

# The Influence of Learning Motivation and Campus Environment on Student Academic Achievement: A Study in an Indonesian Higher Education Context

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**Abstract:** This study aims to determine the influence of Learning Motivation and Campus Environment on the Academic Achievement of students at the Faculty of Economics and Business, University of Timor. This research employs a quantitative approach using simple and multiple linear regression analysis techniques. Primary data were collected through questionnaires distributed to 95 respondents. The results indicate that both learning motivation and campus environment, partially and simultaneously, have a positive and significant effect on student academic achievement. The R-value for learning motivation was 0.397 with an  $R^2$  of 0.157, while the R-value for campus environment was 0.458 with an  $R^2$  of 0.210. Simultaneously, the R-value was 0.514 and  $R^2$  was 0.264, with a calculated F-value of 16.492 and a significance of 0.000. These findings underscore the critical roles of both internal drive and external context in fostering student success.

**Keywords:** Learning Motivation, Campus Environment, Student Academic Achievemen.

## 1. Introduction

Higher education plays a pivotal role in shaping the quality of human capital, serving as a cornerstone for national development. Within this context, student academic achievement, often quantified by the Grade Point Average (GPA), is a primary indicator of educational success. It reflects a student's ability to absorb, process, and apply knowledge effectively. However, academic achievement is not determined in a vacuum; it is influenced by a complex interplay of internal and external factors that can either facilitate or impede student success (Richardson et al., 2012).

Among the myriad of influencing factors, two have been consistently identified as critical: learning motivation as a key internal driver and the campus environment as a significant external context. Learning motivation encompasses the intrinsic and extrinsic forces that energize and direct students toward academic goals, while the campus environment includes the physical, social, and academic settings that shape the student experience. At the University of Timor, fluctuations in student GPA scores have been observed annually, highlighting a need to systematically investigate the underlying factors contributing to these variations, particularly within the Faculty of Economics and Business. While the individual importance of motivation and environment is well-documented, there is a need for further research that examines their combined influence within specific institutional and cultural contexts.

This study aims to fill this gap by empirically analyzing the partial and simultaneous influence of learning motivation and campus environment on student academic achievement. By understanding the dynamics between these variables, the findings are expected to provide valuable insights for academic administrators and policymakers at the University of Timor and similar institutions, contributing to the development of evidence-based strategies aimed at enhancing the quality of education and student outcomes.

## 2. Literature Review and Hypothesis Development

### 2.1. Academic Achievement

Academic achievement is the measurable outcome of a student's learning process within an educational institution. It is a multidimensional construct typically measured by metrics such as Grade Point Average (GPA), graduation rates, and honors received. According to Slameto (2003), achievement is influenced by a combination of internal factors, including motivation, interests, and innate talents, and external factors, such as the quality of

teaching and the surrounding environment. A robust body of literature confirms that high academic achievement is a strong predictor of future career success and overall life satisfaction (Strenze, 2007).

## 2.2. Learning Motivation

Learning motivation is the internal psychological force that drives an individual to engage in learning activities to achieve academic goals. This motivation can be categorized as intrinsic (driven by internal satisfaction) or extrinsic (driven by external rewards) (Ryan & Deci, 2000). Uno (2008) identifies several key indicators of motivation, including a desire to succeed, a need to learn, future aspirations, the value of rewards, a conducive learning environment, and engaging learning activities. Research consistently demonstrates that students with higher levels of motivation, particularly intrinsic motivation, exhibit greater persistence, deeper engagement with course material, and ultimately, superior academic performance (Slavin, 2018; Taylor et al., 2014).

## 2.3. Campus Environment

The campus environment comprises all the physical and psychosocial elements that constitute the student experience. This includes the physical infrastructure (e.g., libraries, laboratories, classrooms) and the social climate (e.g., relationships with faculty and peers, sense of community). The influential models of student engagement by Astin (1993) and Tinto (1993) both emphasize that a supportive and engaging campus environment is instrumental in fostering student development and academic success. A positive environment enhances student satisfaction, promotes a sense of belonging, and provides the necessary resources for effective learning, thereby directly and indirectly contributing to better academic outcomes (Fraser, 1998).

## 2.4. Hypothesis Development

Based on the theoretical framework and prior empirical evidence, this study posits that both internal motivation and the external campus environment are significant predictors of academic achievement. Students who are highly motivated are more likely to invest the effort required for academic success. Similarly, a supportive campus environment provides the resources and climate necessary for students to thrive. Therefore, the following hypotheses are proposed:

- H<sub>1</sub>: Learning motivation has a positive and significant effect on student academic achievement.
- H<sub>2</sub>: The campus environment has a positive and significant effect on student academic achievement.
- H<sub>3</sub>: Learning motivation and the campus environment simultaneously have a positive and significant effect on student academic achievement.

## 3. Research Methods

This study employed a quantitative, associative research design to investigate the relationships between the variables. The population consisted of all 1,874 active students at the Faculty of Economics and Business, University of Timor, in the year 2024. A purposive sampling technique was used to select a sample of 95 students who met the inclusion criteria of having completed at least two semesters of study. This criterion ensured that respondents had sufficient experience with the campus environment and academic processes.

Primary data was collected using a structured, closed-ended questionnaire based on a Likert scale. The instrument was developed with items corresponding to the indicators for each variable: learning motivation, campus environment, and academic achievement (measured by self-reported GPA). Before dissemination, the instrument's validity was confirmed using Pearson correlation analysis, with all items exceeding the threshold of 0.3. Reliability was established using Cronbach's Alpha, with all scales achieving a coefficient greater than the 0.6 threshold, confirming internal consistency (Huda et al., 2025).

Data analysis was conducted using SPSS version 26. The analytical procedure included several stages: (1) descriptive statistics to summarize respondent demographics and variable scores; (2) classical assumption testing (normality, multicollinearity, heteroscedasticity) to ensure the data was suitable for regression analysis; and (3)

simple and multiple linear regression analyses to test the hypotheses. The significance of partial effects was determined using t-tests, while the simultaneous effect was assessed using an F-test (Huda et al., 2025).

## 4. Result and Discussion

### 4.1. Result

The results of the regression analyses confirmed all three hypotheses.

- Hypothesis 1 (H<sub>1</sub>): The simple linear regression showed that learning motivation had a significant positive effect on academic achievement ( $R = 0.397$ ,  $R^2 = 0.157$ ,  $t = 4.168$ ,  $p < 0.001$ ). This indicates that motivation accounts for 15.7% of the variance in student academic performance. The result strongly supports H<sub>1</sub>.
- Hypothesis 2 (H<sub>2</sub>): Similarly, the campus environment was found to have a significant positive effect on academic achievement ( $R = 0.458$ ,  $R^2 = 0.210$ ,  $t = 4.967$ ,  $p < 0.001$ ). The campus environment explains 21.0% of the variance in academic achievement. This result provides strong support for H<sub>2</sub>.
- Hypothesis 3 (H<sub>3</sub>): The multiple regression analysis revealed that learning motivation and campus environment simultaneously had a significant positive effect on academic achievement ( $R = 0.514$ ,  $R^2 = 0.264$ ,  $F = 16.492$ ,  $p < 0.001$ ). Together, these two variables account for 26.4% of the total variance in academic achievement. This confirms H<sub>3</sub>.

Table 1: Summary of Regression Analysis Results

<i>Model</i>	<i>Predictor(s)</i>	<i>R</i>	<i>R</i> <sup>2</sup>	<i>F-value</i>	<i>t-value</i>	<i>Sig. (p)</i>
1	Learning Motivation	.397	.157	-	4.168	.000
2	Campus Environment	.458	.210	-	4.967	.000
3	Learning Motivation & Campus Environment	.514	.264	16.492	-	.000

*Source: Processed Data from SPSS (2025)*

### 4.2. Discussion

The findings of this study robustly demonstrate that both internal psychological factors (learning motivation) and external contextual factors (campus environment) are significant determinants of student academic success at the University of Timor. The positive influence of learning motivation aligns perfectly with established theories such as Self-Determination Theory, which posits that fulfilling needs for autonomy, competence, and relatedness enhances intrinsic motivation and leads to better performance outcomes (Ryan & Deci, 2000). Our results empirically validate that students who possess a stronger internal drive and clearer academic goals are more likely to succeed.

Furthermore, the significant impact of the campus environment corroborates the foundational work of Astin (1993) and Tinto (1993), which highlights the critical role of student engagement and institutional context. A campus that offers high-quality facilities, supportive faculty-student interactions, and a positive peer culture creates an ecosystem where students feel valued and empowered to learn. This supportive environment likely reduces stress and provides the necessary resources for students to translate their motivation into tangible academic results. The combined effect, explaining 26.4% of the variance, underscores the synergistic relationship between the individual and their environment in shaping educational trajectories.

## 5. Conclusion

This study concludes that learning motivation and campus environment are both positive and significant predictors of academic achievement among students at the Faculty of Economics and Business, University of Timor. When considered together, their combined influence is substantial, accounting for 26.4% of the variance in student performance. These findings have important practical implications. University administrators should adopt a dual-pronged strategy that not only fosters student motivation through counseling and engaging pedagogical practices but also invests in improving the physical and social infrastructure of the campus to create a more conducive learning environment.

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The authors declare that generative AI or AI-assisted technologies were not used in any way to prepare, write, or complete this manuscript. The authors confirm that they are the sole authors of this article and take full responsibility for the content therein, as outlined in COPE recommendations.

## Informed Consent

The authors declare that informed consent was not required as there were no human participants involved.

## Conflict of Interest

The authors declare that there is no conflict of interest.

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