

The Influence of Leadership, Academic Culture, and Technology Mastery on Lecturer Performance: Mediating Effect of Lecturer Competence

Leadership,
Academic Culture,
and Technology

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ABSTRACT

Lecturer performance is shaped by both personal abilities and institutional factors. While traditionally assessed through the Tri Dharma of Higher Education, performance expectations now extend to administrative and technological responsibilities, particularly in developing academic ecosystems. This study investigates the direct and indirect effects of competence, leadership, academic culture, and technology mastery on lecturer performance, using data from 410 lecturers analyzed with Partial Least Squares Structural Equation Modeling. The results show that competence is the most influential factor, exerting a strong direct effect on lecturer performance. Leadership, academic culture, and technology mastery also demonstrate direct relationships with competence, with academic culture and technology mastery indirectly influencing performance through competence. However, leadership does not significantly affect performance either directly or indirectly. These findings emphasize competence as the key determinant of lecturer performance, mediating the effects of institutional and technological factors. The study highlights the importance of strengthening lecturer competence and fostering supportive academic environments, while suggesting that leadership alone is insufficient to drive performance improvement.

Keywords: Academic Culture, Competence, Leadership, Lecture Performance, Technology Mastery.

ABSTRAK

Kinerja dosen dibentuk oleh kemampuan pribadi dan faktor kelembagaan. Meskipun secara tradisional dinilai melalui Tri Dharma Perguruan Tinggi, ekspektasi kinerja kini meluas ke tanggung jawab administrasi dan teknologi, khususnya dalam mengembangkan ekosistem akademik. Penelitian ini meneliti pengaruh langsung dan tidak langsung kompetensi, kepemimpinan, budaya akademik, dan penguasaan teknologi terhadap kinerja dosen, dengan menggunakan data dari 410 dosen yang dianalisis dengan Partial Least Squares Structural Equation Modeling. Hasil penelitian menunjukkan bahwa kompetensi merupakan faktor yang paling berpengaruh, memberikan efek langsung yang kuat terhadap kinerja dosen. Kepemimpinan, budaya akademik, dan penguasaan teknologi juga menunjukkan hubungan langsung dengan kompetensi, dengan budaya akademik dan penguasaan teknologi secara tidak langsung mempengaruhi kinerja melalui kompetensi. Namun, kepemimpinan tidak secara signifikan mempengaruhi kinerja baik secara langsung maupun tidak langsung. Temuan ini menekankan kompetensi sebagai penentu utama kinerja dosen, memediasi efek faktor kelembagaan dan teknologi. Studi ini menyoroti pentingnya memperkuat kompetensi dosen dan membina lingkungan akademik

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INTRODUCTION

The success of a country's education is a key indicator of national progress, with the world education forum noting that educational advancement positively contributes to development in various sectors (Nadeak, 2020). In Indonesia, efforts to improve education span all levels, with higher education serving as a vital pillar for fostering critical thinking and problem-solving. Lecturers, as academic staff, play a central role by organizing and delivering education, guiding students, and engaging in research and community service. Managing higher education human resources thus becomes essential, aiming to maximize lecturers' potential while addressing their challenges. Beyond teaching, lecturers are also expected to conduct quality research and publish in reputable journals, reinforcing their role in advancing higher education.

Lecturer performance can be measured from the implementation of the *Tri Dharma* of Higher Education, namely Education, Research, and Community Service, plus other supporting factors that lead to the functional position of lecturers. In addition, the academic qualifications of lecturers and various aspects of work performance are requirements for determining teaching authority so that lecturers must have competence. In order to fulfill their professional responsibilities, lecturers need to possess, internalize, master, and realize a set of behaviors, abilities, and knowledge known as lecturer competency.

The development of education amidst the challenges of the industrial revolution 4.0 requires visionary leadership, but it is necessary to develop the way of thinking of an educational leader not only to be able to formulate a vision for the future but also to be able to provide maximum service to users of educational services at the institution (Mutaroh & Resmawa, 2019). Visionary leadership in Total Quality Management (TQM) seeks to provide a leadership concept that is able to formulate future goals and is accompanied by activities that fulfill customer satisfaction through continuous improvement (Ateş et al., 2020; Aboramadan & Dahleez, 2020).

Jambi Province is one of the provinces in the Regional Higher Education Service Institution (*Lembaga Layanan Pendidikan Tinggi Wilayah/LLDIKTI*) Region X working area, however, in terms of performance in the education sector, it is relatively low compared to other provinces. There are only two professors at private universities in Jambi Province, which indicates low lecturer performance. In Jambi Province, there is only one private university or study program that has achieved an A or superior accreditation, indicating a low academic culture. There are still lecturers with undergraduate education qualifications, indicating low competence. In the field of research, the absorption of research grant funds for Private Universities (*Perguruan Tinggi Swasta/PTS*) lecturers in Jambi Province tends to be lower than other provinces. In the field of community service, the absorption of research grant funds for PTS lecturers in Jambi Province tends to be lower than other provinces.

Previous studies have shown that leadership, academic culture, and mastery of technology each have a positive effect on lecturer performance, as well as playing a role in improving lecturer competence (Sriekanningsih et al., 2019; Novriyanti, 2019; Mulyadi, 2021; Hutasuhut & Falahi, 2021; Nazir et al., 2022; Kustiningsih et al., 2022). In addition, pedagogic and personality competencies have also been shown to contribute significantly to performance improvement (Novita & Yulianti, 2020). However, most studies still focus on the direct relationship between variables, whether from leadership, academic culture, or technology to performance, or from these factors to lecturer competence separately.

There is still limited research that explicitly places lecturer competence as a mediating variable that bridges the influence of leadership, academic culture, and mastery of technology on lecturer performance. Therefore, this study is here to fill this gap by examining the role of lecturer competence as a mediating variable in the relationship between external factors and performance, so that it can provide a more comprehensive understanding of the determinants of lecturer performance in higher education.

From the formulation of the problem, a direct relationship model is formed between competence, mastery of technology, academic culture of leadership, on lecturer performance, and an indirect relationship using an intermediary variable, namely competence. With a complete model and different theoretical foundations, this study will be able to provide an explanation of how competence, mastery of technology, academic culture of leadership are related to lecturer performance. The purpose of this study is to analyze the role of lecturer competence as a mediating variable in the relationship between leadership, academic culture, and mastery of technology on lecturer performance.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

The Determinants of Lecturer Competence

Leadership can encourage someone to improve their knowledge and skills in doing work, thus the competence of its members will also increase. Competence determines the process aspects of a job's performance. The competence of each lecturer shows the true quality of themselves. The competence of educators, especially lecturers, is interpreted as a set of knowledge, skills and behaviors that must be possessed, internalized, mastered and realized by lecturers in carrying out their professional duties (Hakim, 2015; Novriyanti, 2019). In the field of education, the role of information technology has changed learning behavior, giving birth to innovations in learning such as e-learning. However, development has not been balanced with the ability to use it. As a result, the sophistication of information technology has not matched its contribution to the advancement of education.

Academic culture can be understood as the whole academic life and activities that are lived, interpreted, and practiced by academics, especially in educational institutions. Quoting the opinion Nazir et al. (2022) which states that academic culture, as a subsystem of higher education, plays a crucial role in efforts to build and develop the nation's and state's culture and civil society. A strong and superior university academic culture offers various benefits, including enabling lecturers and universities to maintain the quality of their scholarship, promoting academic freedom, upholding the principles of truth, objectivity, openness, and maintaining their independence. A strong academic culture will also prevent lecturers and universities from being easily co-opted by the interests of political power, whether from the government, socio-religious organizations, or political parties. Academic Culture encourages lecturers to improve their competence (Kustiningsih et al., 2022; Srikaningsih et al., 2019; Serpa et al., 2022)

H1: Leadership has a significant effect on lecturer competence.

H2: Academic culture has a significant effect on lecturer competence.

H3: Technology mastery has a significant effect on lecturer competence.

The Determinants of Lecturer Performance

Lecturer performance is the result achieved by lecturers in implementing the Tri Dharma of Higher Education, which includes education, research, and community service, based on the skills, experience, and responsibilities carried out (Rahmawati, 2019). Lecturer performance is influenced by various factors, one of which is leadership. Effective leadership can encourage lecturers to work more optimally because, through their influence and authority, a leader is able to motivate members to achieve organizational goals (Mulyati, 2017; Sismiati et al., 2025). This is in line with the findings that there is a significant influence between leadership and lecturer performance (Mulyadi, 2021). Furthermore, the path-goal leadership pattern has been proven to be

related to lecturer job satisfaction through support, participation, achievement orientation, assignments, and effective supervision (Handayani et al., 2019; Agustina; 2025).

In addition to leadership, organizational culture is also an important determinant. Positive lecturer performance and a strong organizational culture can increase student motivation to learn in higher education (Sutawan et al., 2023). The results of other studies show that cultural variables have a significant positive influence on lecturer performance, as found in universities in Tarakan and Sabah (Sriekanningsih et al., 2019). In addition, the use of information technology plays an important role in supporting lecturer performance, where technology can increase the effectiveness and productivity of the implementation of Tri Dharma tasks (Hutasuhut & Falahi, 2021). Another factor that also determines is pedagogic competence and personality, which have been proven to have a positive and significant influence on lecturer performance (Novita & Yulianti, 2020). Thus, lecturer performance is not only determined by individual factors, but also influenced by leadership, organizational culture, technology utilization, and competency mastery, which together support the achievement of higher education quality.

H4: Leadership has a significant effect on lecturer performance.

H5: Academic culture has a significant effect on lecturer performance.

H6: Technology mastery has a significant effect on lecturer performance.

H7: Lecture competency has a significant effect on lecturer performance.

Lecturer Competence as Mediating Variable

Lecturer competence is understood as a set of knowledge, skills, and behaviors that must be possessed, internalized, and realized in carrying out professional duties in higher education (Hakim, 2015; Novriyanti, 2019). This competency determines how a lecturer can carry out the Tri Dharma effectively and is a determinant of the quality of academic performance. A number of studies show that competence not only has a direct effect on performance, but is also influenced by external factors such as leadership, academic culture, and technological mastery.

Effective leadership can encourage the development of lecturers' knowledge and skills, so that their competence increases (Spendlove, 2007; Radwan et al., 2021; Mulyadi, 2021). A strong academic culture, which emphasizes academic freedom, objectivity, and professionalism, has also been shown to play an important role in improving lecturer competence (Sriekanningsih et al., 2019; Nazir et al., 2022; Kustiningsih et al., 2022). On the other hand, the development of information technology has changed learning behavior and given birth to learning innovations such as e-learning, although it is often not balanced with the ability of its users (Hutasuhut & Falahi, 2021). Good mastery of technology allows lecturers to strengthen their pedagogic and professional competence. Thus, lecturer competence occupies a strategic position as a mediating variable that connects the influence of leadership, academic culture, and mastery of technology with lecturer performance. This means that the better the external factors, the higher the lecturer's competence which ultimately has implications for improving performance.

H8: Leadership has a significant effect on lecturer performance through lecturer competence.

H9: Academic culture has a significant effect on lecturer performance through lecturer competence.

H10: Technology mastery has a significant effect on lecturer performance through lecturer competence.

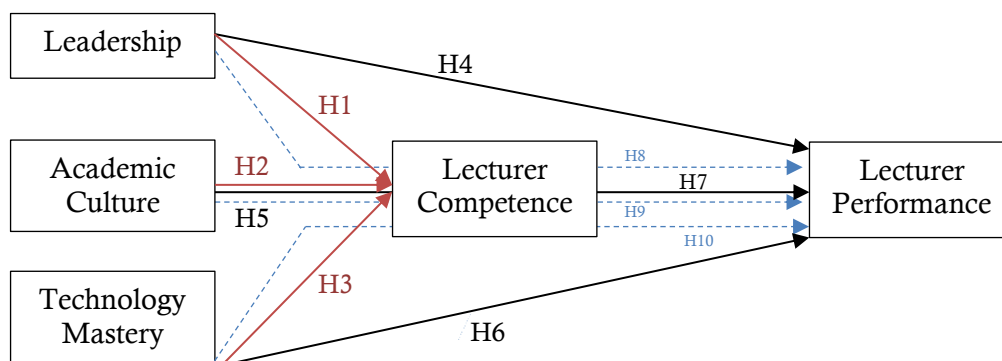


Figure 1. Research Framework.

Figure 1 illustrates the research framework. It was built to explain the relationship between leadership, academic culture, and mastery of technology on lecturer performance, either directly or through lecturer competence as a mediating variable. First, leadership, academic culture, and mastery of technology are estimated to have a positive effect on lecturer competence (H1, H2, H3). Furthermore, these three factors are also suspected to have a direct influence on lecturer performance (H4, H5, H6). The competence of the lecturer itself is seen as an important factor that affects performance (H7). In addition, this study also examines the role of lecturers' competencies as mediators, so that leadership, academic culture, and mastery of technology can affect lecturers' performance indirectly through improving competencies (H8, H9, H10). Thus, this research model provides a comprehensive overview of how organizational and individual factors synergize in improving lecturer performance.

RESEARCH METHODS

The approach used in this research is a quantitative research method that emphasizes testing theories or concepts by measuring variables and analyzing data through statistical procedures to strengthen the hypothesis, ultimately helping to either strengthen existing theories or form new ones. In this study, the sample was drawn based on Probability Sampling with the Proportioned Sampling method or a sampling method based on percentage or proportion calculated based on the PTS area (Siyoto & Sodik, 2015). In this study the sample used adopted by the theory of Kock and Hadaya (2018) and Hair et al. (2021) that in using PLS SEM, the sample should range between 300 and 1000 respondents. Although in PLS, small samples are also allowed (Hair et al., 2011; Sun et al., 2018). The researcher decided to take a sample size of 30% of the population, which is $0.30 \times 1,365 = 409.5$ rounded up to 410 respondents because it has met the requirements for determining the sample (Memon et al., 2020; Nanjundeswaraswamy & Divakar, 2021).

This study employs a quantitative approach using the Partial Least Square (PLS) analysis tool. The validity and reliability of relationships between indicators and latent variables (outer model or measurement model), as well as relationships between variables culminating in hypothesis testing (inner model or structural model), were tested quantitatively based on data obtained from theoretical and empirical studies.

The research model consists of one dependent variable, one mediating variable, and three independent variables. The dependent variable is competence (Y), defined as a set of knowledge, skills, and behaviors that lecturers must possess and master in carrying out professional duties. This variable is measured through four indicators: pedagogical competence, personality competence, professional competence, and social competence. The mediating variable is lecturer performance (Z), which refers to the implementation of lecturers' core responsibilities aligned with the Tridharma of Higher Education. This

includes four measurable aspects: education and teaching, research and scientific work development, community service, and supporting tasks.

The independent variables consist of leadership (X1), academic culture (X2), and technology mastery (X3). Leadership (X1) is defined as the ability to influence others to perform tasks effectively and achieve shared goals, represented by five indicators: charisma, inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence. Academic culture (X2) refers to the institutional lifestyle of a pluralistic scientific community rooted in values of truth and objectivity, reflected through six indicators: academic activity values, academic spirit, service orientation, responsibility, evaluation, and cooperation. Finally, technology mastery (X3) describes the ability to use and manage technology for academic and administrative purposes, measured by four indicators: computer literacy, use of office software (such as word processing, email, and presentation tools), ability to create and edit multimedia content, and ability to use web browsers and search engines. All variables in this study were measured using a Likert scale to capture the respondents' level of agreement toward each statement.

RESULTS

The results section presents findings from the PLS-SEM analysis of data collected from 410 lecturers at private universities in Jambi Province. Respondent demographics reveal a balanced gender distribution, with the majority holding doctoral degrees, aged years, and serving as assistant professors. The measurement model was refined through iterative indicator reduction and validated for reliability and validity, while the structural model tested direct and mediated relationships among leadership, academic culture, technology mastery, competence, and lecturer performance. Key outcomes, including path coefficients, significance levels, and predictive power.

Table 1. Description of Respondents Based on Characteristics

Characteristic	Category	Percentage (%)
Gender	Male	48
	Female	52
Age	21–30 years old	5
	31–40 years old	35
	41–50 years old	46
	>50 years old	14
Education	S2 (Master)	85
	S3 (Doctoral)	15
Functional Position	Professor	1
	Associate Professor	4
	Assistant Professor	80
	Instructor/Lecturer	15

Based on Table 1, it is evident that the respondents comprise 52% men and 48% women. Most respondents have completed doctoral studies (S3), with approximately 85%, while the rest hold a master's degree (S2). Based on age, most respondents fell within the 41-50 year age range, accounting for 46%. Then as many as 80% of respondents were assistant professors.

In the Outer Model measurement, researchers use a combination of Formative Indicators in measuring Lecturer Performance (Z) and Reflective Indicators in the Competence (Y), Leadership (X1), Academic Culture (X2) and Technology Mastery (X3) variables. The outer model measurement scheme can be seen in Figure 2.

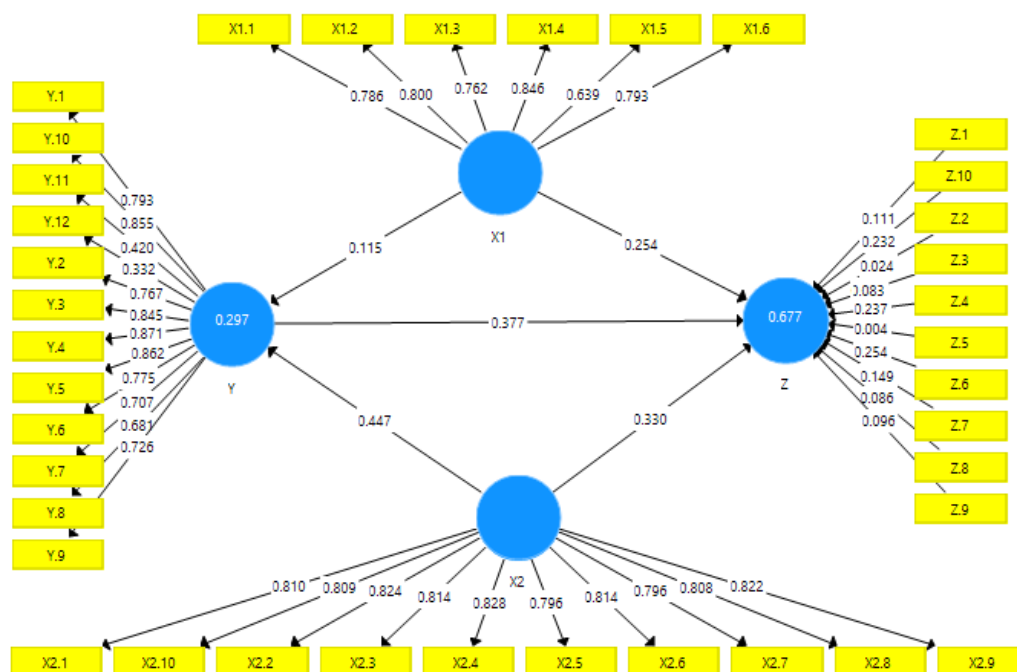


Figure 2. Full Model Results of PLS.3 Bootstrapping

Bootstrapping was used to evaluate the outer model in the Lecturer Performance Variable (Z). The findings demonstrate that Bootstrapping, specifically by examining the T-Statistic value, provides the outer weight value for the indicator, as shown in Table 2.

Table 2. Bootstrapping Results of Regional Government Performance Variables (Z)

Indicator	Outer Weight	Sig.	VIF	Loading Factor	Conclusion
Z.1	0.134	0.000	2.431	0.688	Significant
Z.2	0.018	0.000	2.315	0.669	Not Significant
Z.3	0.118	0.000	2.983	0.804	Significant
Z.4	0.222	0.000	3.125	0.839	Significant
Z.5	0.074	0.000	2.534	0.789	Significant
Z.6	0.284	0.000	2.390	0.838	Significant
Z.7	0.299	0.000	1.626	0.743	Significant
Z.8	0.152	0.000	1.466	0.627	Significant
Z.9	0.134	0.000	2.431	0.688	Significant
Z.10	0.018	0.000	2.315	0.669	Not Significant

Based on the Table 2, indicators Z.1, Z.3, Z.4, Z.5, Z.6, Z.7, Z.8, and Z.9 are significant, as they have outer weight values greater than 0.05 and significance values below 0.05. In contrast, indicators Z.2 and Z.10 have outer weights below 0.05, indicating that they are not significant. According to Garson (2016), the significance of a measurement item's weight can be interpreted as follows: if the weight is significant, the item remains in the model; if the weight is not significant but the loading factor exceeds 0.5, the item is still retained; and if the weight is not significant with a loading factor below 0.5, the indicator should be removed from the model. In this study, although Z.2 and Z.10 are not significant, both have loading factors above 0.5 and VIF values below 5, indicating that they can still be included in the model.

From the results of processing the first loading factor, the value obtained is smaller than 0.6, namely in the indicators Y.5; X1.3; X1.7; X1.8; X2.3; X2.6 and X3.3 so that this indicator is discarded. From the results of processing the second Loading Factor, the value obtained is that there are still two items with values lower than 0.7, namely in items Y.7 and X1.4 so that these items are removed from the model. The third loading factor test obtained results as in Figure 3.

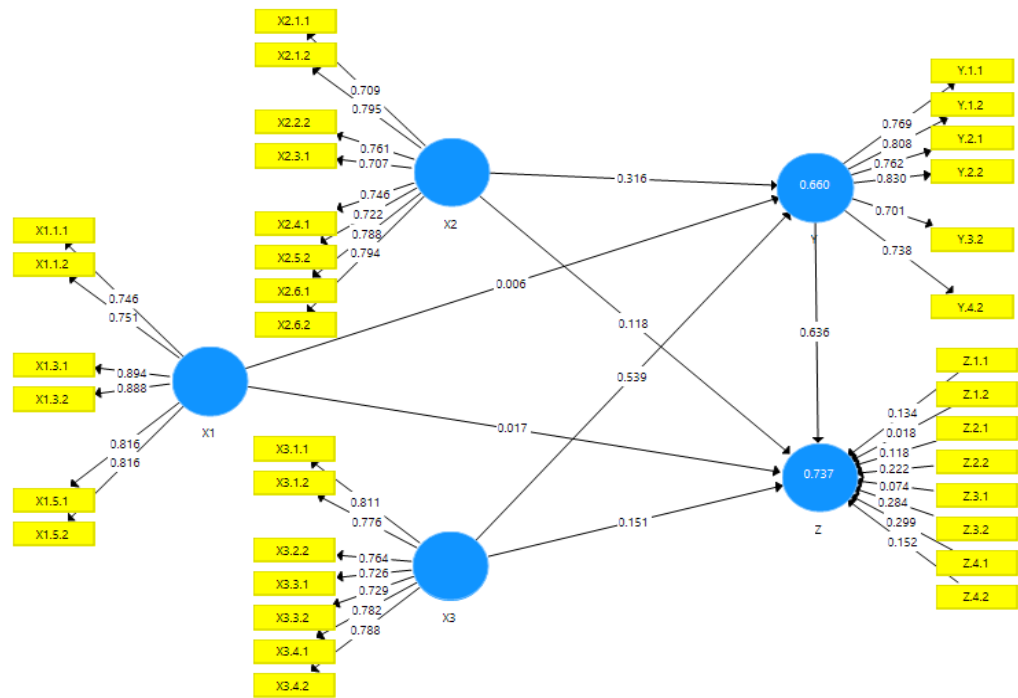


Figure 3. Outer Model Testing

After completing the summarization and reduction stages of indicators, the next step involves conducting a construct reliability test to ensure the consistency and stability of the measurement model. This stage is essential for confirming that the indicators used to represent each construct produce reliable and dependable results across different measurements. By testing construct reliability, researchers can verify that the observed variables consistently reflect the underlying latent constructs they are intended to measure.

Table 3. Reliability of Variables

Variable	Cronbach's Alpha	Rho_A	Composite Reliability	AVE
Leadership (X1)	0.908	0.940	0.925	0.673
Academic Culture (X2)	0.891	0.893	0.913	0.568
Technology Mastery (X3)	0.884	0.885	0.910	0.590
Lecturer Competence (Y)	0.861	0.864	0.897	0.592
Lecturer Performance (Z)		1.000		

Table 3 shows that all variables exhibit strong reliability and validity. Cronbach's Alpha values range from 0.861 (Lecturer Competence) to 0.908 (Leadership), while Composite Reliability values exceed 0.89 for all constructs, indicating good internal consistency. Average Variance Extracted (AVE) values, ranging from 0.568 to 0.673, confirm acceptable convergent validity. Lecturer Performance (Z) achieves a Cronbach's Alpha of 1.000, reflecting perfect reliability.

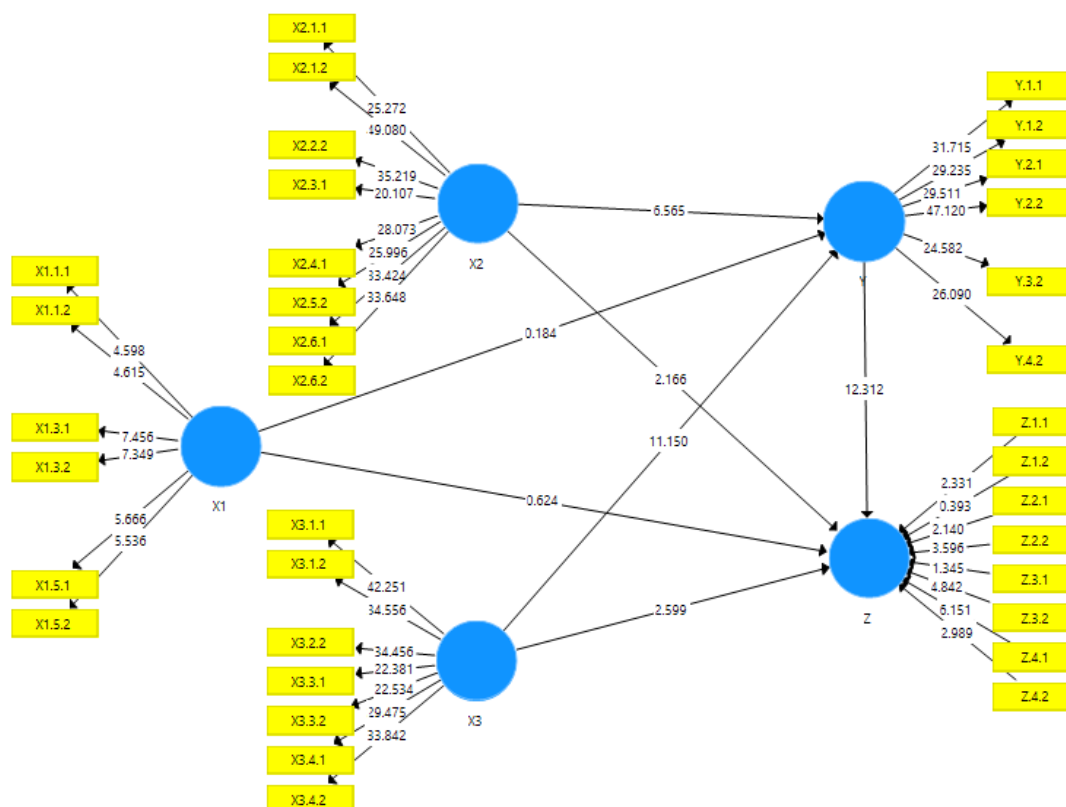


Figure 4. Inner Model

Figure 4 shows the inner model. This model shows that Leadership, Academic Culture, and Technology Mastery play as independent variables that affect Lecturer Competence as a mediator and Lecturer Performance as a dependent variable. The direction of the arrow indicates the relationship between variables along with the value of its path coefficient. The goodness of fit model is used to assess how well endogenous variables can account for the variety of exogenous factors, or, to put it another way, how much exogenous variables contribute to endogenous variables.

Table 4. Predictive Q Square Test Results

Variables	R Square
Lecturer Performance (Z)	0.736
Lecturer Competence (Y)	0.636
$Q^2 = 1 - [(1 - R1^2) (1 - R2^2)]$	
$Q^2 = 1 - [(1 - 0.636) (1 - 0.736)] = 0.903$	

Table 4 shows that the model's ability to forecast the influence of leadership, academic culture, technology mastery, and competence on lecturer performance is 90.3%. According to Table 4, the remaining factors are influenced by other variables not included in this study. The Q2 value is 0.903, or 90.3%.

Table 5. Hypothesis Testing Results

Hypothesis	Original Sample	t-statistics	P-value	Results
H1 Leadership (X1) → Lecturer Competence (Y)	0.006	0.184	0.854	Rejected
H2 Academic Culture (X2) → Lecturer Competence (Y)	0.021	0.629	0.529	Rejected
H3 Technology Mastery (X3) → Lecturer Competence (Y)	0.316	6.565	0.000	Accepted
H4 Leadership (X1) → Lecturer Performance (Z)	0.319	5.307	0.000	Accepted
H5 Academic Culture (X2) → Lecturer Performance (Z)	0.539	11.150	0.000	Accepted

Hypothesis	Original Sample	t-statistics	P-value	Results
H6 Technology Mastery (X3) → Lecturer Performance (Z)	0.493	8.647	0.000	Accepted
H7 Competence (Y) → Lecturer Performance (Z)	0.636	12.312	0.000	Accepted
H8 Leadership (X1) → Lecturer Competence (Y) → Lecturer Performance (Z)	0.004	0.184	0.854	Rejected
H9 Academic Culture (X2) → Lecturer Competence (Y) → Lecturer Performance (Z)	0.201	5.969	0.000	Accepted
H10 Technology Mastery (X3) → Lecturer Competency (Y) → Lecturer Performance (Z)	0.343	8.005	0.000	Accepted

Table 5 shows that the results of data processing show that H1, H2 and H8 are rejected because the statistical values produced are smaller than 1.96. While H3, H4, H5, H6, H7, H9, and H10 are accepted because they have values greater than the t-table value (1.96).

DISCUSSION

Based on the results of the measurement model test SEM-PLS analysis results, it was found that the Leadership variable did not affect lecturer competence and Lecturer Performance. Five indicators contained in the leadership variable, one indicator was declared invalid and unreliable, namely the Intellectual Motivation indicator. However, from the respondents' perceptions in the Total Criteria Respondent (TCR) calculation, the Intellectual Motivation indicator had the highest average value. The consistency of respondents' answers, which had the highest loading factor values, was observed in the Individualized Consideration indicator, specifically the leader's concern for the individual needs of team members, such as lecturers. This indicates that university leaders at PTS in Jambi Province care about the individual needs of lecturers but are unable to provide intellectual motivation, which causes leadership to have no direct or indirect impact on lecturer competence and performance. This research is in line with research conducted by (Sriekaningsih et al., 2019; Putro et al., 2023).

The results of the data analysis indicate that academic culture influences lecturer competence and performance. Six indicators in academic culture, namely academic activity values, academic spirit, service orientation culture, responsibility, assessment, support, and cooperation, are valid and reliable in measuring the loading factors. The measurement of respondents' perceptions is dominated by support and cooperation. It can be inferred that the Academic culture built through academic activities, including values, academic spirit, service orientation, responsibility, assessment, support, and cooperation, can improve lecturer competence and performance. This study aligns with the research conducted by Mulyati (2017), Sukmawati (2017), Martini et al. (2020), and Nainggolan et al. (2023).

The results of the model test, mastery of technology influences the competence and performance of lecturers. As explained about the variable of mastery of technology which consists of four indicators, namely the ability to use computers, the ability to use office software, the ability to create and edit images, audio, and video and the ability to use web browsers and internet search engines, in the loading factor measurement, the results obtained all indicators were able to reflect the measurements. Meanwhile, according to the respondents' perceptions, the ability to use web browsers and internet search engines has the highest average value. This is because, in the era of the industrial revolution 4.0, all needs are met by the internet, including the academic needs of lecturers, such as searching for teaching materials, lectures, scientific publications, and research references, as well as other academic requirements. Therefore, mastering technology has become essential for lecturers to enhance their competence and performance. This research is in line with research conducted by Ridhawati (2017), Wihara (2019), Setyadi and Taruk (2019), Shofia et al. (2021), and Hutasuhut and Falahi (2021).

Based on the results of the measurement model test, competence has a significant influence on lecturer performance. As explained about the competence variable supported

by four indicators, namely pedagogical competence, personality competence, professional competence, and social competence, where all indicators are declared valid and reliable. Respondents' perceptions of the competence variable yielded the highest average value on the personality competence indicator, as well as on the measurement of the highest indicator loading factor, with items focusing on lecturers being role models in terms of ethics and behavior for students. The value of the loading factor has significantly enhanced lecturer competence, where lecturers are considered to have met the criteria in lecturer competence on all indicators, thereby improving lecturer performance. This study supports research by Wibowo (2020), Fajrizal et al. (2022), and Natania et al. (2023).

CONCLUSION

Based on the analysis of ten proposed hypotheses, three were rejected: the direct effects of leadership on lecturer competence and performance, as well as its indirect effect on performance through competence. The remaining seven hypotheses were supported, revealing significant positive relationships where academic culture and technology mastery directly enhance both lecturer competence and performance, while competence itself exerts the strongest direct influence on performance. Academic culture and technology mastery also indirectly improve performance by strengthening competence, underscoring competence as the central mediator in the model.

These findings imply that universities should prioritize developing lecturer competence through targeted training in pedagogy, personality, professionalism, and social skills, alongside fostering a supportive academic culture emphasizing cooperation, responsibility, and service orientation, and promoting technology mastery in tools like internet search and multimedia editing. However, the study is limited to private universities in Jambi Province with a sample of 410 lecturers, potentially reducing generalizability to public institutions or other regions. Future research could expand to the entire LLDIKTI region X for greater diversity, incorporate additional variables like workload or motivation to explain the insignificant leadership effects, and explore qualitative approaches to deepen insights into why leadership fails to impact competence and performance.

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