in detail the respondents’ answers, which are grouped using descriptive statistics by categorizing them based on interval calculations to determine each variable. Respondents’ perceptions of the statement items within the research variables will be determined through index values. These index values are derived from the scale range (RS) score, and the formula for calculating the scale range (RS) proposed in [12] is as follows:

$$RS = \frac{m - n}{b}$$

$$RS = \frac{5 - 1}{5}$$

$$RS = 0.8$$

Dimana:

RS = Rentang skala
m = Angka maksimal dari poin skala dalam kuesioner
n = Angka minimum dari poin skala dalam kuesioner
b = Jumlah poin skala dalam kuesioner

Table 2. Frequency Distribution of the Adaptive Leadership Variable (X1)

ITEM	STS (1)	TS (2)	N (3)	S (4)	SS (5)	NILAI RATA-RATA	KRITERIA PENILAIAN
X1.1	1	11	25	23	13	3,49	Tinggi
X1.2	2	10	20	34	7	3,47	Tinggi
X1.3	2	5	32	27	7	3,44	Tinggi
X1.4	1	11	29	22	10	3,40	Cukup
X1.5	3	8	27	25	10	3,42	Tinggi
X1.6	0	11	25	28	9	3,48	Tinggi
X1.7	1	9	29	24	10	3,45	Tinggi
X1.8	3	13	26	23	8	3,27	Cukup
X1.9	0	14	23	28	8	3,41	Tinggi
X1.10	1	9	29	20	14	3,51	Tinggi
X1.11	2	8	27	27	9	3,45	Tinggi
X1.12	1	9	22	29	12	3,58	Tinggi
X1.13	3	7	27	24	12	3,48	Tinggi
X1.14	2	7	24	27	13	3,58	Tinggi
X1.15	0	6	29	31	7	3,53	Tinggi
X1.16	3	12	25	23	10	3,34	Cukup
X1.17	2	6	33	24	8	3,41	Tinggi
X1.18	2	13	26	20	12	3,37	Cukup
X1.19	4	6	26	25	12	3,48	Tinggi
X1.20	1	10	23	24	15	3,58	Tinggi
X1.21	1	11	25	24	12	3,48	Tinggi
X1.22	1	8	29	26	9	3,47	Tinggi
X1.23	2	9	29	25	8	3,38	Cukup
X1.24	0	14	20	32	7	3,44	Tinggi
X1.25	1	11	24	25	12	3,49	Tinggi
X1.26	1	10	21	32	9	3,52	Tinggi
RATA-RATA	1,50	9,73	25,85	25,92	10,00	3,46	Tinggi

Source: Processed Research Data (2026)

Based on the results of the frequency distribution data analysis, respondents' perceptions of the Adaptive Leadership variable (X₁) generally indicate a positive assessment with an overall average score of 3.46 (classified as "High"), where the responses from the 73 respondents were predominantly concentrated on the "Neutral" and "Agree" options. Item-by-item analysis shows that the most prominent indicators are found in items X1.12, X1.14, and X1.20, with the highest score of 3.58 (classified as "High"), reflecting the strength of leadership flexibility and managerial competence in dealing with changing work situations. Nevertheless, there is still room for improvement on several items that fall under the "Fair" criterion, with the lowest rating on item X1.8 (3.27), followed by items X1.16, X1.18, X1.23, and X1.4; items X1.8 and X1.24 recorded the highest rates of disagreement (14 respondents selected "Disagree"); this indicates that specific dimensions such as communication patterns, openness to innovation, or support for work adjustments still require further evaluation.

Table 3. Frequency Distribution of the Human Resource Development Variable (X2)

ITEM	STS (1)	TS (2)	N (3)	S (4)	SS (5)	NILAI RATA-RATA	KRITERIA PENILAIAN
X2.1	5	13	22	29	4	3,19	Cukup
X2.2	3	13	23	28	6	3,29	Cukup
X2.3	5	12	27	22	7	3,19	Cukup
X2.4	3	17	22	25	6	3,19	Cukup
X2.5	3	15	24	22	9	3,26	Cukup
X2.6	10	14	22	20	7	3,00	Cukup
X2.7	3	12	29	23	6	3,23	Cukup
X2.8	4	19	23	18	9	3,12	Cukup
X2.9	4	15	24	22	8	3,21	Cukup
RATA-RATA	4,44	14,44	24,00	23,22	6,89	3,19	Cukup

Source: Processed Research Data (2026)

Based on the results of the frequency distribution data analysis, respondents' perceptions of the Human Resource Development

variable (X₂) generally fall into the "moderate" category with an overall average score of 3.19 the "Fair" criterion, where, out of 73 respondents, the answers were dominated by the "Neutral" and "Agree" options, but it also recorded a relatively high average level of disagreement at 14.44 respondents. An in-depth analysis shows that all indicators fall within the "Fair" criterion, with the highest scores on items X2.2 (3.29) and X2.5 (3.26), reflecting that some employees are beginning to feel the benefits of the training programs provided. Conversely, critical gaps were found in item X2.6, which had the lowest score of 3.00 (10 respondents "Strongly Disagree" and 14 respondents "Disagree", as well as in item X2.8, with a score of 3.12, which recorded the highest level of disagreement at 19 respondents "Disagree"; this phenomenon sends a strong signal of real obstacles related to the equitable distribution of self-development opportunities, the clarity of the career system, or the effectiveness of training implementation, all of which require serious improvements in managerial policies.

Table 4. Frequency Distribution of Organizational Citizenship Behavior (OCB) Z

ITEM	STS (1)	TS (2)	N (3)	S (4)	SS (5)	NILAI RATA-RATA	KRITERIA PENILAIAN
Z.1	2	9	11	32	19	3,78	Tinggi
Z.2	0	5	18	22	28	4,00	Tinggi
Z.3	0	4	10	33	26	4,11	Tinggi
Z.4	2	6	13	25	27	3,95	Tinggi
Z.5	1	4	16	25	27	4,00	Tinggi
Z.6	1	5	21	24	22	3,84	Tinggi
Z.7	2	6	15	29	21	3,84	Tinggi
Z.8	0	4	17	29	23	3,97	Tinggi
Z.9	1	6	15	27	24	3,92	Tinggi
Z.10	1	4	18	32	18	3,85	Tinggi
Z.11	0	7	15	29	22	3,90	Tinggi
Z.12	1	2	17	28	25	4,01	Tinggi
Z.13	0	6	19	23	25	3,92	Tinggi
Z.14	0	8	19	24	22	3,82	Tinggi
Z.15	0	5	17	27	24	3,96	Tinggi
RATA-RATA	0,73	5,40	16,07	27,27	23,53	3,92	Tinggi

Source: Processed Research Data (2026)

Based on the results of the frequency distribution analysis, respondents' perceptions of the Organizational Citizenship Behavior (OCB / Z) variable showed a very positive rating with an overall average score of 3.92 classified as "High", where the response patterns of the 73 respondents were significantly dominated by the "Agree" and "Strongly Agree" options. Item-by-item analysis shows that all indicators consistently fall within the "High" criterion, with the most outstanding performance observed in item Z.3, which recorded the highest score of 4.11 (33 respondents "Agree" and 26 respondents "Strongly Agree", followed by item Z.12 (4.01), as well as items Z.2 and Z.5 (4.00); This indicates that altruism, courtesy, and conscientiousness have been very well internalized. Nevertheless, there are several items with relatively lower average scores that require managerial attention, such as item Z.1 with the lowest score of 3.78 (recording the highest level of disagreement with 9 respondents who Disagreed) and item Z.14 with a score of 3.82; this phenomenon suggests that the dimension of tolerance sportsmanship and organizational

engagement (civic virtue) still require ongoing development.

Table 5. Frequency Distribution of the Performance Variable (Y)

ITEM	STS (1)	TS (2)	N (3)	S (4)	SS (5)	NILAI RATA-RATA	KRITERIA PENILAIAN
Y.1	0	5	29	30	9	3,59	Tinggi
Y.2	2	8	23	32	8	3,49	Tinggi
Y.3	0	4	26	37	6	3,62	Tinggi
Y.4	0	8	29	30	6	3,47	Tinggi
Y.5	2	3	29	31	8	3,55	Tinggi
Y.6	0	5	30	30	8	3,56	Tinggi
Y.7	1	5	24	37	6	3,58	Tinggi
Y.8	0	5	24	38	6	3,62	Tinggi
Y.9	0	5	25	36	7	3,62	Tinggi
RATA-RATA	0,56	5,33	26,56	33,44	7,11	3,57	Tinggi

Source: Processed Research Data (2026)

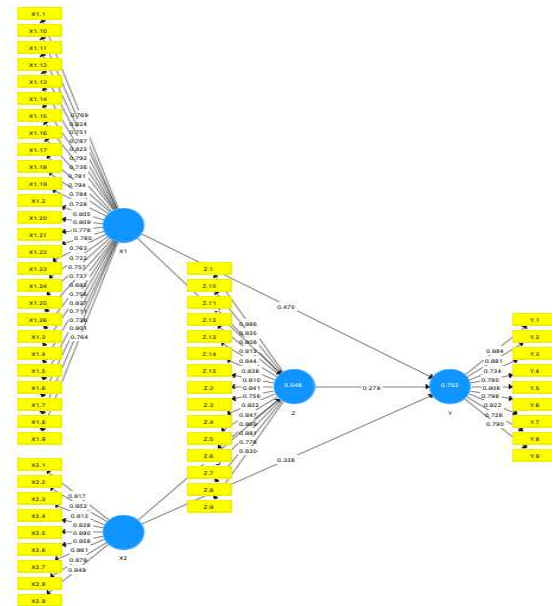
Based on the results of the frequency distribution analysis, respondents' perceptions of the Faculty Performance variable (Y) generally indicate a very positive assessment with an overall average score of 3.57 in the "High" category; among the 73 respondents, the distribution of responses was significantly concentrated on the "Agree" and "Neutral" options. Item-by-item analysis shows that all indicators consistently fall within the "High" criterion, with the highest scores achieved simultaneously by items Y.3, Y.8, and Y.9, which recorded an average score of 3.62, reflecting the lecturers' success in the aspects of teaching, evaluation objectivity, and commitment to the Tri Dharma. Nevertheless, variations in scores indicate room for improvement in item Y.4, which had the lowest score of 3.47, and item Y.2, with a score of 3.49; these two items recorded the highest cumulative number of "Disagree" responses, with 8 respondents selecting "Disagree"; This indicates that specific dimensions such as punctuality, face-to-face course load, or compliance with administrative requirements for learning still require ongoing monitoring and support from institutional management.

3.1.2 Analisis Statistik Inferensial

Measurement Model Testing (Outer Model) focuses on the relationship between latent variables and indicators. The purpose of outer model testing is to ensure that the instruments used to measure latent variables have good validity and reliability. [16]

The purpose of the validity test is to determine whether the set of indicators constructed can represent the latent variables. The measurement criterion, as indicated by the AVE value, must be greater than 0.50, so that it can be concluded that the latent variables (constructs) are explained by more than 50% by their indicators. The results of the AVE estimation are presented in Table 6.

Table 6. Measurement Model Output



Source: Processed Research Data (2026)

Based on the results of data analysis using SmartPLS, all indicators of the research variables were deemed valid because they had outer loading values above the required minimum threshold. Specifically, the outer loading values for the Adaptive Leadership variable (X₁) ranged from 0.682 to 0.837, where indicator X_{1.3} (0.682) was retained because it fell within the acceptable range and was supported by construct validity and reliability that met the criteria. Meanwhile, the outer loading values for the Human Resource Development variable (X₂) ranged from 0.813 to 0.890, Faculty Performance (Y) from 0.728 to 0.884, and Organizational Citizenship Behavior (OCB / Z) from 0.756 to 0.886; all indicators for these three variables exceeded 0.70, thereby meeting the criteria for convergent validity. Thus, all indicators were found to adequately reflect their respective constructs and are suitable for use in subsequent testing phases, such as discriminant validity, construct reliability, and structural model evaluation (inner model).

Table 7. Results of the Average Variance Extracted (AVE) Test

Variabel	Average Variance Extracted (AVE)	Ket.
X1	0,593	Valid
X2	0,723	Valid
Y	0,647	Valid
Z	0,691	Valid

Source: Processed Research Data (2026)

Based on Table 7, the results of data analysis using SmartPLS show that all variables in this study met the required AVE

criteria. Variable X1 obtained an AVE value of 0.593, variable X2 of 0.723, variable Y of 0.647, and variable Z of 0.691. All of these AVE values are above the minimum threshold of 0.50; therefore, each construct is deemed to have good convergent validity.

These results indicate that the indicators for each variable effectively explain the constructs being measured. Thus, all research variables have met the criteria for convergent validity based on the Average Variance Extracted (AVE) values and are suitable for use in subsequent analyses.

Table 8. Results of Cronbach's Alpha and Composite Reliability Tests

Variabel Penelitian	Cronbach's alpha	Composite reliability	Ket
X1	0,973	0,974	Reliabel
X2	0,952	0,959	Reliabel
Y	0,931	0,943	Reliabel
Z	0,968	0,971	Reliabel

Source: Processed Research Data (2026)

Berdasarkan hasil pengujian reliabilitas menggunakan SmartPLS, seluruh variabel dalam penelitian dinyatakan memenuhi kriteria reliabel dengan tingkat konsistensi internal yang sangat baik karena memiliki nilai *Cronbach's Alpha* dan *Composite Reliability* (CR) jauh di atas batas minimum 0,70. Secara rinci, nilai *Cronbach's Alpha* dan CR untuk variabel Kepemimpinan Adaptif (X_1) adalah 0,973 dan 0,974; variabel Pengembangan SDM (X_2) sebesar 0,952 dan 0,959; variabel Kinerja Dosen (Y) sebesar 0,931 dan 0,943; serta variabel *Organizational Citizenship Behaviour* (OCB / Z) sebesar 0,968 dan 0,971. Dengan demikian, seluruh instrumen penelitian terbukti andal, konsisten, dan layak digunakan untuk analisis pengujian model struktural (*inner model*) tahap selanjutnya.

Table 9. Hasil Uji R-Square (R2)

Variabel	R-Square	R-Square adjusted
Y	0,752	0,742
Z	0,548	0,535

Source: Processed Research Data (2026)

Based on the results of the structural model testing, the R-Square value for the Lecturer Performance variable (Y) was recorded at 0.752, with an Adjusted R-Square of 0.742. This indicates that 75.2% of the variation in variable Y can be explained by the exogenous variables in the model (classified as substantial/strong), while the remaining 24.8% is influenced by other factors outside the model. Meanwhile, the OCB (Z) variable yielded an R-Square value of 0.548 with an Adjusted R-Square of 0.535, meaning that 54.8% of the variation in variable Z can be explained by its predictor variables (classified as moderate), with the remaining 45.2% explained by factors

outside the study. Overall, these results demonstrate that the structural model possesses good predictive and explanatory power and is relevant in describing the relationships among variables in accordance with the study's objectives.

Table 10. Predictive Relevance (Q^2) Test Results

Variabel / Indikator	SSO	SSE	$Q^2 (=1-SSE/SSO)$	Keterangan
Organizational Citizenship Behaviour (Z)				
Z.1	73	43.514	0.404	$Q^2 > 0$ (Valid)
Z.2	73	52.261	0.284	$Q^2 > 0$ (Valid)
Z.3	73	51.666	0.292	$Q^2 > 0$ (Valid)
Z.4	73	50.038	0.315	$Q^2 > 0$ (Valid)
Z.5	73	41.447	0.432	$Q^2 > 0$ (Valid)
Z.6	73	47.432	0.35	$Q^2 > 0$ (Valid)
Z.7	73	39.7	0.456	$Q^2 > 0$ (Valid)
Z.8	73	44.105	0.396	$Q^2 > 0$ (Valid)
Z.9	73	45.832	0.372	$Q^2 > 0$ (Valid)
Z.10	73	52.864	0.276	$Q^2 > 0$ (Valid)
Z.11	73	40.448	0.446	$Q^2 > 0$ (Valid)
Z.12	73	46.052	0.369	$Q^2 > 0$ (Valid)
Z.13	73	51.652	0.293	$Q^2 > 0$ (Valid)
Z.14	73	42.062	0.424	$Q^2 > 0$ (Valid)
Z.15	73	44.735	0.387	$Q^2 > 0$ (Valid)
Kinerja Dosen (Y)				
Y.1	73	25.023	0.657	$Q^2 > 0$ (Valid)
Y.2	73	31.476	0.569	$Q^2 > 0$ (Valid)
Y.3	73	48.034	0.342	$Q^2 > 0$ (Valid)
Y.4	73	48.537	0.335	$Q^2 > 0$ (Valid)
Y.5	73	42.867	0.413	$Q^2 > 0$ (Valid)
Y.6	73	33.993	0.534	$Q^2 > 0$ (Valid)
Y.7	73	43.514	0.404	$Q^2 > 0$ (Valid)
Y.8	73	44.807	0.386	$Q^2 > 0$ (Valid)
Y.9	73	36.995	0.493	$Q^2 > 0$ (Valid)

Source: Processed Research Data (2026)

Based on the results of the Blindfolding algorithm calculations in SmartPLS, the Predictive Relevance (Q^2) test yielded highly satisfactory results, with all indicators of the endogenous variables having values above zero ($Q^2 > 0$). Specifically, the Q^2 values for the indicators of the Organizational Citizenship Behavior (OCB / Z) variable ranged from 0.276 to 0.456 (with the highest value of 0.456 for item Z.7), while for the Faculty Performance (Y) variable, they range from 0.335 to 0.657 (with the highest value at item Y.1 at 0.657). Since all values are consistently above zero, it can be concluded that the proposed structural model has strong and accurate predictive validity and is capable of explaining the relationship between Adaptive Leadership (X_1) and Human Resource Development (X_2) and their effects on OCB (Z), as well as their impact on Faculty Performance (Y).

The inner model in PLS-SEM depicts the relationships among latent variables and is tested to assess the strength and significance of these relationships. The testing covers three main aspects: R-Square, Effect Size, and the significance of the relationships (hypothesis testing).

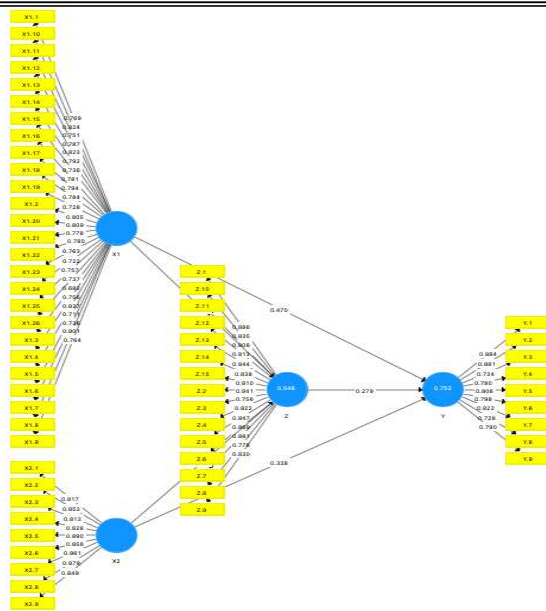


Figure 3. Structural Model

3.1.3 Hypothesis Testing

Significance tests for relationships in PLS-SEM were conducted to determine whether the relationships among latent variables in the model could be considered statistically significant. This process used the bootstrapping technique, in which the data were resampled to calculate path coefficients and their standard errors. The results are reported as t-statistics or p-values. A relationship is considered significant if the p-value is less than the predetermined significance level (in this study, 0.05). Significant path coefficients indicate a relationship between the independent variables.

Table 11. Results of Direct Hypothesis Testing

Pengaruh Langsung	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Keterangan
Kepemimpinan Adaptif → Kinerja	0.47	0.487	0.073	6.448	0.0000	Diterima
Pengembangan SDM → Kinerja	0.338	0.348	0.082	4.14	0.0000	Diterima
Kepemimpinan Adaptif → OCB	0.45	0.461	0.078	5.763	0.0000	Diterima
Pengembangan SDM → OCB	0.488	0.49	0.068	7.155	0.0000	Diterima
OCB → Kinerja	0.279	0.257	0.1	2.794	0.0050	Diterima
Pengaruh Tidak Langsung						
Kepemimpinan Adaptif → OCB → Kinerja	0.126	0.119	0.053	2.384	0.0180	Diterima
Pengembangan SDM → OCB → Kinerja	0.136	0.124	0.051	2.679	0.0080	Diterima

Source: Processed Research Data (2026)

3.2 Discussion

The discussion of the research results will elaborate on how the analysis of the hypothesis testing addresses the research objectives, relating them to the underlying theory and to the results of previous studies.

3.2.1 The Effect of Adaptive Leadership (X1) on Performance (Y)

Based on the results of the hypothesis test using PLS, the path between Adaptive Leadership (X1) and Faculty Performance (Y) showed an Original Sample (O) value of 0.470. This positive path coefficient indicates that the better the implementation of adaptive leadership by the administrative leadership at Muhammadiyah University of Jambi, the greater the linear increase in the quality of faculty performance.

This effect is reinforced by a T-statistic value of 6.448, which is well above the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.000 (less than 0.05) empirically confirms that the first hypothesis in this study is accepted.

3.2.2 The Effect of Human Resource Development (X2) on Performance (Y)

Based on the results of the hypothesis test using PLS, the path between Human Resource Development (X2) and Faculty Performance (Y) shows an Original Sample (O) value of 0.338. This positive path coefficient indicates that every effort to improve the quality of human resource development at Muhammadiyah University of Jambi will be followed by a corresponding increase in faculty performance. This coefficient provides preliminary confirmation that institutional investment in faculty competencies makes a tangible contribution to boosting academic performance.

The significance of this effect is reinforced by a T-statistic value of 4.140, which is well above the critical value of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.000 (less than 0.05) empirically proves that the second hypothesis in this study is accepted.

3.2.3 The Effect of Adaptive Leadership (X1) on Organizational Citizenship Behavior (OCB) Z

Based on the results of the hypothesis test using PLS as shown in your data file, the path between Adaptive Leadership (X1) and Organizational Citizenship Behavior (OCB) (Z) shows an Original Sample (O) value of 0.450. This positive path coefficient indicates that the better the adaptive leadership

practices implemented by the management at Muhammadiyah University of Jambi, the more significant the resulting increase in voluntary behavior, or OCB, among faculty members will be. This positive relationship provides an initial indication that a leader's flexibility can positively influence the psychological and moral aspects of their subordinates' work.

This effect is reinforced by a T-statistic value of 5.763, which is well above the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.000 (less than 0.05) empirically confirms that the hypothesis regarding the relationship between X1 and Z in this study is accepted.

3.2.4 The Effect of Human Resource Development (X2) on Organizational Citizenship Behavior (OCB) Z

Based on the results of the hypothesis test using PLS, the path between Human Resource Development (X2) and Organizational Citizenship Behavior (OCB) (Z) showed an Original Sample (O) value of 0.488. This positive path coefficient indicates that any increase in the quantity and quality of human resource development programs at Muhammadiyah University of Jambi will be followed by a significant increase in organizational citizenship behavior (OCB) among faculty members. This positive relationship provides preliminary evidence that strengthening faculty competencies has strong psychological implications for their willingness to contribute to the institution.

This effect is reinforced by a T-statistic value of 7.155, which is well above the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.000 (less than 0.05) empirically confirms that the hypothesis regarding the relationship between X2 and Z in this study is accepted.

3.2.5 The Effect of Organizational Citizenship Behavior (OCB) (Z) on Performance (Y)

Based on the results of the hypothesis test using PLS, the path between Organizational Citizenship Behavior (OCB) (Z) and Faculty Performance (Y) showed an Original Sample (O) value of 0.279. This positive path coefficient indicates that any increase in organizational citizenship behavior or voluntary actions by lecturers at Muhammadiyah University of Jambi will be followed by an increase in the individual performance of those lecturers. These preliminary findings suggest that prosocial motivation beyond formal obligations directly contributes to academic performance.

This effect is reinforced by a T-statistic value of 2.794, which exceeds the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.005 (less than 0.05) empirically confirms that the hypothesis regarding the

relationship between Z and Y in this study is accepted

3.2.6 The Effect of Adaptive Leadership (X1) on Performance (Y) through Organizational Citizenship Behavior (OCB) (Z) as an Intervening Variable

Based on the results of the indirect effect hypothesis test using PLS, the mediation path between Adaptive Leadership (X1) and Faculty Performance (Y) through Organizational Citizenship Behavior (Z) showed an Original Sample (O) value of 0.126. This positive path coefficient indicates that OCB (Z) successfully acts as a bridge or mediator that reinforces the positive impact of adaptive leadership on improving faculty productivity at Muhammadiyah University of Jambi.

This indirect relationship points to a new direction: that interventions focused on voluntary behavior can optimize the efficiency of leadership styles on campus. This mediating effect is reinforced by a T-statistic value of 2.384, which is above the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.018 (less than 0.05) empirically confirms that the hypothesis of indirect influence in this study is accepted.

3.2.7 The Effect of Human Resource Development (X2) on Performance (Y) through Organizational Citizenship Behavior (OCB) (Z) as an Intervening Variable

Based on the results of the indirect effect hypothesis test using PLS, the mediation path between Human Resource Development (X2) and Faculty Performance (Y) through Organizational Citizenship Behavior (OCB) (Z) showed an Original Sample (O) value of 0.136. This positive path coefficient indicates that OCB (Z) successfully acts as an emotional and behavioral bridge that reinforces the positive impact of capacity-building investments on improving the work productivity of lecturers at Muhammadiyah University of Jambi.

This indirect relationship provides empirical evidence that enhancing lecturers' competencies will yield far greater performance outcomes when accompanied by the stimulation of voluntary work motivation. This mediating effect is reinforced by a T-statistic value of 2.679, which exceeds the critical threshold of 1.96 at a 5% significance level. Furthermore, the recorded P-value of 0.008 (less than 0.05) empirically confirms that the hypothesis of this indirect effect is accepted.

4. Conclusion

Based on the results of hypothesis testing using SmartPLS, all direct effect paths in this study were accepted at a very high level of significance ($P < 0.05$). Specifically, Adaptive Leadership (X1) has a positive and significant effect on Faculty Performance

(Y) with a path coefficient of 0.470 ($T = 6.448$; $P = 0.000$) and on OCB (Z) of 0.450 ($T = 5.763$; $P = 0.000$). Furthermore, Human Resource Development (X_2) had a positive and significant effect on Faculty Performance (Y) of 0.338 ($T = 4.140$; $P = 0.000$) and on OCB (Z) of 0.488 ($T = 7.155$; $P = 0.000$), which was also the strongest direct effect in this model. Meanwhile, the OCB (Z) variable was also found to have a positive and significant effect on Faculty Performance (Y) with a coefficient of 0.279 ($T=2.794$; $P=0.005$).

In the indirect effect analysis, OCB (Z) was found to significantly act as a mediating variable through partial mediation. OCB successfully mediated the effect of Adaptive Leadership (X_1) on Faculty Performance (Y) with a mediation coefficient of 0.126 ($T=2.384$; $P = 0.018$), and it mediated the effect of Human Resource Development (X_2) on Faculty Performance (Y) with a mediation coefficient of 0.136 ($T = 2.679$; $P = 0.008$). Theoretically, these findings expand the body of knowledge by integrating Adaptive Leadership Theory and Social Exchange Theory. These results demonstrate that OCB is a highly valid mediating variable; the finding that the $X_2 \rightarrow Z$ path has the highest coefficient provides a new theoretical contribution, suggesting that faculty members' discretionary effort is more easily triggered through concrete investment in and recognition of their professional expertise.

In practical terms, the results of this study provide a blueprint for the administration of Muhammadiyah University of Jambi, indicating that strengthening institutional quality cannot rely on a rigid formal bureaucracy but must address three strategic aspects. First, the university administration and deans' offices are advised to implement responsive and adaptive structural communication patterns to reduce bureaucratic barriers. Second, the institution must optimize its human capital investment strategy by prioritizing budget allocations for sustainable programs, such as accelerating doctoral studies, training in publishing in reputable international journals, and professional certification. Third, the management of the work environment needs to be improved by fostering and valuing a culture of mutual assistance and voluntary cooperation (OCB) among faculty members, as this cooperative social climate has proven effective in transforming individual potential into tangible institutional performance outcomes.

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