
SEM-PLS ANALYSIS OF CAMPUS CLIMATE AND SELF-EFFICACY INFLUENCES ON UNDERGRADUATES' PSYCHOLOGICAL WELL-BEING

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Abstract

This study examined the influence of campus climate and self-efficacy on the psychological well-being of undergraduate students in Educational Administration at Universitas Pendidikan Indonesia. A quantitative approach was employed using SEM-PLS analysis on 50 students selected through stratified random sampling. Data were collected using questionnaires measuring Campus Climate, Self-Efficacy, and Psychological Wellbeing. The analysis included measurement model evaluation through convergent and discriminant validity testing, followed by structural model assessment using SmartPLS 3 software with 5,000 bootstrapping resamples. The convergent validity test results showed that all indicators had outer loading values above 0.5 and met the criteria for discriminant validity based on the Fornell-Larcker method, cross-loading, and the Heterotrait-Monotrait ratio (HTMT < 0.90). The three constructs of Campus Climate (CC), Self-Efficacy (SE), and Psychological Well-Being (PWB) also meet the reliability criteria, with Composite Reliability and Cronbach's Alpha values above 0.70. Major findings revealed that Campus Climate contributed 47.2% to explaining variance in Psychological Well-Being, while Self-Efficacy contributed 25.2%. Hypothesis testing showed a significant relationship between CC to PWB ($\beta = 0.442$, $p = 0.000$), CC to SE ($\beta = 0.502$, $p \text{ value} = 0.000$), and SE to PWB ($\beta = 0.349$, $p \text{ value} = 0.035$). These results confirmed that both campus climate and self-efficacy significantly influence students' psychological well-being, with campus climate serving as the stronger predictor. The findings emphasized the critical importance of creating supportive, fair, and inclusive campus environments alongside fostering strong self-efficacy beliefs as fundamental foundations for comprehensively enhancing students' psychological well-being.

Keywords: campus climate, educational administration, psychological well-being, self-efficacy, students

Introduction

Becoming a university student marks an important transition from high school adolescence to early adulthood, where the fulfillment of educational needs becomes the main focus. According to research on emerging adulthood, this transition period generally occurs between the ages of 18 and 25 and represents a critical developmental stage. During this period, individuals enter higher education to develop intellectual understanding and improve their employment opportunities and skills. Students are expected to achieve cognitive development that allows them to adapt to various new things, such as new insights, different ways of thinking, cultural differences, and various views and values (Kuserawati & Farida, 2022). However, this critical developmental period often presents significant psychological challenges that can impact student success and well-being.

Mental health concerns among university students have become increasingly recognized as a significant issue requiring attention. Students often experience academic stress caused by a high course load, including numerous assignments, exams, and presentations. This heavy load can lead to pressure, difficulty managing time, and a lack of rest (Zega & Zega, 2025). This condition is a trigger for mental health problems among university students, which can negatively impact their psychological well-being. The most common disorders found are anxiety, stress, depression, and other mental health issues (Thanoi et al., 2023).

The severity of this problem is particularly evident in the Indonesian context, where empirical evidence reveals concerning statistics about student psychological well-being. Low psychological well-being among university students in Indonesia is not new. Several studies have shown that there are quite a several students who have low psychological well-being. Research conducted by Triaswari and Utami (2014, as cited in Aditya et al., 2022) found that 27.26% of psychology students from Universitas Gadjah Mada had low psychological well-being. According to Putri (2012), as cited in Aditya et al., 2022), as many as 46.2% of students from Universitas Indonesia have low psychological well-being. In addition, according to Kurniasari, Rusmana & Budiman (2019), as cited in Aditya et al., 2022), as many as 38% of students from the Universitas Pendidikan Indonesia are also known to have low levels of psychological well-being. These statistics underscore the urgency of addressing psychological well-being issues and provide the foundational rationale for conducting this research.

The importance of this issue has been further emphasized by national-level recognition. The first Indonesian national mental health survey (I-NAMHS) led by experts from UGM emphasized the importance of the availability of national-scale prevalence data for planning adolescent mental health programs (Universitas Gadjah Mada, 2023). With the increasingly complex challenges in the world of education, students of Educational Administration, as future educational leaders, need optimal psychological well-being to be able to carry out their roles effectively. This is particularly important given their future responsibilities in shaping educational policies and environments that will impact future generations.

Research has identified various environmental and individual factors that may influence student psychological well-being, with campus climate and self-efficacy appearing as important areas of investigation. The impact of school climate on students' mental health and academic achievement cannot be underestimated. A positive school environment promotes students' well-being, engagement, and achievement, while a negative climate can hinder their growth and success. By prioritizing supportive relationships, inclusivity, and open communication, schools can create a climate that supports both mental health and academic excellence. Investing in a positive school climate means

investing in the future, ensuring that all students have the opportunity to thrive in their educational journey (Blair, 2021).

Studies indicate that campus climate may serve as an important element for student psychological adjustment and academic success. A positive school climate is an important thing that becomes the foundation of learning activities. Effective teaching and learning activities can be realized because of a good perception of the state or condition of the school (Mutiarra & Sobandi, 2018). School climate plays an important role in developing healthy and positive schools. Conceptually, the climate in schools is defined as a set of attributes that give color or character, spirit, ethos, inner atmosphere, to each school (Handayani et al., 2023). School climate explains the atmosphere and characteristics of the school that affect the school community in carrying out its activities. As also said by Hadiyanto, school climate is an atmosphere that arises because of interpersonal relationships in the school environment (Nini, 2019).

Similarly, self-efficacy has emerged as an important psychological construct that may significantly influence student outcomes and well-being. Self-efficacy reflects one's efficacious belief in executing certain actions that are context-specific, task-related, and can be independent of one's actual ability and self-appraisal (Zhou et al., 2025). Self-efficacy has a significant effect on a person's psychological well-being. Based on research results, it is known that to increase the level of psychological well-being, students need to have higher academic self-efficacy (Fan & Cui, 2024; Kuserawati & Farida, 2022). Evidence suggests that students with higher self-efficacy tend to demonstrate better psychological adjustment and academic performance.

While there is a growing body of research examining campus climate and self-efficacy individually, a significant gap exists in understanding how these factors may interact simultaneously to influence psychological well-being. Although the relationship between campus climate and psychological well-being, as well as self-efficacy and psychological well-being, has been studied separately, there is still a clear research gap. Specifically, limited research has comprehensively examined how campus climate and self-efficacy work together as interconnected predictors of psychological well-being, particularly in higher education contexts.

This gap is especially pronounced in the Indonesian educational context and among Educational Administration students specifically. Educational Administration students, as future leaders in the educational sector, may face particular academic pressures and professional expectations that could differentially impact their psychological well-being compared to students in other disciplines. The limited research focusing on this specific population represents a significant gap in understanding how to effectively support these future educational leaders.

Furthermore, much of the existing literature examines these variables separately, potentially missing the complex interrelationships that may exist between environmental factors (campus climate) and individual psychological factors (self-efficacy) in predicting well-being outcomes. Without understanding these potential interconnections, interventions designed to improve student well-being may be incomplete or less effective than they could be. This fragmented approach may limit both theoretical understanding and practical application of research findings.

This study addresses the identified gaps by providing a comprehensive examination of the simultaneous influence of campus climate and self-efficacy on psychological well-being among Educational Administration students in Universitas Pendidikan Indonesia. The research contributes to the existing knowledge base in several important ways:

First, it addresses the empirical gap by testing a comprehensive structural model that examines the relationships between campus climate, self-efficacy, and psychological well-being. This holistic

approach may provide insights that cannot be obtained from studies examining these variables separately and could offer a more complete understanding of the factors influencing student well-being. Second, it contributes to the limited research on Indonesian university students' psychological well-being, providing culturally relevant findings that may inform evidence-based policies and practices within the Indonesian higher education context. Third, by focusing specifically on Educational Administration undergraduate students, the study provides targeted insights for a population that will play crucial roles in shaping future educational environments, policies, and practices. Understanding the psychological well-being of future educational leaders may be essential for ensuring the quality and effectiveness of educational systems. Fourth, the findings may provide evidence-based recommendations for university administrators, faculty members, and student support services to create more supportive campus environments and develop programs that enhance student self-efficacy and psychological well-being.

Based on this background, this study is designed to answer the following research questions, which are also the objectives of this study: 1) Does campus climate significantly affect the psychological well-being of Educational Administration undergraduate students? 2) Does campus climate significantly affect the self-efficacy of Educational Administration undergraduate students? 3) Does self-efficacy significantly affect the psychological well-being of Educational Administration undergraduate students? By addressing these research questions, this study aims to provide a comprehensive understanding of how campus climate and self-efficacy may work together to influence student psychological well-being, potentially contributing to the development of more effective, evidence-based approaches for supporting student mental health and academic success in higher education settings.

Literature Review

This literature review will discuss three key concepts: campus climate, self-efficacy, and psychological well-being, and their important roles for students. Campus climate is the overall environment in a school that can influence students' feelings and behavior. Self-efficacy is a student's belief in their own ability to succeed. Ultimately, the combination of a good environment and strong self-belief significantly contributes to psychological well-being, which is crucial for academic success and personal growth. Understanding the relationship between these three areas is key to supporting students comprehensively.

Campus Climate

According to Hadiyanto (2004), as cited in Kusnendar et al., 2024 states that school climate is the final product of interactions between groups of students in schools, teachers, and administrators who work to achieve a balance between the organizational dimension (school) with the individual dimension. Based on the opinions of experts, it can be concluded that the organizational climate is everything that exists in the school environment that is felt and affects the behavior of individuals involved in the school.

According to Sutrisno (2013), as cited in Kusnendar et al., 2024), in order for schools to function perfectly well, several aspects of school climate are needed. Aspects of school climate that need to be considered include three main dimensions. The first dimension is interaction, with indicators of student interaction with teachers, interaction with employees, and student interaction with other

students. The second dimension is the learning process, with indicators of democratic atmosphere, caring, openness, and togetherness. The third dimension is school conditions, meaning the condition of school facilities and infrastructure to carry out educational activities, which include facilities for discussions, lectures, seminars, and dialogues, and other supporting facilities. The aspect of school conditions has indicators of security, order, cleanliness, health, and beauty. Research has established that positive school climates are characterized by safety, supportive relationships, engaging environments, and institutional factors that collectively promote student engagement and well-being.

According to Gage (2014), as cited in Pertiwi & Wilantika, (2024) the dimensions of School Climate (describes three dimensions of school climate: 1. School Safety: The extent to which students feel comfortable at school, including physical and material aspects, as well as school rules or norms. 2. Social Relationship: The interaction, communication, and relationship between teachers and students, students and other students, and students' attitudes toward teachers. 3. School Connectedness: Students' relationship with the school environment, including feelings of acceptance, respect, belonging to the school, and social support received.

Self-Efficacy

Self-efficacy is a person's belief in understanding their ability to complete academic tasks based on confidence about the importance of grades and expectations of the results obtained. Self-efficacy is very important in the academic world to complete tasks and exams with the desired results. If learners have a relatively high level of self-efficacy, academic stress can be reduced (Husnah et al., 2025). Self-efficacy refers to an individual's evaluation and assessment of their ability to successfully perform a specific action when considering the likelihood of achieving a desired outcome (Chen et al., 2025).

Basically, someone who has self-efficacy believes that the actions they take can achieve the desired results, so they can survive in the face of existing challenges and difficulties (Yulita & Defrinal, 2025). According to Bandura (1977), as cited in Ghimby, (2024), three dimensions of self-efficacy are revealed. The first dimension is magnitude, which represents the level of difficulty of the task a person is doing. The second dimension is strength, which reflects a person's confidence in their ability to carry out certain tasks. The third dimension is generality, which indicates the level of confidence in carrying out certain tasks across different contexts. Self-efficacy is one of the important factors to encourage student learning in achieving the goals that have been set.

Psychological Well-Being

Psychological well-being represents a multidimensional construct that goes beyond the mere absence of mental illness to encompass positive psychological functioning. Contemporary theoretical models conceptualize psychological well-being through multiple core dimensions that reflect optimal human functioning across various life domains. Psychological Well Being is defined as a positive appraisal of one's life associated with the achievement of comfortable emotions. Psychological well-being also relates to a person's emotions associated with daily life activities. These emotions can range from negative mental states such as life dissatisfaction and anxiety to positive states of fulfillment and contentment (Annisa et al., 2024).

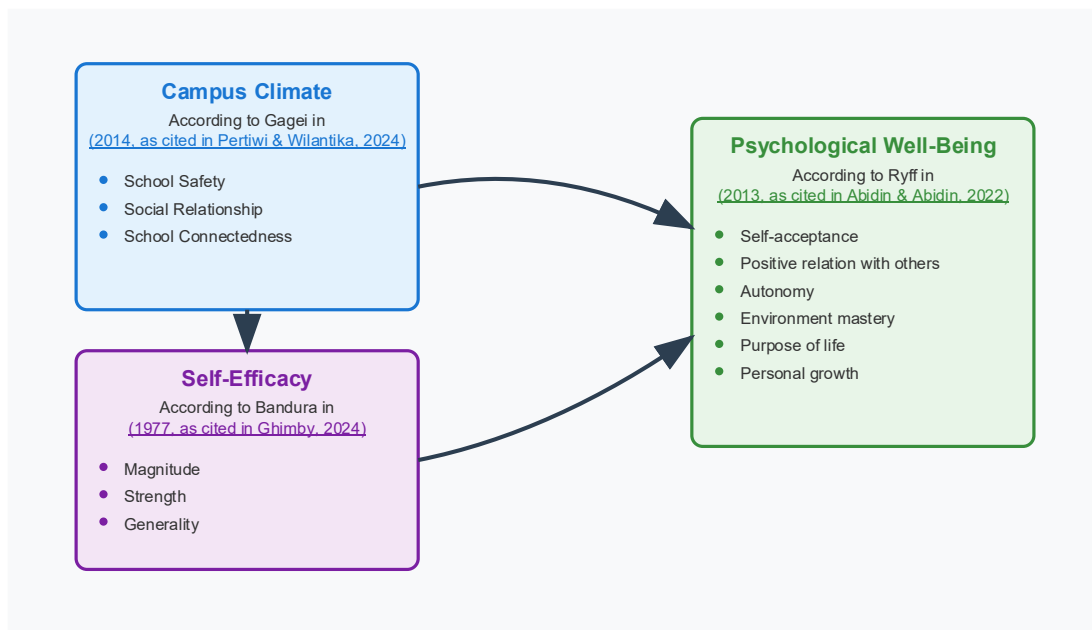
According to Ryff (2013, as cited in Abidin & Abidin, 2022), the dimensions of psychological well-being include six interconnected components. The first dimension is self-acceptance, which

involves a positive self-assessment, such as realizing, recognizing, and accepting the strengths and weaknesses possessed, and maintaining a positive assessment of the past. The second dimension is positive relations with others, representing the ability to establish warm, loving, empathetic, and trusting relationships with others. The third dimension is autonomy, which reflects a person who has the freedom to act in the right way, can regulate and evaluate behavior determined by their own standards. The fourth dimension is environmental mastery, which encompasses the ability to regulate the external environment and be able to develop oneself in an environment that is in accordance with one's values. The fifth dimension is the purpose of life, which involves the belief in the purpose of life to achieve meaningfulness in life. The sixth dimension is personal growth, which represents the ability of individuals to develop continuously and have openness to experience.

Theoretical Frameworks

Based on the integration of established theories, this study proposes a conceptual model in which campus climate and self-efficacy serve as factors that influence psychological well-being. This theoretical integration suggests that campus environment and self-efficacy can promote better student well-being.

Figure 1. *Theoretical Framework*



Based on the literature review and theoretical framework, this research proposes the following hypotheses:

- H1: Campus climate has a positive and significant effect on student psychological well-being
- H2: Campus climate has a positive and significant effect on student self-efficacy
- H3: Self-efficacy has a positive and significant effect on students' psychological well-being

Methodology

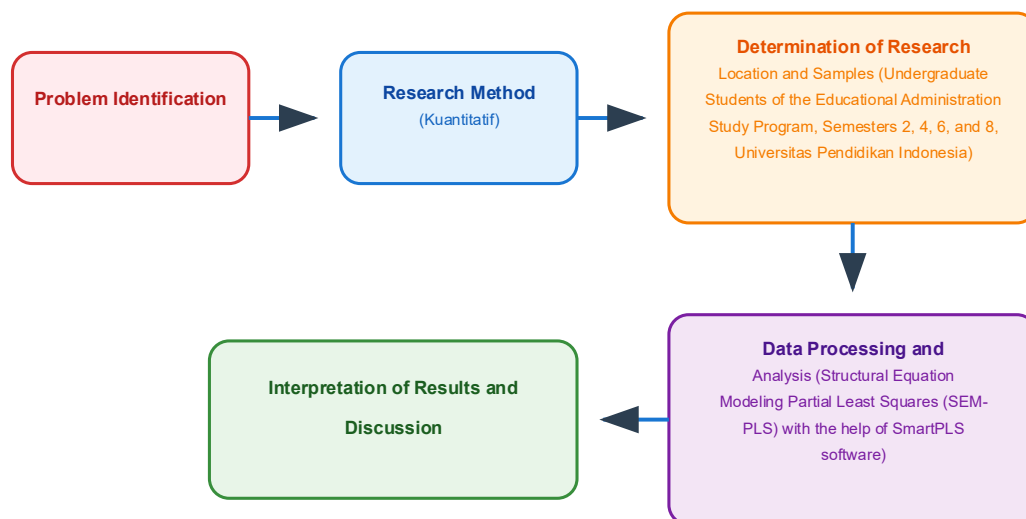
Research design and approach of the study

This study employed a quantitative research design with a correlational approach, specifically utilizing Structural Equation Modeling-Partial Least Squares (SEM-PLS) to examine the effects of campus climate and self-efficacy on psychological well-being. The correlational approach was chosen because it is suitable for determining the relationship, as well as the direction and strength, between variables.

The independent variables in this study are campus climate and self-efficacy, while the dependent variable is psychological well-being. To measure each variable, an instrument in the form of a standardized questionnaire was used. Data analysis was carried out using the structural equation modeling partial least squares (SEM-PLS) method with the help of SmartPLS 3 software to analyze the data. The choice of SEM-PLS over covariance-based SEM was justified based on the exploratory nature of the study, small sample size, and focus on prediction rather than theory confirmation. To know the extent to which campus climate and self-efficacy can predict students' psychological well-being.

This research was conducted at the Bachelor of Education Administration Study Program, Faculty of Education, Universitas Pendidikan Indonesia. This location was chosen because it is relevant to the focus of the research and has students with appropriate academic backgrounds to examine the influence of campus climate and self-efficacy on psychological well-being.

Figure 2. *Research Flowchart*



Research site and participants

Respondents in this study were 50 undergraduate students of the Educational Administration study program, consisting of 2nd, 4th, 6th, and 8th semester students. The respondent criteria included three main requirements. First, participants must be active students of the Education Administration undergraduate program. Second, they must be willing to participate voluntarily with informed consent. Third, they must have undergone at least one semester of lectures to ensure sufficient campus

experience. The sample selection was carried out using a stratified random sampling technique, so that each semester group was proportionally represented.

Hair et al. (2011), as cited in Kock & Hadaya, (2018) argued that the most widely used minimum sample size estimation method in PLS-SEM, in the field of IS as well as other fields, is the "10-times rule" method. Goodhue et al. (2012), as cited in Kock & Hadaya, (2018) argued that among the variations of this method, the most commonly seen is based on the rule that the sample size should be greater than 10 times the maximum number of inner or outer model links pointing at any latent variable in the model. PWB variables receive the most incoming arrows, namely two arrows (from CC and SE variables). Based on this calculation, the minimum sample size required is $10 \times 2 = 20$. Therefore, the research sample was set at more than 20 respondents to ensure data sufficiency in the analysis.

The questionnaire administration process was carried out from March to April 2025, following ethical guidelines including informed consent, voluntary participation, and confidentiality assurance. The distribution of respondents is summarized in Table 1 below.

Table 1. *Research respondents*

Categories	Sub-Category	Frequency	Percentage (%)
Gender	Male	6	12%
	Female	44	88%
	Total	50	100%
Semester	2	19	38%
	4	15	30%
	6	3	6%
	8	13	26%
	Total	50	100%

Source: Results of Direct Observation

Data Collection and Analysis

The purpose of data collection in this study was to gather quantitative data from respondents to measure the latent variables in the research model. The collected data were used to test hypotheses and evaluate the relationships between constructs. Data were collected using questionnaires, all on a 4-point Likert scale (1 = strongly disagree, 4 = strongly agree). The campus climate questionnaire measured students' perceptions of the institutional environment, focusing on school safety, social relationships, and school connectedness. The self-efficacy questionnaire assessed beliefs in one's ability to cope with challenges, examining magnitude, strength, and generality. The psychological well-being questionnaire evaluated six dimensions of positive functioning: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. The questionnaires were administered electronically using Google Forms to ensure efficient data collection, reduce potential errors in data entry, and maintain participant anonymity (Aulianto & Raharja, 2023).

Ethical considerations were strictly followed, including obtaining informed consent from all participants, ensuring voluntary participation without coercion, maintaining confidentiality of

responses, and providing participants with the right to withdraw at any time. The study protocol was reviewed and approved by the institutional review board. Data analysis was conducted using SmartPLS 3 software with a two-stage approach. The first stage is to evaluate the measurement models. Once this model meets all the required criteria, researchers can proceed to the second stage, which is assessing the structural model (Hair et al., 2019). The choice of SEM-PLS was justified based on several factors: its appropriateness for exploratory research and theory development, its capability to handle small sample sizes effectively, its robustness in dealing with non-normal data distributions, and its focus on prediction and variance explanation (Supriadi & Artanti, 2025).

Stage 1: Measurement model evaluation (outer model)

The first stage involved a comprehensive evaluation of the measurement model through several assessments. Convergent validity assessment was evaluated through outer loadings with threshold ≥ 0.50 for exploratory research and ≥ 0.70 for confirmatory research, and Average Variance Extracted (AVE) values with threshold ≥ 0.50 . Items with outer loadings below 0.50 were removed from the model to improve construct validity (Hamid & Anwar, 2017). According to Templeton (2002, as cited in Sibarani, 2024), the factor loading score is acceptable if it is above 0.50 (> 0.50).

Discriminant validity assessment was conducted using three complementary methods: the Fornell-Larcker criterion, where the square root of AVE for each construct should be higher than its correlation with other constructs; cross-loadings analysis, where each indicator's loading on its assigned construct should be higher than its loadings on other constructs; and Heterotrait-Monotrait ratio of correlations (HTMT), with threshold values < 0.90 for conceptually distinct constructs (Darmanto & Bukirom, 2025).

Reliability assessment involved evaluating internal consistency reliability using Composite Reliability with a threshold ≥ 0.70 and Cronbach's Alpha with a threshold ≥ 0.70 . Composite Reliability is preferred in PLS-SEM as it considers the different outer loadings of indicator variables, providing a more accurate assessment of internal consistency reliability (Hamid & Anwar, 2017).

Stage 2: Structural model evaluation (inner model)

Inner model is a structural model, based on the path coefficient value, see how much influence between latent variables with bootstrapping calculations (Hamid & Anwar, 2017). The first step is to check the exogenous constructs for collinearity to ensure they do not affect the regression results. This process is similar to evaluating a formative measurement model, but the latent variable scores of the exogenous constructs are used to calculate VIF values. Ideally, the VIF value should be close to 3 or lower (Hair et al., 2019).

Next, the evaluation is carried out by looking at the criteria for the R-Square value and the significance value. The R-Square is also referred to as in-sample predictive power. The R-Square ranges from 0 to 1, with higher values indicating a greater explanatory power. As a guideline, the R-Square values of 0.75, 0.50, and 0.25 can be considered substantial, moderate, and weak. Significance testing assessed the strength and significance of hypothesized relationships using a bootstrapping procedure with 5,000 resamples to generate stable and reliable results (Hair et al., 2018). For this study, hypothesis testing decisions were made using a significance level of 0.05, which corresponds to a tolerable error rate of 5% and a confidence level of 95%. Based on standard statistical principles, a

research hypothesis is supported when the significance value (p-value) is ≤ 0.05 . Conversely, the hypothesis is rejected if the significance value (p-value) is > 0.05 .

Results

This section presents the findings of the study, organized according to the research questions stated in the Introduction section. The analysis addresses three primary research questions: Does campus climate significantly affect the psychological well-being of Educational Administration undergraduate students? Does campus climate significantly affect the self-efficacy of Educational Administration undergraduate students? Does self-efficacy significantly affect the psychological well-being of Educational Administration undergraduate students?

Measurement model test

Convergent and discriminant validity tests, the measurement model was evaluated following established criteria for PLS-SEM analysis. All indicators were assessed for their ability to adequately represent their respective constructs before proceeding to structural model evaluation. The loading factor value > 0.7 is said to be ideal, meaning that the indicator is said to be valid in measuring the construct. In empirical research, the loading factor value > 0.5 is still acceptable. Thus, the loading factor value < 0.5 must be removed from the model (dropped). According to [Templeton \(2002\)](#), as cited in [Sibarani, 2024](#), the factor loading score is acceptable if it is above 0.50 (> 0.50).

Table 2. *Outer loading*

Variables	Items	Outer Loading	Information
Campus Climate	CC1	0.727	Valid
	CC3	0.830	Valid
	CC4	0.716	Valid
	CC5	0.818	Valid
	CC9	0.560	Valid
Psychological Well-Being	PWB12	0.760	Valid
	PWB14	0.801	Valid
	PWB15	0.803	Valid
	PWB16	0.701	Valid
	PWB3	0.819	Valid
	PWB4	0.651	Valid
Self-Efficacy	SE2	0.695	Valid
	SE7	0.858	Valid
	SE8	0.711	Valid
	SE9	0.718	Valid

Source: Primary data processed using SmartPLS 3, 2025

Based on the results of the *outer loading* analysis, it can be concluded that most of the items on the Campus Climate, Psychological Well-Being, and Self-Efficacy variables have values above the minimum threshold of 0.5, so they are declared valid and suitable for use in construct measurement. However, some items are not shown in the table because they have an *outer loading* value below 0.5, which indicates that these items are invalid and unable to adequately represent the construct. Therefore, these items have been removed from the model to improve the quality and accuracy of the measurement results. This decision was made so that the model used has stronger construct validity and reliability (Supriadi & Artanti, 2025).

Table 3. *Fornell-Larcker*

	CC	PWB	SE
CC	0.736		
PWB	0.618	0.758	
SE	0.502	0.571	0.749

Source: Primary data processed using SmartPLS 3, 2025

Based on the results of the Fornell-Larcker Criterion analysis, each construct has a higher AVE (Average Variance Extracted) value than its correlation with other constructs, indicating that discriminant validity has been fulfilled. Thus, this model meets the criteria for discriminant validity based on the Fornell-Larcker method.

Table 4. *Heterotrait-Monotrait (HTMT)*

	CC	PWB	SE
CC			
PWB	0.707		
SE	0.625	0.720	

Source: Primary data processed using SmartPLS 3, 2025

Based on the results of the *Heterotrait-Monotrait (HTMT) ratio* analysis, all values between constructs are below the 0.90 threshold commonly used to assess discriminant validity. The HTMT value between Campus Climate (CC) and Psychological Well-Being (PWB) is 0.707, between Campus Climate (CC) and Self-Efficacy (SE) is 0.625, and between Efficacy (SE) and Psychological Well-Being (PWB) is 0.720. This shows that each construct has adequate discriminant validity, which means that each variable actually measures different concepts and does not overlap with the others.

Table 5. *Cross loading analysis*

	CC	PWB	SE
CC1	0.727	0.331	0.290
CC3	0.830	0.555	0.455
CC4	0.716	0.490	0.337
CC5	0.818	0.552	0.453

CC9	0.560	0.223	0.247
PWB12	0.575	0.760	0.446
PWB14	0.397	0.801	0.501
PWB15	0.533	0.803	0.428
PWB16	0.452	0.701	0.368
PWB3	0.404	0.819	0.431
PWB4	0.413	0.651	0.415
SE2	0.263	0.390	0.695
SE7	0.342	0.468	0.858
SE8	0.473	0.398	0.711
SE9	0.395	0.444	0.718

Source: Primary data processed using SmartPLS 3, 2025

The results of the cross-loading analysis showed that each indicator has the highest loading value on the measured construct, namely the CC indicator on Campus Climate, PWB on Psychological Well-Being, and SE on Self-Efficacy. This shows that discriminant validity is fulfilled, because the indicator represents its original construct more than other constructs.

Reliability test

Reliability assessment ensures the internal consistency of the measurement scales and the stability of the constructs. Construct reliability evaluates the internal consistency between indicators in measuring latent variables. The two main measures for construct reliability are Composite Reliability (CR), which measures the internal consistency of the construct as a whole. $CR \geq 0.70$ is considered adequate, and values between 0.60 and 0.70 are acceptable in exploratory research. Cronbach's Alpha measures the reliability between items within a construct. Cronbach's Alpha criteria ≥ 0.70 indicates good consistency (Supriadi & Artanti, 2025).

Table 6. *Reliability test*

	Cronbach's Alpha	Composite Reliability	AVE
CC	0.788	0.853	0.542
PWB	0.850	0.890	0.575
SE	0.736	0.835	0.561

Source: Primary data processed using SmartPLS 3, 2025

The results of the analysis showed that all constructs in this study have good reliability. The Cronbach's Alpha and Composite Reliability values for Campus Climate (CC), Psychological Well-Being (PWB), and Self-Efficacy (SE) are all above 0.70, which means that the instruments used are consistent and reliable. Thus, the measuring instrument in this study is declared reliable. The Average Variance Extracted (AVE) values for all constructs exceed 0.50, indicating that each construct explains more than half of the variance in its indicators, further confirming convergent validity. These results

collectively demonstrate that the measurement model is robust and suitable for structural model assessment.

Structural model and hypothesis test

Before evaluating the structural model, a collinearity assessment was conducted to ensure the absence of multicollinearity issues that could bias the path coefficient estimates.

Table 7. *Collinearity assessment (VIF values)*

Predictor Constructs	Target Constructs	VIF	Status
Campus Climate	Psychological Well-Being	1.337	No Collinearity
Campus Climate	Self-Efficacy	1.000	No Collinearity
Self-Efficacy	Psychological Well-Being	1.337	No Collinearity

Source: Primary data processed using SmartPLS 3, 2025

All VIF values were well below the threshold of 5.0, indicating no collinearity concerns. This confirmed that the structural model results can be interpreted without concerns about multicollinearity bias. According to Hair et al.(2019), model testing is conducted to determine the coefficients of R-squared, which indicate the extent of the influence of independent variables on the dependent variable. An R-squared value of 0.75, 0.50, and 0.25 may indicate substantial, moderate, and weak predictive accuracy, respectively.

Table 8. *Structural model test results*

	R Square	Adjusted R Square
PWB	0.472	0.450
SE	0.252	0.237

Source: Primary data processed using SmartPLS 3, 2025

The results of the analysis showed that Campus Climate contributed 47.2% to Psychological Well-Being, while Self-Efficacy contributed 25.2%. This means that Campus Climate has a greater influence than Self-Efficacy in improving students' Psychological Well-Being.

Table 9. *Hypothesis Test Results*

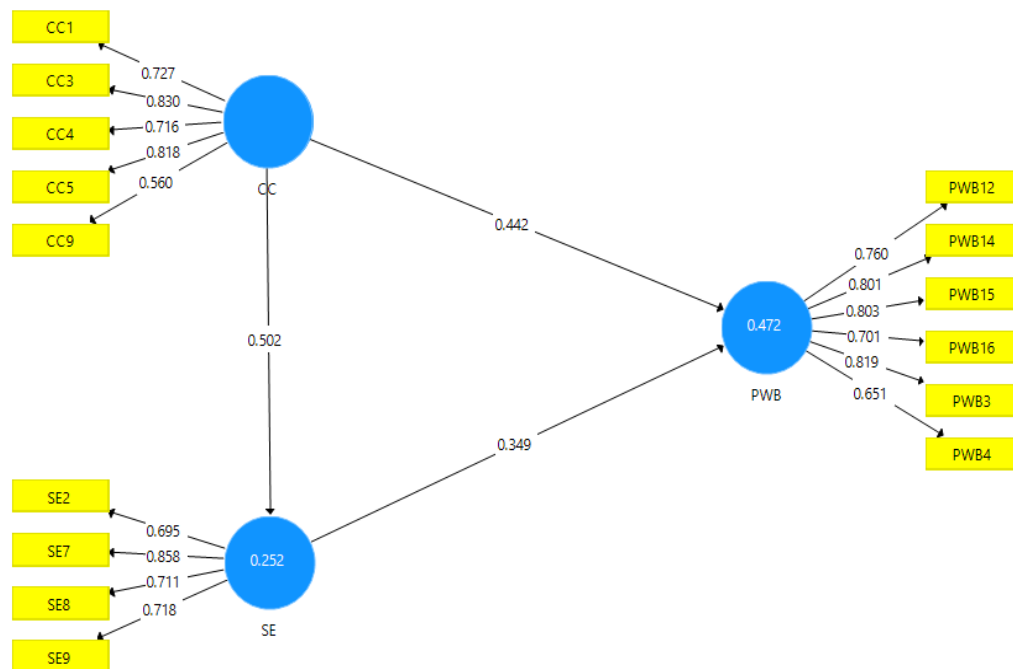
Hypothesis	Inter variable relationships	Coefficient β	T-Statistics	P-Value	Decision
H1	CC $\rightarrow$ PWB	0.442	3.896	0.000	Supported
H2	CC $\rightarrow$ SE	0.502	6.033	0.000	Supported
H3	SE $\rightarrow$ PWB	0.349	2.106	0.035	Supported

Source: Primary data processed using SmartPLS 3, 2025

Based on the hypothesis testing results, all relationships between variables in the research model were found to be statistically significant. The details for each hypothesis test are as follows: Testing Hypothesis H1 (CC $\rightarrow$ PWB), the analysis results show that Hypothesis H1, which states a significant influence of Campus Climate (CC) on Psychological Well-Being (PWB), is supported. This relationship has a path coefficient (β) of 0.442 with a T-statistic of 3.896 and a p-value of 0.000. Since the p-value is less than 0.05, we can conclude that there is a significant relationship between the two variables. Testing Hypothesis H2 (CC $\rightarrow$ SE), hypothesis H2, which proposed a significant influence of Campus Climate (CC) on Self-Efficacy (SE), is also supported. This relationship shows the highest path coefficient in the model, at 0.502. With a T-statistic of 6.033 and a p-value of 0.000, this result confirms a highly significant relationship between campus climate and self-efficacy. Testing Hypothesis H3 (SE $\rightarrow$ PWB), the results of testing Hypothesis H3, which examines the influence of Self-Efficacy (SE) on Psychological Well-Being (PWB), also show a significant relationship. This relationship has a path coefficient (β) of 0.349 with a T-statistic of 2.106 and a p-value of 0.035. Since the p-value is less than 0.05, this hypothesis is also supported.

In conclusion, the hypothesis testing results provide empirical evidence that all proposed relationships in this research model are significant. These findings indicate that both Campus Climate and Self-Efficacy play important and influential roles in students' Psychological Well-Being.

Figure 3. *Final SEM-PLS structural model with path coefficients*



The structural model demonstrates excellent fit with all hypothesized relationships supported. The model explains substantial variance in both endogenous constructs, with campus climate emerging as the stronger predictor of psychological well-being compared to self-efficacy.

Discussion

In the discussion section, the results of the R Square value show that Campus Climate has a contribution of 47.2% to student Psychological Well-Being, with an Adjusted R Square of 45%. This indicates the influence of campus climate on psychological well-being. Meanwhile, Self-Efficacy only contributed 25.2%, with an Adjusted R Square of 23.7%, which means that its influence on PWB is lower than the campus climate. This finding shows that a supportive campus environment, such as a comfortable learning atmosphere, positive relationships between students and lecturers, and academic support, has a greater role in shaping students' psychological well-being. Although Self-Efficacy is also influential, it is not as strong as the role of campus climate. This reinforces the importance of creating a healthy and supportive campus atmosphere to support students' psychological well-being (PWB) optimally.

Based on the results of hypothesis testing, it is known that all relationships between variables in the model show a statistically significant effect. First, the effect of Campus Climate (CC) on psychological well-being (PWB) has a path coefficient (β) of 0.442 with a *T-statistic* value of 3.896 and a *p-value* of 0.000. This value shows that a positive and conducive campus climate has a positive and significant effect on improving students' psychological well-being. This shows that hypothesis H1 is accepted, namely that the campus climate has a positive and significant effect on the psychological well-being of undergraduate students in the Education Administration study program at the University of Education Indonesia. This shows that the better students' perceptions of the campus environment, both in terms of social support, security, and institutional justice, the higher the level of well-being they feel. This is in accordance with research conducted by Sintawati (2009) school climate has a positive and significant effect on student PWB when controlled by self-esteem and social support. This shows that if the school climate is good, the higher the students' PWB. This is also in line with the results of research from Pertiwi & Wilantika (2024), based on the results of hypothesis testing, a highly significant positive relationship between school climate and school well-being in students was found. SMK X Gadingrejo. This shows that when students have a high school climate, they also tend to have high school well-being. Conversely, when the school climate is low, the students' school well-being level is also low.

Furthermore, the relationship between Campus Climate (CC) and Self-Efficacy (SE) shows a β coefficient of 0.502, with a *T-statistic* value of 6.033 and a *p-value* of 0.000, which shows a positive and significant effect. This shows that hypothesis H2 is accepted, namely that the campus climate has a positive and significant effect on the self-efficacy of undergraduate students in the Education Administration study program at the University of Education Indonesia. This means that a positive perception of the campus climate can increase students' confidence in their ability to complete academic tasks and face the challenges of campus life. A supportive and inclusive campus environment seems to contribute to the formation of stronger self-efficacy.

This is in line with the results of research from Annisa et al. (2024), who found a significant positive relationship between organizational climate and self-efficacy in employees. This statement means that the hypothesis stating that there is a significant positive relationship between organizational climate and self-efficacy is accepted. The direction of the relationship is positive, meaning that the more positive the organizational climate, the higher the self-efficacy of employees and vice versa.

Finally, the effect of Self-Efficacy (SE) on psychological well-being (PWB). The results of the analysis also show that Self-Efficacy has a positive and significant effect on Psychological Well-Being,

with a value of $\beta = 0.349$, $T = 2.106$, and $p = 0.035$. This shows that hypothesis H3 is accepted, namely, self-efficacy has a positive and significant effect on the psychological well-being of undergraduate students of the Education Administration study program at Universitas Pendidikan Indonesia. This shows that individuals with high self-efficacy tend to have a better level of psychological well-being.

This is in accordance with the results of research from Hartono et al. (2023) there is a significant positive relationship between Self-Efficacy and Psychological Well Being. This is also in accordance with the results of research from Maula (2021) that self-efficacy has a positive and significant effect on psychological well-being. Self-efficacy provides an effective contribution of 65.9%, which means that the more positive self-efficacy, the higher the psychological well-being. Apart from that, the results of Ezalina (2023) research state that there is a relationship between self-efficacy and psychological well-being, namely, high self-efficacy is associated with a high level of psychological well-being compared to those with low self-efficacy. This study provides several important implications, both theoretically and practically, that can enrich our understanding of student well-being. Theoretically, the findings prove that this study can enrich the educational administration and educational psychology literatures by providing strong empirical evidence regarding the relationship model between campus climate, self-efficacy, and students' psychological well-being.

The findings of this study have practical implications for various parties in the university environment. For university administrators and leaders, the findings underscore the urgency of proactively creating and maintaining a positive campus climate. Investing in programs that foster a sense of fairness, support, and inclusiveness on campus can significantly improve students' psychological well-being. This can be realized through transparent policies, effective grievance mechanisms, and easily accessible psychosocial support. Furthermore, for lecturers and education personnel, the importance of self-efficacy suggests that efforts to increase students' self-efficacy in facing academic and non-academic challenges will have a positive impact on their well-being. Mentoring programs, self-development workshops, or curricula that encourage independence and problem-solving can be effective strategies. Finally, for the students themselves, these findings provide awareness of the important role of campus climate and self-efficacy in their well-being. Students are encouraged to actively participate in positive activities on campus and develop skills to increase self-efficacy, such as setting realistic goals and reflecting on successes, to achieve better psychological well-being.

Although this study provides a meaningful contribution, some limitations need to be recognized. In terms of participant selection, this study only involved undergraduate students of Educational Administration at one university, namely Universitas Pendidikan Indonesia. This limits the generalizability of the findings to a wider population of students, such as those from different study programs or education levels. The unique characteristics of the study program and university may have influenced the results. In addition, due to time and location limitations, data was collected at one point in time and in one specific location. This means the findings may not reflect the dynamics of change over time or variations that may exist in other campus environments. The specific conditions of Universitas Pendidikan Indonesia at the time of the study may have influenced the results. These limitations provide direction for future research to broaden the scope, use diverse methodologies, and involve a more heterogeneous population to strengthen external validity and a more comprehensive understanding.

Conclusion and Recommendations/Implications

This study successfully addresses the three primary research questions through comprehensive SEM-PLS analysis, providing clear empirical evidence for the influence of campus climate and self-efficacy on Educational Administration undergraduate students' psychological well-being. Based on data analysis, this study shows that campus climate and self-efficacy have a significant role in students' psychological well-being. First, campus climate is proven to have a positive and significant influence on student psychological well-being. This is supported by the path coefficient (β) of 0.442 with a *T-statistic* value of 3.896 and a *p-value* of 0.000. This value shows that a positive and conducive campus climate has a positive and significant effect, which shows that the more positive the campus climate is perceived, the better the psychological well-being of students. Second, campus climate also has a positive and significant influence on self-efficacy, with a path coefficient (β) of 0.502 with a *T-statistic* of 6.033, and a *p-value* of 0.000. This result confirms a highly positive and significant relationship between campus climate and self-efficacy. This finding confirms that a supportive environment on campus can effectively increase students' belief in their abilities. Third, self-efficacy also has a positive and significant influence on psychological well-being, with a path coefficient (β) of 0.349 β) with a *T-statistic* of 2.106 and a *p-value* of 0.035. This hypothesis is also supported, proving that high self-efficacy correlates with better levels of psychological well-being. The comprehensive structural model confirms that environmental factors (campus climate) serve as stronger predictors of student well-being than individual psychological factors (self-efficacy), challenging purely individualistic approaches to student support. These findings emphasize the fundamental importance of creating positive, supportive, and inclusive campus environments as the primary strategy for enhancing student psychological well-being. For Educational Administration students specifically, who will become future educational leaders, understanding these environmental influences is crucial for their preparation to create positive learning environments for others.

Based on the existing limitations, this study suggests several directions for future studies to gain a more comprehensive understanding. First, it is recommended to explore other variables that may act as mediators or moderators in the relationship between campus climate, self-efficacy, and psychological well-being, such as social support from peers or family and personality characteristics. Secondly, longitudinal research would be very useful to observe changes in the dynamics of the three variables over time, so as to provide a more in-depth picture of the cause-and-effect relationship. Finally, the use of qualitative or mixed-methods methods can provide richer insights by exploring students' subjective experiences in depth, complementing existing quantitative data and providing a more holistic perspective.

Disclosure statement

The author declares that there are no financial or non-financial conflicts of interest in the implementation and writing of this research. The entire process was carried out independently without influence from any party

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