

## The Decentralization and Leadership on Lecturer Academic Performance in Higher Education

Suryanef<sup>1</sup>, Al Rafni<sup>2</sup>, Alfi Husni Fansurya<sup>3</sup>, Silvi Juwita<sup>4</sup> & Cici Nur Azizah<sup>5</sup>

### Abstract

The academic success of college teachers is crucial for fostering a smart generation in the future. This study examines the interconnectedness of decentralization, leadership, the academic environment, student satisfaction with academic policies, and academic performance. The study also explores the impact of academic self-efficacy as a moderating variable on the relationship between satisfaction with school rules and academic achievement. Additionally, it delves into the conditions of the academic environment, academic performance, and satisfaction with academic policies. The effect of leadership-mediated decentralization policy on academic performance and satisfaction with academic policies remains unclear in this study. A total of 283 college-level employees participated in the survey for this study. The data were analyzed using Structural Equation Modelling, with the analysis conducted using Smart PLS version 4. The findings of the study revealed that the hypotheses proposed in this study had a significant impact on academic performance. This study shows how decentralized leadership and policies benefit higher education teachers. Collaboration between subordinates and superiors is crucial for establishing a conducive working environment and enhancing productivity in higher education. It emphasizes the importance of stakeholders in higher education creating policies that incentivize academics to actively engage in all facets of the institution, including decision-making.

**Keywords:** *Academic environment, academic self-efficacy, academic performance, satisfaction of academic policy.*

### Introduction

Education goes beyond individual development; it plays a crucial role in the advancement of society and the entire country. The effective management of human resources is integral to an organization's ability to achieve its objectives. Employing sound human resource management techniques can aid a company in acquiring and retaining a highly skilled and well-suited workforce aligned with its goals and objectives. University lecturers are expected to enhance their capabilities

<sup>1</sup> Dr., M.Si, Universitas Negeri Padang, Indonesia, E-mail: [suryanef@fis.unp.ac.id](mailto:suryanef@fis.unp.ac.id)

<sup>2</sup> Dr., Universitas Negeri Padang, Indonesia, Email: [alrafni@fis.unp.ac.id](mailto:alrafni@fis.unp.ac.id)

<sup>3</sup> S.E., M.Sc, Universitas Negeri Padang, Indonesia. Email: [alfifansurya@fpp.unp.ac.id](mailto:alfifansurya@fpp.unp.ac.id)

<sup>4</sup> S.Psi., M.Psi, Universitas Negeri Padang, Indonesia. Email: [silvijuwita@fpk.unp.ac.id](mailto:silvijuwita@fpk.unp.ac.id)

<sup>5</sup> M.Pd, Universitas Negeri Padang, Indonesia. Email: [cicinurazizah@fis.unp.ac.id](mailto:cicinurazizah@fis.unp.ac.id)

to effectively address challenges and solve problems, especially those related to individual or group performance and the successful execution of tasks and responsibilities (Hazriyanto & Ibrahim, 2019).

The main goal of education is to assist individuals in developing into highly skilled professionals in their chosen fields. Companies have to make sure their workers have the skills and knowledge they need to stay competitive in a job market that is always changing and to make a positive difference in the world. In their 2021 study, Chung et al. stress how important teachers are to a school's higher education system. How well teachers do their jobs is very important for turning out qualified workers in professional higher education. It is very important to bring up the working conditions of university faculty and staff because it can have a big effect on how well they do their jobs. Today, teaching and research are the main activities at universities. This shows how important it is to make workplaces that are good for both academics and professionals. It is very important to give academic staff comfortable office spaces and easy access to well-equipped libraries, labs, and other amenities so they can do their jobs well. The study by Oyewole et al. (2019) discovered that the success of academic workers is strongly connected to having the right amount and quality of necessary elements at work. This is always true, no matter how good the parts are. Higher education institutions must put the health and professional growth of their faculty members first if they want to create a thriving academic environment that encourages good teaching, scholarly pursuits, and research. Creating good working conditions and giving faculty members the tools, they need to do their jobs well is the first step toward a commitment to academic excellence. Colleges and universities should actively support and encourage the academic work of their faculty. This means giving people lots of chances to do research, making sure they can easily access the resources they need, and encouraging a culture that values scholarly inquiry highly. By creating a lively research environment, institutions can improve the quality of instruction and help knowledge growth.

In order to adequately carry out their academic duties, lecturers must possess specific prerequisites. The identified attributes encompass several facets, including the implementation of disciplinary measures in teaching and other associated duties, the utilization of inventive teaching approaches, active involvement and collaboration with all members of the campus community, demonstration of leadership traits as a means of motivating students, display of positive dispositions, adherence to honesty and objectivity in offering guidance, and acknowledgment of the responsibility

associated with assigned tasks (Tuan et al., 2022). In order to enhance the overall caliber of the institution, higher education institutions must prioritize this matter (Olo et al., 2021). Tang (2020) asserts that a lecturer's performance is intricately linked to the tasks delegated to them, which are influenced by their skills, experience, level of commitment, and time management. Performance is a clear indication of the extent of effort an individual invests in executing their designated duties. The assessment of lecturer performance is deemed satisfactory only when specific criteria are fulfilled. The specified criteria encompass exhibiting a profound level of allegiance and commitment to teaching responsibilities, along with possessing a comprehensive comprehension of educational material and engaging actively in its progression.

In the realm of higher education, it is imperative to investigate the ways in which leadership and divisions influence the teaching abilities of lecturers. Through the conduct of this research, to answer this question, are educational institutions such as colleges and universities likely to influence changes in policies, leadership initiatives, and pedagogical practices? How does faculty satisfaction with regulations impact overall academic performance? And what factors influence satisfaction with regulation? By gaining a deeper understanding of the complex dynamics that exist between these components, it may be possible to improve the educational experience for both students and teachers and achieve better outcomes for both groups. In addition to providing valuable insights in this area, this research highlights the potential benefits that can be gained from the incorporation of autonomous leadership into colleges and universities.

## **Literature Review**

### **Academic Performance**

As posited by Vijande & Sanchez (2017), the attainment of performance indicators remains inherently interconnected with the procedural aspects of activities, the transformation of inputs into outputs, and the orchestration of instructional activities deemed substantial and influential in the context of accomplishment. Educators engage in interactions conducive to the facilitation of knowledge transmission, exchange, and integration, thereby nurturing institutional intelligence and institutional knowledge. As emphasized by Williamson et al. (2020), these outcomes play a pivotal role in cultivating a culture of learning. The evaluation of academic performance is of paramount importance, not solely for the improvement of university administration but also for the facilitation of services associated with the advancement of knowledge (Lee et al., 2016). Bani-

Melhem et al. (2018) claim that a workplace environment fostering enthusiasm for professional tasks ranks among the foremost catalysts for lecturers to cultivate innovation within the organizational framework. A lecturer's commendable individual performance signifies the fulfillment of job-related responsibilities at a level aligned with the expectations of the university office. As posited by Asbari et al. (2019), knowledge-based organizations play a pivotal role in promoting and fostering the innovation competencies and organizational performance of educators. Furthermore, if a culture of learning, which generates added value, is rooted in innovation within higher education, then such a culture will not only persist but also thrive (Williamson et al., 2020).

### **Decentralization**

According to Hanson (1998), decentralization is the process of shifting power, duties, and tasks from higher organizational levels to lower levels or even from one organization to another. Educational decentralization, school autonomy, teacher participation, and family interaction are among the delegation strategies frequently discussed in academic literature (Maslowski et al., 2007). Within the context of school-based management, school autonomy pertains to the delegation of decision-making authority and responsibilities to school administrators, as articulated by Naper (2010). In parallel, teacher involvement, as elucidated by Goktürk & Mueller (2010), entails empowering teachers and involving them in the governance and management of educational institutions. The delegation of authority to parents to influence school administration is referred to as parental involvement (Shen et al., 2014). Many concur that decentralization is a vital concept in development policy, as it has the potential to enhance outcomes and provide individuals with increased opportunities to participate in decision-making processes (Arkorful et al., 2021). Enhanced accountability and responsiveness may be achieved through the process of decentralization, characterized by the devolution of decision-making authority from upper levels (Chikoko, 2009). Alternatively, another interpretation posits equal participation of both superiors and subordinates in decision-making processes (Gessler & Ashmawy, 2016). In their study, Goel et al. (2017) introduce a novel perspective in addressing the impact of decentralization on organizations, focusing on the relationship between power and the top executive. For the successful implementation of decentralization, participatory leadership is essential, entailing a

willingness to collaborate with diverse groups. Furthermore, it necessitates a civic capacity within communities where various stakeholders are engaged.

H1: Decentralization has impact on leadership

Evaluations of educational system decentralization incorporate quantitative analyses of extensive data at the subnational, national, or cross-country levels. The evaluations can lead to different organizational frameworks of decentralization, depending on the perspective of the evaluator (Pinheiro & Nordstrand, 2017). These evaluations have not considered the potential existence of diverse assumptions regarding decentralization mechanisms, which can yield results that are applicable across various regulatory levels (Mok & Han, 2017). In higher education, the existence of multiple hierarchical levels across different disciplines can lead to differences in decision-making processes aimed at creating teaching environments that facilitate effective learning.

H2: Decentralization may have an impact on academic environmental conditions

The question of whether the fragments that emerge from decentralized regulations can be extrapolated to alternative contexts is raised by a centralized education system that restricts the choices available to students (Song & Meier, 2018). According to Hirschman (1970), the fulfillment of engaged citizenship is made possible within the context of robust regulatory emphasis on student accountability. When examining issues that are associated with public administration and politics, it is important to place a strong emphasis on the political environment (Bernstein, 1990). Therefore, when policies are formulated in a decentralized manner, there is a greater likelihood of aligning with policy requisites and fostering contentment among policy members or subordinates who comply with the policies.

H3: Decentralization has impact on satisfaction of academic policy

## **Leadership**

The concept of leadership carries substantial significance in the domain of organizational theory and the literature on organizational management. The discourse surrounding this subject has encompassed diverse facets, such as individual attributes and personal life considerations, organizational contexts, leader-follower interactions, and both formal and informal entanglements with power dynamics (Shen et al., 2021). The inclination of senior academics to align themselves with the institutional framework of their university is frequently regarded as the primary

determinant influencing their conduct as intellectual leaders (Uslu & Welch, 2018). Notably, the institutional resources and support mechanisms within the university exert a pivotal influence in molding academics' organizational perspectives, as highlighted by Campbell and O'Meara (2014). University administrators possessing robust leadership competencies will have the capacity to persuade the prevailing majority of instructors, historically resistant to technology-enhanced instruction, to engage in the workshops (Fernandez & Shaw, 2020). Doraiswamy (2012) contends that, in the pursuit of fostering a thriving learning and working milieu in higher education, leaders must exhibit qualities of empathy, compassion, and flexibility.

H4: Leadership may have an impact on academic environmental conditions

Advani and Abbas (2015) and other scholars have conducted extensive research in recent years, specifically examining the impact of transformational and transactional leadership styles on employee productivity. Hall et al. (2008) define transformational leadership as the capacity to initiate and facilitate change among followers. Prior research conducted by Al-Amin (2017) and Mangkunegara & Miftahuddin (2016) has elucidated the significant influence of transformational leadership on organizational performance. Torres (2022) asserts that a vital element of successful leadership is the careful evaluation of the potential impact that decisions may have on team members. The effectiveness of a capable leader's success is gauged by the contentment of their subordinates with the tasks and levels of power assigned to them within their specific academic domains.

H5: Leadership has impact on satisfaction of academic policy

### **Academic Environmental Condition**

The working conditions in academia pose a significant concern, particularly when deficient professional development for existing educators compounds the challenge of recruiting and retaining qualified new teachers (Ingersoll, 2001). The situation may deteriorate further if a substantial proportion of newly hired professors express dissatisfaction with their professional standing and working milieu (Ingersoll, 2017). Ronfeldt et al. (2013) posit that the recruitment and training of new teachers incur substantial expenses. These financial outlays divert resources that could otherwise be allocated to enhance the working conditions of educators, a critical factor in retaining high-quality teachers (Borman & Dowling, 2008). Consequently, policy responses

addressing the teacher shortage prioritize teacher retention and measures to improve their working conditions, thereby bolstering the quality of educators (Ingersoll, 2017). As posited by Kioupi & Voulvoulis (2019), quality education hinges on the fulfillment of societal education-related expectations, with tangible outcomes being observable. Individuals and societies attain their maximum potential through diverse educational modalities encompassing formal, informal, and non-formal learning. The realization of this potential necessitates the provision of educational support (Laurie et al., 2016). Numerous studies (Kinzl et al., 2005; Newsham et al., 2009) have demonstrated the reciprocal relationship between employee happiness and the overall quality of a university. Similarly, multiple investigations (Chang & Lee, 2007; Mansoor & Tassoor, 2010) have identified a positive association between a conducive work environment and higher levels of job satisfaction among staff. The perspectives and behaviors of employees undergo influence in response to an organizational culture transformation. In accordance with the findings of Huang and Chi (2004), employee contentment with the prevailing workplace culture leads to heightened commitment to their occupational responsibilities, consequently fostering enhanced productivity.

H6: Academic environmental conditions has impact on satisfaction with academic policy.

### **Satisfaction with Academic Policy**

According to Tian et al. (2016), meeting the fundamental psychological needs of college students can contribute to improving group life. An essential factor for the success of teaching and learning methods in higher education is ensuring that students are happy and have a positive educational experience (Sampson et al., 2010). Student happiness is contingent upon various factors, including their proficiency in utilizing technology, engagement in social and professional activities, access to supportive resources such as academic advising, and the design of their coursework (Allen et al., 2002). Factors contributing to student satisfaction with their learning environment encompass active learning, academic rigor, student-teacher interaction, practical application of acquired knowledge, and the attainment of learning objectives (Moore, 2009). Thanh and Viet (2016) observed that the employment of efficacious learning strategies correlates with improved outcomes and academic success. Badri et al. (2014) establish a correlation between fulfilling basic needs and academic performance. The quality of instructors and the institution's service quality are pivotal determinants of educational excellence. Sunarsi et al. (2020) emphasize the symbiotic relationship between quality education and proficient educators, suggesting that improvement in one facet

necessitates enhancement in the other. Meeting basic psychological needs affects academic success, but neglecting specific needs has consequences (Wang et al., 2019). Investigating teachers' needs within the classroom is logical, as teachers spend substantial time on their work there, contributing to student learning (Tian et al., 2014; Xu & Minca, 2008). Academic policy satisfaction is believed to affect university teachers' job performance.

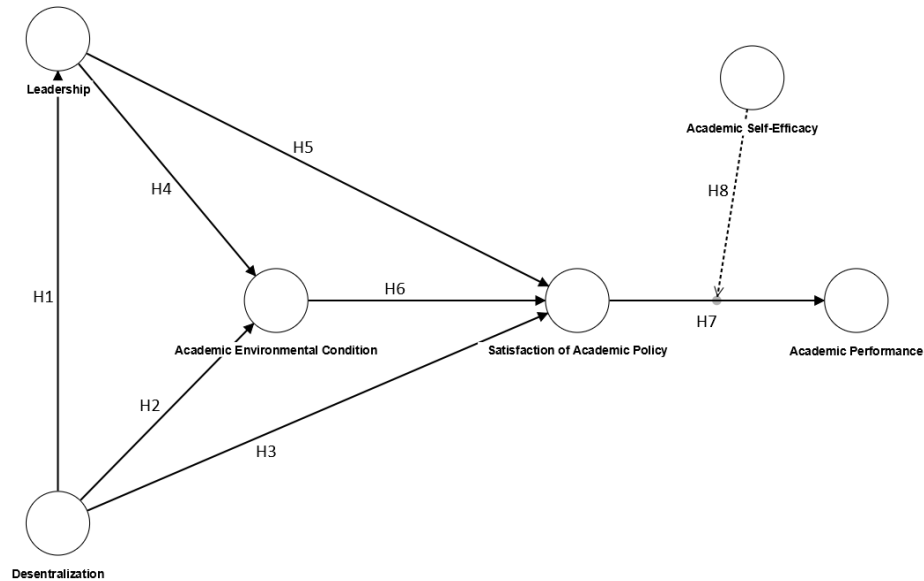
H7: Satisfaction with academic policy has impact on academic performance

### **Academic Self-Efficacy**

"Academic self-efficacy" pertains to a student's confidence in their capacity to achieve academic objectives. As elucidated by Bandura (1997), it signifies "the belief that one possesses the necessary knowledge, skills, and capabilities to formulate and execute strategies leading to a desired outcome." Academic self-efficacy entails a strong belief in one's capability to perform effectively within a specific academic context (Schunk, 1991). According to Brown et al. (2001), individuals with heightened self-efficacy are more adept at seeking information and deriving greater benefits from the information they acquire. A certain degree of correlation exists between self-efficacy and academic achievement, although it is relatively modest. As suggested by Robbins et al. (2004), this technique serves as a means to establish connections among groups of individuals across different educational levels, commencing from elementary school and extending through college. Per the findings of Honicke & Broadbent (2016), the employment of effort management, deep processing strategies, and goal orientation can either impede or facilitate the relationship between self-efficacy and academic performance. Hence, the principal hypothesis of this study posits that academic self-efficacy functions as a determining factor in the presence or absence of a link between satisfaction with school regulations and academic performance.

H8: Academic self-efficacy as moderating has impact on satisfaction of academic policy and academic performance.





*Figure 1. Research Model*

## Method

### Design

For the purpose of this study, a quantitative research design approach was utilized in order to conduct the analysis of the study data. According to Showkat and Parveen (2017), this decision was made because the quantitative method has the capacity to investigate the interconnections among all of the factors that are being investigated in a comprehensive manner. According to Universitas Negeri Padang Personnel Information System (2023), the population of the study consisted of the teachers and staff members who were employed at Universitas Negeri Padang is 2174 . Because of the large size of the population, the utilization of the convenience sampling method. According to Zikmund (2000), one of the most important aspects of any study is the selection of an appropriate sample size. This is because an excessively small group may not be representative of the population and may not produce findings that are of any value.

### Sample

In contrast, taking a sample from a population that is significantly larger than the one being sampled can be inefficient in terms of both time and resources. With regard to this particular investigation, the Roscoe criterion will be utilized, and the entire population from which the sample was derived will be taken into consideration. This will be done in accordance with the

criteria that Krejcie and Morgan (1970) established. Roscoe (1975) suggests that the ideal number of people in a group is between thirty and five hundred. There is a possibility of a Type II error occurring when the sample size is greater than 500, which leads to a weaker connection between the data from the sample and the characteristics of the actual population. Convenience sampling was used in this study, is the collection of information from members of the population who agree to provide the information. That way, anyone who agrees to provide the information needed by the researcher, can be used as a sample in this study if the respondent has the willingness to provide information. During the course of this research project, a total of 283 individuals took part.

### **Instrument**

The majority of measurement items in this study were adapted from prior research and tailored to the specific context of this investigation. Accordingly, a Likert scale was employed to gauge the constructs. Each item was rated on a five-point scale, with one indicating "strongly disagree" and five indicating "strongly agree". The total number of instruments used in this study is 21.

### *Academic Performance*

To assess academic performance, this study incorporated five items from a research conducted by Tuan et al. (2022), who had originally measured productivity at Vietnam National University. In recent times, statements like "the dissemination of the results of my research to the academic community" have been on the rise, which can be construed as indicative of enhancements in the university workforce's performance. A response of 5 indicates a favorable perception of improved performance, whereas a response of 1 signifies a lack of perceived improvement in performance.

### *Decentralization*

To gauge the decentralization variable in this study, four items were adopted from prior research conducted by Tuan et al. (2022), who explored research productivity levels among university lecturers. Statements such as "Lecturers are encouraged to participate in the research policy development process" can be utilized to characterize decentralization. Respondents indicating a response of 5 would denote a perception of decentralization.

### *Leadership*

In this study, the leadership variable was assessed by incorporating three items sourced from previous research conducted by Tuan et al. (2022), who investigated research productivity among university lecturers. Statements such as "University leaders have a participative management style in terms of organizing and motivating lecturers to work" serve as indicators of a participative management style. This pattern may be construed as an enhancement in the performance of university personnel. Respondents' selection of a rating of 5 implies a positive perception of effective leadership, whereas a rating of 1 signifies a negative perception of leadership quality.

### *Academic Environmental Condition*

To assess this variable, the study integrated two items from prior research by Cleveland et al. (2012). Statements like "The university provides support to lecturers encountering technical and administrative challenges related to their research productivity" were employed. When respondents choose a rating of 5, it indicates that they perceive favorable environmental conditions and are content with these circumstances. In contrast, a rating of 1 signifies that the respondent does not perceive a supportive environment and expresses dissatisfaction.

### *Satisfaction of Academic Policy*

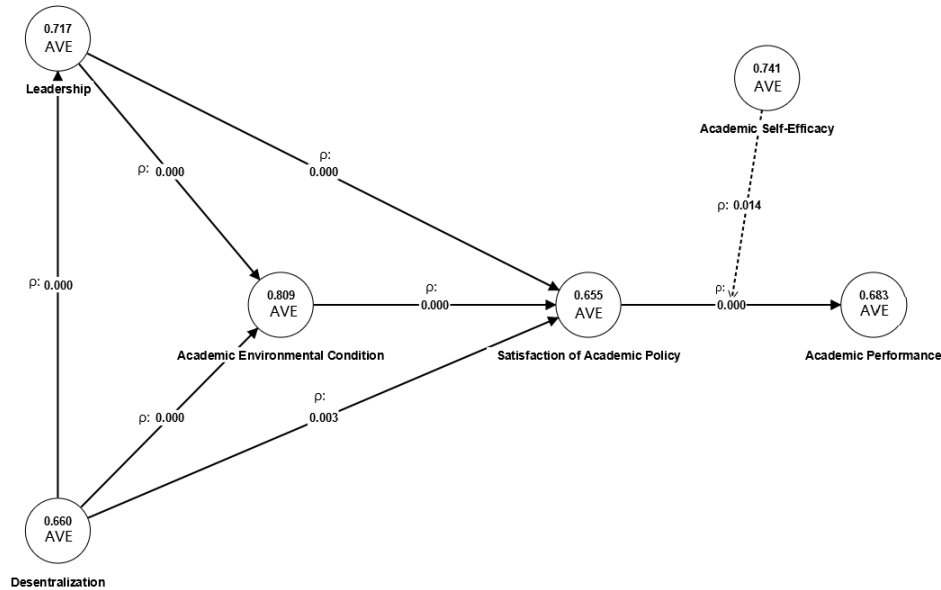
To gauge this variable, four items were adapted from prior research conducted by Hussein & Abdul (2012), who examined management policies and their influence on the satisfaction of academic staff. Statements such as "The university has policies that can enhance performance in fulfilling responsibilities" reflect a participative management style. This inclination may be interpreted as an enhancement in the performance of university employees. Respondents choosing option 5 indicated that they perceived academic support policies as favorable.

### *Academic Self-Efficacy*

For the academic self-efficacy variable, three items were selected from Schwarzer and Jerusalem's research (1995) to assess self-efficacy in this study. An example item is, "I believe I can effectively handle unexpected academic situations (preparing assignments, projects, presentations, administrative tasks, etc.)." A response of 5 indicates that the respondent has good academic self-efficacy; a response of 1 indicates that the respondent does not have good academic self-efficacy.

**Table 1***Instrument*

Variable	Instrument
Academic Performance	AP1 The number of my scientific works in the form of international journals has tended to increase in recent years
	AP2 The amount of research I have found in recent years has tended to increase
	AP3 The number of publications in proceedings that I have found in recent years tends to increase
	AP4 The number of my books published by ISBN publishers in recent years has tended to increase
	AP5 The dissemination of my research results to the academic community tends to increase these days.
Decentralization	D1 University policies can build autonomy to encourage and motivate Lecturers to research
	D2 Decentralized policies in the field of research spur the productivity of lecturers in researching
	D3 Service facilities such as digital libraries and consultation rooms are provided by the University to research centers.
	D4 Lecturers are given an account to access the required scientific documents for free
Leadership	L1 University leaders have a variety of progressive policies such as special incentives in motivating lecturers to produce scientific work.
	L2 University leadership has a participative management style in terms of managing and motivating lecturers to work.
	L3 Leaders have the ability to fairly allocate research funds
Academic Environmental Condition	AEC1 Environmental conditions build a culture that values research achievements and scientific work
	AEC2 The university supports and encourages the establishment of research groups or centers
Satisfaction of Academic Policy	SAP1 H-Index as a credible index recognized by the University to evaluate the research productivity of Lecturers
	SAP2 Lecturers are given the freedom to conduct their research projects
	SAP3 Lecturers are supported by the University to publish their research results
	SAP4 The University organizes international events to appreciate the research performance of lecturers
Academic Self-Efficacy	ASE1 I believe I can effectively handle unexpected academic situations (preparing assignments, projects, presentations, administrative tasks etc).
	ASE2 Because I trust my coping skills, I can maintain my composure when facing academic challenges.
	ASE3 Whatever problems I encounter academically, I am confident that I can overcome them.



*Figure 2. Bootstrapping results*

## Validation

The study utilized the partial least squares structural equation modeling (PLS-SEM) approach, commonly known as the standard algorithm for estimating PLS bootstrapping components (factors). This approach involves resampling techniques to perform measurements. To assess measurement quality, standardized item loadings, Average Variance Extracted (AVE), Heterotrait-Monotrait Ratio of Correlations (HTMT), Composite Reliability, and Cronbach's alpha were examined for all constructs. As presented in Table 2, all Composite Reliability and Cronbach's alpha values exceed the recommended threshold of 0.70 (Hair et al., 2012). The data also demonstrate convergent validity, as all factor loadings for each indicator on their respective latent constructs exceed 0.60, and the AVE for each construct surpasses 0.50 (Hair et al., 2012).

**Table 2**

*Loadings, Cronbach's alpha, composite reliability & significance levels*

Variable	Item	Loadings	Cronbach's alpha	CR	AVE
Academic Performance	AP1	0.732	0.883	0.890	0.680
	AP2	0.868			
	AP3	0.876			
	AP4	0.869			
	AP5	0.771			
Decentralization	D1	0.789	0.828	0.830	0.660
	D2	0.847			
	D3	0.792			
	D4	0.817			
Leadership	L1	0.837	0.803	0.810	0.720
	L2	0.846			
	L3	0.854			
Academic Environmental Condition	AEC1	0.882	0.765	0.780	0.810
	AEC2	0.916			
Satisfaction with Academic Policy	SAP1	0.812	0.824	0.830	0.660
	SAP2	0.756			
	SAP3	0.843			
	SAP4	0.819			
Academic Self-Efficacy	ASE1	0.853	0.828	0.850	0.740
	ASE2	0.880			
	ASE3	0.847			

**Table 3**

*Heterotrait-Monotrait Ratio of Correlations (HTMT)*

	AEC	AP	ASE	D	L	SAP	ASE X SAP
AEC							
AP	0.616						
ASE	0.575	0.501					
D	0.796	0.554	0.503				
L	0.810	0.475	0.568	0.609			
SAP	0.824	0.556	0.698	0.654	0.775		
ASE X							
SAP	0.276	0.142	0.373	0.282	0.209	0.476	

To ensure discriminant validity between two reflective constructs, in line with Henseler et al. (2015), we computed the Heterotrait-Monotrait Ratio (HTMT), where an HTMT value less than 0.9 is typically recommended. However, the results in our study varied, ranging from 0.14 to 0.82.

### **Data Collection**

Burns and Grove (2003) suggest that a comprehensive research documentation process encompasses elements such as the research setting, the research population and its constituents, study limitations, as well as the data collection and analysis methodologies. For this project, we used online platforms to distribute questionnaires to the population. We distributed the questionnaire web link via email and social media applications such as WhatsApp to colleagues and coworkers. The participants accessed the pre-generated web link to access and complete the online survey.

### **Data Analysis**

The data analysis step in this study is to use SPSS to conduct a normality test, to see if the distribution of the questionnaire is normally distributed, then test Multicollinearity, Autocorrelation, Heteroscedasticity and Scatterplot. Then after getting the results from the analysis using SPSS, where the results obtained are results that are feasible to continue, data analysis is carried out using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. SmartPLS version 4 software was used for this analysis. Partial Least Squares (PLS) analysis is used to overcome the constraints associated with regression analysis using the Ordinary Least Square (OLS) method, including limited data size, missing values, atypical data distribution, and multicollinearity. Reliability assessment of the metric, the Fornell-Larcker criterion and structural models was conducted using SPSS. This study started with the measurement model to validate and ensure the reliability of the research constructs. Following the approach outlined by Anderson and Gerbing (1988). Convergent validity was assessed through standardized item loadings and average variance extraction (AVE) using SmartPLS. Discriminant and criterion validity were evaluated using the heterotrait-monotrait correlation ratio (HTMT). Internal consistency of the research components was assessed through Composite Reliability (CR) and Cronbach's alpha. In the second stage, to assess the reliability of interdisciplinary connections, 5,000 bootstrap samples were generated

## Findings

### Assumption Test

#### Normality

As Ghozali (2016), the normality test is conducted to ascertain whether the residuals or confounding variables of the regression model follow a normal distribution. An ideal regression model exhibits residuals that follow a normal distribution. Normality tests are not required for every variable, but only for the residual values. Typically, normality testing is conducted for each variable in a regression model. However, it is important to note that while normality is not mandatory for the research variables, it is required for the residual values in regression models. An ideal regression model exhibits a normal or nearly normal distribution. In this study, the normality of the residuals is assessed using the Kolmogorov-Smirnov test. If the probability value is greater than 0.05, it indicates that the data conforms to a normal distribution.

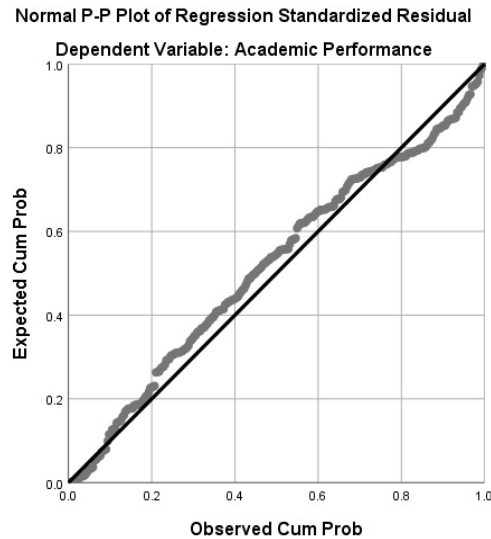
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		283
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	3.19950827
Most Extreme Differences	Absolute	.065
	Positive	.059
	Negative	-.065
Test Statistic		.065
Asymp. Sig. (2-tailed)		.005 <sup>c</sup>
a. Test distribution is Normal. b. Calculated from data. c. Lilliefors Significance Correction.		

**Figure 3. Normality Test Output**

Figure 3 presents the results of the One-Sample Kolmogorov-Smirnov Test, with a test statistic value of 0.05. This result suggests that the observed data follows a normal distribution.

Normality testing in this study was conducted using graphical analysis. When the residuals exhibit a normal distribution, the line representing the observed data will closely align with the observed data. Figure 4 illustrates the normal distribution of the results, as depicted in the P-Plot graph.





*Figure 4. Normality Test (Graphic)*

### **Multicollinearity**

The assessment of multicollinearity in processed data involves three components: examining the correlation matrix, calculating the variance inflation factor (VIF), and assessing tolerance values. The multicollinearity test is conducted to determine whether there is a correlation between independent variables in a regression model. The purpose of multicollinearity testing is to ascertain whether the regression model has identified a correlation among the independent variables, also known as free variables. Consequently, due to the large standard error, the t-count will be smaller than the t-table when testing the coefficient. This suggests that there is no direct correlation between the independent variable and the dependent variable, or between the independent variable and the influenced dependent variable. The ability to perceive the correlation between variables is crucial in this study. None of the independent variables exhibit a correlation of 95% or higher, as indicated by tolerance values exceeding 0.01, suggesting the absence of a significant relationship among them. The VIF analysis results reveal that none of the independent variables has a Variance Inflation Factor (VIF) value exceeding 10. This implies that there are no highly significant relationships among the variables. The results from the regression analysis, as presented in Table 4, also confirm the absence of multicollinearity among the independent variables.

**Table 4**

*Multicollinearity, Autocorrelation, Heteroscedasticity Test*

Model	Multicollinearity		Autocorrelation	Heteroscedasticity		Results
	Tolerance	VIF	DW	T	Sig.	
1						No multicollinearity
ASE	.57	1.73				
SAP	.34	2.91				
AEC	.28	3.51				
D	.46	2.15				
L	.42	2.37				
2						No autocorrelation
Durbin-Watson			1,79			
3						No heteroscedasticity
Glejser Test						
ASE				-.57	.11	
SAP				1.71	.08	
AEC				-.47	.63	
D				.31	.75	
L				-.46	.63	

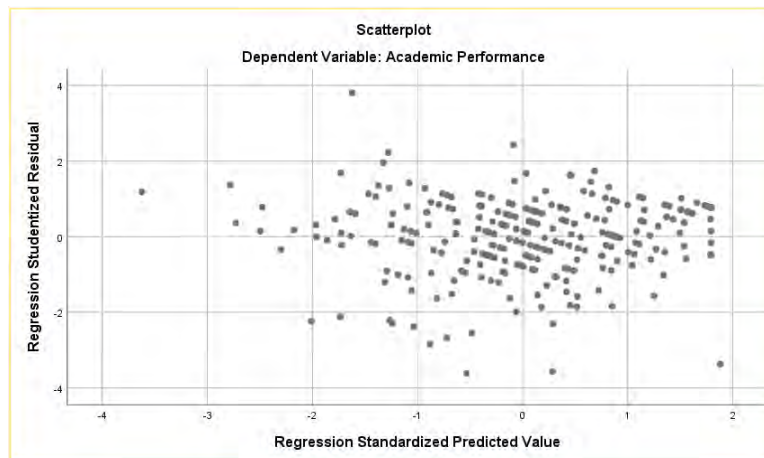
Applying regression analysis techniques can enhance the reliability of the Glejser test. In the present circumstances, the independent variable is associated with the absolute magnitude of the residual. This attribute enhances the test's ability to identify meaningful correlations, thus enhancing its usefulness. The observed values of each variable used in this study exceeded the predetermined significance level of 0.05 (Table 4).

The autocorrelation test is utilized to investigate whether there is a correlation between the errors observed at time "t" and those observed at time "t-1" within a linear regression model. This examination aims to determine whether such a correlation exists, and its primary objective is to identify potential sources of bias within the data. The absence of autocorrelation in the dataset is a critical factor in maintaining the reliability of a regression model. When such an issue arises, it is often referred to as an autocorrelation problem. According to the Durbin-Watson table, the Durbin-Watson statistic for the lower limit (dL) is 1.782, and for the upper limit (dU) it is 1.825. Both of these values can be found within the "magnitude" column. These two distinct values can indeed

be found in the column labeled "magnitude." To determine the extent to which the value of 4-dU is less than the value of 4-dL, you can subtract 1.825 from 4.1782, resulting in a value of 2.175. This suggests a significant absence of autocorrelation in the observed data among the variables under investigation.

The heteroscedasticity test is performed when the residuals produced by a regression model do not have a uniform distribution. In a homoscedastic condition, the residual variance remains consistent across different sets of observations. Also, heteroscedasticity indicates a situation where there is variability in the residual variance.

There is no inherent contradiction between the two commonly referred to categories of distributions known as homoscedastic and heteroscedastic. The constancy of the standard deviation is a fundamental characteristic of the statistical concept known as "homoscedasticity," wherein the standard deviation remains stable. Homoscedasticity, also referred to as the absence of heteroscedasticity, is a fundamental characteristic that distinguishes various regression models. Homoscedasticity is frequently defined as the condition in which heteroscedasticity is absent.



**Figure 5. Scatterplot**

Homoscedasticity refers to the condition where the variability of a variable remains consistent across all levels of that variable. In other words, it signifies that the variance of the variable is constant. This statement is essentially equivalent to asserting the absence of heteroscedasticity, which pertains to unequal fluctuations in a variable across various levels. The evaluation methodology employs scatter plots to provide a precise visual representation of the data. To determine the presence of heteroscedasticity in the data, it is essential to scrutinize the scatter plot,

which displays the distribution of regression points. When heteroscedasticity is not present, the Y-axis data points display a random distribution, with the majority of points situated above the zero line and a few points below it (Figure 5).

### **Hypothesis Testing Results**

Table 4 presents the results of the PLS analysis conducted with SmartPLS, which were used to assess all the direct effect hypotheses formulated in this study. The results indicate support for H1 ( $\beta = 0.059$ ,  $\rho = 0.000$ ), H2 ( $\beta = 0.073$ ,  $\rho = 0.000$ ), and H3 ( $\beta = 0.054$ ,  $\rho = 0.003$ ). These findings suggest that by promoting decentralization, good leadership, a conducive academic environment, and satisfaction with academic policies can be fostered. Hypothesis 4 exhibits a positive and significant relationship ( $\beta = 0.071$ ,  $\rho = 0.000$ ), and similarly, Hypothesis 5 demonstrates a positive and significant effect ( $\beta = 0.065$ ,  $\rho = 0.000$ ). These results suggest that positive leadership will influence the creation of a good academic environment, and satisfaction with the academic environment will also increase as a result.

Hypothesis 6 reveals a positive and significant relationship ( $\beta = 0.065$ ,  $\rho = 0.000$ ). This indicates that a positive academic environment is associated with an increase in satisfaction with academic policies among employees. Positive and statistically significant results were observed when testing Hypothesis 7, with a  $\beta$  value of 0.063 and  $\rho$  value of 0.000. This indicates that academic self-efficacy has a positive and significant effect ( $\beta = 0.033$ ,  $\rho = 0.014$ ), demonstrating that maintaining employees' satisfaction with the academic work environment leads to an increase in satisfaction with academic policies. Hypothesis 8 postulates that moderating academic self-efficacy does not have an impact on the relationship between satisfaction with academic policies and academic performance, with a  $\beta$  value of 0.033 and  $\rho$  value of 0.014.

This study explores several mediating variables, with academic policy satisfaction being one of them, influencing the indirect effect. A positive and statistically significant mediation is observed ( $\beta = 0.034$ ,  $\rho = 0.000$ ) between academic environmental conditions and academic performance through the extent to which students are satisfied with academic policies. The second moderating factor in the relationship between decentralization and student achievement is strong leadership. The outcomes of this mediation are both statistically significant and favorable ( $\beta = 0.045$ ,  $\rho = 0.000$ ). Lastly, the results indicate a positive and significant mediation ( $\beta = 0.035$ ,  $\rho = 0.000$ ).

between leadership and academic performance through students' satisfaction with their institution's academic policy.

**Table 5**

*Direct Effect*

Hypothesis	$\beta$	t	$\rho$
H1. Decentralization -> Leadership	0.059	8.585	0.000
H2. Decentralization -> Academic Environmental Condition	0.073	5.726	0.000
H3. Decentralization -> Satisfaction of Academic Policy	0.054	2.958	0.003
H4. Leadership -> Academic Environmental Condition	0.071	6.055	0.000
H5. Leadership -> Satisfaction of Academic Policy	0.065	5.190	0.000
H6. Academic Environmental Condition -> Satisfaction of Academic Policy	0.065	5.201	0.000
H7. Satisfaction of Academic Policy -> Academic Performance	0.063	6.085	0.000
H8. Academic Self-Efficacy X Satisfaction of Academic Policy -> Academic Performance	0.033	2.462	0.014

**Table 6**

*Specific Indirect Effect*

	$\beta$	t	$\rho$
Academic Environmental Condition -> Satisfaction of Academic Policy -> Academic Performance	0.034	3.839	0.000
Decentralization -> Leadership -> Academic Performance	0.045	4.631	0.000
Leadership -> Satisfaction of Academic Policy -> Academic Performance	0.035	5.241	0.000

### Discussion, Conclusion and Implications

The study investigates the correlation between academic policy satisfaction and performance, as well as the effects of decentralization, leadership, academic environmental conditions, and moderating variables. This research is essential as it enables the timely dissemination of reliable data concerning the academic achievement of faculty members in higher education. The study has shown that leaders who can foster a positive work environment for their employees play a crucial role in enhancing the overall academic success of instructors in higher education. With the progression of the decentralization process, it is anticipated that an increased number of capable leaders will emerge, consequently promoting a more conducive learning environment and resulting

in heightened student satisfaction with academic policies. The hypothesis Decentralization has impact on leadership, academic environmental conditions, satisfaction of academic policy is accepted in line with the literature, Goel et al. (2017) examine the intricate relationship between decentralization and power dynamics within businesses, with a specific emphasis on the role of top executives. Decentralization is frequently advocated as a means to empower lower-level employees to make decisions and enhance organizational flexibility. The findings of Arkorful et al. (2021) are crucial in comprehending the dynamics of power and decision-making within decentralized organizations. Contrary to previous beliefs, the findings suggest that decentralization does not necessarily result in increased democratic power. However, within decentralized systems, high-ranking executives have the ability to employ diverse strategies in order to maintain and potentially enhance their authority.

Research findings suggest that the implementation of positive leadership practices is expected to have significant effects on the overall academic environment. Based on the research findings, it is anticipated that there will be a parallel rise in the level of satisfaction with the academic environment. The present scenario elicits concern as it has been found that a positive work environment is closely associated with the presence of effective leadership. Research findings suggest that a work environment that provides support can play a crucial role in motivating teachers to enhance their performance within the classroom. The results of this investigation, The hypothesis of the study leadership may have an impact on academic environmental conditions, satisfaction of academic policy, is accepted align with the research outcomes reported by Advani and Abbas (2015) and Doraiswamy (2012). The research findings indicate that the implementation of decentralization plays a crucial role in enhancing leaders' understanding of individuals under their supervision. This understanding, in turn, facilitates the acceptance of educational policies established by higher authorities among those being monitored. Therefore, it can be concluded that decentralization is of paramount significance in the educational context.

This study is crucial as it is the sole means of acquiring precise data for the formulation of policies that are beneficial to schools and teachers. Research indicates that a competent leader must possess both policy expertise and authoritative power. Essential behaviors encompass maintaining situational awareness and exhibiting empathy towards colleagues and subordinates. Research has shown that a carefully planned educational environment has the ability to bring about change. The

research findings indicate that the initiative being considered has the potential to greatly enhance employee motivation and satisfaction with academic policies. Research findings indicate that a significant benefit of this approach is its capacity to inspire employees to overcome challenging obstacles and attain more ambitious objectives. The favorable environment promotes individual and career development, resulting in increased work efficiency and overall achievement. Academic environmental conditions has impact on satisfaction with academic policy is accepted, the current research results corroborate the conclusions made in prior studies (Al-Amin, 2017; Mangkunegara & Miftahuddin, 2016) regarding the significant influence of transformational leadership on organizational performance. Torres (2022) argues that effective leadership requires taking into account the repercussions of decisions on team members. Research indicates that the proficiency of a competent leader can be evaluated by analyzing the degree of contentment among their subordinates regarding their assigned responsibilities and powers within their academic spheres. One of the benefits of this environment is the chance to cultivate. Individuals who express their desires for personal and professional growth are more motivated and inspired to progress. Through the acquisition of additional skills, knowledge, and expertise, individuals can enhance their employability.

Collaboration is another crucial aspect of an environment that nurtures growth, collaboration, and innovation. Satisfaction with academic policy has impact on academic performance is accepted in line with the literature, Ingersoll, (2017) and Wang et al. (2019). According to a study conducted by there is a significant relationship between meeting basic psychological needs and academic success. The research findings suggest that when individuals' basic psychological needs are fulfilled, it positively impacts their academic performance. However, the study also highlights the importance of not neglecting specific needs, as doing so can lead to negative consequences. These findings emphasize the significance of addressing both general and specific psychological needs in order to promote academic success. The present study explores the transformative journey individuals undertake in their pursuit of academic excellence. It investigates how this journey contributes to an elevated sense of fulfillment, reaching unprecedented levels. The findings shed light on the profound impact that the pursuit of knowledge has on individuals' personal growth and overall satisfaction.

The ability to understand and assess the impact of policies is crucial for leaders in order to effectively manage the team. Academic self-efficacy as moderating has impact on satisfaction of

academic policy and academic performance is accepted. Previous research studies, including Pinheiro and Nordstrand (2017) and Wang et al. (2019), have provided supporting evidence for the findings mentioned. Research findings suggest that the implementation of strong policies plays a vital role in creating a favorable atmosphere for academic education. These policies are instrumental in facilitating the growth and development of individuals within the community, allowing them to maximize their capabilities and consistently enhance their academic performance. Research findings suggest that when work members are satisfied with the policies in their organization, they are more likely to feel empowered to fulfill their duties and strive for optimal performance and outcomes. This highlights the importance of creating a positive work environment that supports and values the needs and preferences of employees. By fostering satisfaction with policies, organizations can enhance employee motivation and engagement, ultimately leading to improved overall performance and outcomes within the workplace. The facilitation of accessing extraordinary levels of employee happiness within the academic domain is closely linked to the emotional well-being of work members. The findings of a research project examining the current state of higher education and the interrelationships among its components can provide valuable insights. Competent university administrators possess the ability to effectively guide and engage teachers in technology-based workshops aimed at enhancing teaching practices, even if the teachers have previously expressed resistance towards such methods (Fernandez & Shaw, 2020). The topic encompasses various elements including personal characteristics, work circumstances, leader-follower interactions, and formal and informal power dynamics (Shen et al., 2001). If employers prioritize the health and happiness of their workers, they can anticipate a significant increase in overall satisfaction with academic policies. Theoretically, this study has the potential to contribute three distinct elements to the existing body of literature. Initially, it contributes to existing knowledge by examining the tangible connections between academic leadership, policy decentralization, policy satisfaction, academic success, and academic self-efficacy in higher education. This study aims to provide valuable insights into the current state of higher education by conducting empirical research on the interrelationships among these components. An examination of the broader landscape of higher education and its interrelated components can provide valuable insights into the roles of professors and other academic personnel, the responsibilities of university administrators, and the significance of creating conducive environments for teaching and research in colleges and universities.



### **Conclusion and Recommendation**

Collaboration between subordinates and superiors is indispensable for fostering a positive work environment and promoting productivity among individuals in the higher education sector. Stakeholders in higher education are expected to formulate policies that facilitate the engagement of every academic member.

These policies ought to serve as incentives for academic staff to engage actively in all endeavors within the higher education milieu, including the decision-making process. The outcomes of this study may hold implications for potential revisions in policies, leadership methodologies, and educational strategies within tertiary institutions, encompassing universities and colleges. Gaining comprehension of the interactions among these factors has the potential to enhance the academic experience, thereby leading to improved outcomes for both students and faculty. Policies within higher education should foster an organizational climate conducive to elevating the individual and collective motivation of its members, both of which stand to gain from the policy's execution. Enhanced academic performance among members of higher education organizations is contingent upon the provision of a satisfactory academic environment for these individuals. This will enable organizational members to fulfill their respective duties, particularly considering that higher education institutions serve as entities dedicated to the advancement and dissemination of knowledge and science, thus making substantial contributions to society. Consequently, the academic performance of individuals within the higher education milieu holds significant importance.

This is due to the fact that higher education institutions are establishments primarily engaged in the advancement and dissemination of knowledge and science. The results of such research can serve a dual purpose, contributing to the broader field of research related to higher education while also guiding decision-making processes within academic institutions. This likely pertains to the role of leadership within academic institutions, encompassing university administrators and academic department heads. It is conceivable that this study will explore the impact of effective leadership on various facets of higher education. In practical terms, this study provides the higher education sector with valuable insights on the potential of autonomous leadership and policies to enhance the performance of higher education instructors. These concepts are salient within the context of higher education. It is anticipated that the study will employ research methods such as

surveys, interviews, and data analysis. These methods will be utilized to collect and analyze pertinent data for the study. The results of this research have the potential to make contributions to the broader field of research within higher education and inform decision-making processes within academic institutions. Consequently, higher education institutions must prioritize the training of academic leaders in effective leadership practices, enabling them to comprehend, support, and attend to the needs of their staff comprehensively. This endeavor aims to foster a conducive environment for the satisfaction of their subordinates. The establishment of educational programs dedicated to cultivating leadership skills in higher education is imperative and warrants top-level attention.

This study contributes to the broadening of our understanding of the factors influencing the development of learning personality competence. Nevertheless, several limitations and directions for future research should be acknowledged. Firstly, the study's small sample size, obtained through convenience sampling, may limit the generalizability of the findings. Subsequent investigations on this subject should encompass a more substantial sample size and adopt a probability sampling approach. Second, the utilization of self-reported data may introduce potential biases, including recall bias and others. The researchers were unable to ascertain the extent to which respondents' self-reports accurately reflected their actual educational experiences. Despite our analysis suggesting that common method bias is not a concern in our study, it is advisable for future research to replicate the study using data from two distinct sources. Thirdly, forthcoming research should employ a longitudinal research design to assess cause-and-effect relationships.

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