



THE IMPACT OF LEARNING MOTIVATION, SELF-EFFICACY, AND ACADEMIC PROCRASTINATION ON ECONOMICS ACHIEVEMENT

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Abstract

Students' low achievement in economics has become a major concern and is presumed to be influenced by psychological factors, to be specific learning motivation, self-efficacy, and academic procrastination behavior. This study aims to examine the effects of these three variables on students' economics learning outcomes. A quantitative approach with a causal research design was employed. The sample consisted of 206 tenth-grade students of SMAN 4 Sidoarjo selected through simple random sampling. Data were collected using questionnaires and documentation, and subsequently analyzed with SPSS through multiple linear regression analysis. The findings reveal that learning motivation and self-efficacy have positive and statistically significant effects on economics learning outcomes, while academic procrastination shows a negative and significant effect. Simultaneously, the three variables significantly influence learning outcomes and account for 25,2% of the variance, whereas the remaining 74,8% is explained by other factors beyond the research model. The results highlight the importance of strengthening students' learning motivation and self-efficacy, as well as minimizing academic procrastination through effective instructional strategies. This study is limited to the variables examined and to a single school setting, therefore, future research is recommended to incorporate additional variables and involve broader research sites to obtain more comprehensive findings.

Kata Kunci:

Hasil Belajar;
Motivasi ;
BelajarEfikasi Diri;
Prokrastinasi
Akademik

Abstrak

Rendahnya hasil belajar siswa dalam mata pelajaran ekonomi telah menjadi perhatian utama dan diduga dipengaruhi oleh faktor psikologis, khususnya pada motivasi belajar, efikasi diri, dan perilaku prokrastinasi akademik. Penelitian ini bertujuan untuk menguji pengaruh ketiga variabel tersebut terhadap hasil belajar ekonomi siswa. Pendekatan kuantitatif dengan desain penelitian kausal digunakan. Sampel penelitian terdiri dari 206 siswa kelas X SMAN 4 Sidoarjo yang dipilih melalui teknik simple random sampling. Data yang digunakan dikumpulkan menggunakan kuesioner dan dokumentasi, kemudian dianalisis dengan SPSS melalui analisis regresi linier berganda. Temuan menunjukkan bahwa motivasi belajar dan efikasi diri memiliki pengaruh positif dan signifikan secara statistik terhadap hasil belajar ekonomi, sedangkan prokrastinasi akademik menunjukkan pengaruh negatif

signifikan. Secara simultan, ketiga variabel tersebut berpengaruh signifikan terhadap hasil belajar dan menjelaskan 25,2% varians, sedangkan sisanya 74,8% dijelaskan oleh faktor lain diluar model penelitian. Hasil ini menekankan pentingnya memperkuat motivasi belajar dan efikasi diri siswa, yang efektif. Penelitian ini terbatas pada variabel yang diteliti dan pada satu lokasi sekolah, oleh karena itu, penelitian mendatang disarankan untuk memasukkan variabel tambahan serta melibatkan lokasi penelitian yang lebih luas guna memperoleh temuan yang lebih komperhensif.

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INRODUCTION

Education is widely recognized as one of the fundamental pillars in developing high-quality and competitive human resources. Through the educational process, individuals not only acquire knowledge but also cultivate critical thinking skills, creativity, and social competencies essential for facing global challenges. In the context of national development, education is believed to play a crucial role in driving progress and has a direct impact on social advancement and economic growth within a country (Agyei et al., 2024). Effective education creates generations capable of adapting to technological changes and labor market dynamics, thus forming the primary foundation for overall societal welfare.

Low achievement in economics among students is a recurring issue in many senior high schools, including SMAN 4 Sidoarjo. This condition indicates a gap between students' learning potential and the actual economics learning outcomes they achieve. The problem of low learning achievement at SMAN 4 Sidoarjo was identified by the researcher during the 2025 School Field Introduction Program (PLP), conducted from February to June. Through this program, the researcher observed various factors contributing to students' low performance in economics, such as lack of class engagement and inability to apply concepts to real life.

These problems arise from both internal and external influences. Internal factors include learning motivation, maturity and readiness, intelligence, interests and talents, academic behavior, and physical health. External factors involve family background, school environment, community surroundings, and peer influence. However, based on

field observations, internal factors appear to have a more significant role in either improving or decreasing students' economics learning outcomes. Among these internal factors, low learning motivation, suboptimal self-efficacy, and relatively high levels of academic procrastination were found to be particularly influential, often interconnected and exacerbating each other.

Field findings further reveal that the economics achievement of tenth-grade students shows considerable variation and has not met the expected targets. This is evidenced by the midterm examination results, where students' scores remain below the expected average economics score across classes ranges from a high of 68,55 to a low of 33,5. Overall, none of the classes achieved the Minimum Mastery Criteria, indicating that students' learning outcomes in economics remain far below expectations and require urgent intervention.

In this study, Bandura (1986) theory is employed to explain that learning behavior does not occur in isolation but is shaped through reciprocal interactions among personal factors, behavior, and the environment. This theoretical framework provides a foundation for understanding how learning motivation, self-efficacy, and behavioral regulation influence academic achievement, emphasizing the dynamic reciprocal dynamics among these elements.

In line with the overarching framework of this study, the theoretical basis also draws upon Deci and Ryan's theory of learning motivation (as cited in Bingen et al., 2025), which emphasizes that motivation plays a crucial role in students' success in achieving their desired goals. Furthermore, Bandura's theory of self-efficacy (as cited in Zhai & Li, 2025) highlights that higher levels of self-efficacy can enhance motivation, persistence, and ultimately lead to improved learning outcomes sustainably.

On the other hand, Steel's theory of academic procrastination (Chen & Chung, 2025) explains that academic procrastination is not merely a time management issue but is closely related to failures in self-regulation and difficulties in managing negative emotions, which in turn reduce learning effectiveness. Therefore, the integration theory offers a comprehensive theoretical framework for understanding variations in students' academic achievement.

Learning motivation is key factor in determining student' achievement in economics. Motivation functions as an internal and external drive that encourages and individual to achieve desired outcomes (Ryan & Deci, 2000; Srem-Sai et al., 2025). Research by Alhadabi & Karpinski (2020) indicates that positive interactions between intrinsic motivation, environmental support, and self-regulation can significantly improve students' academic performance across various educational levels. Similarly, Schunk & DiBenedetto (2020) emphasize that strong motivation, when aligned with effective social-emotional learning, can enhance student engagement, boost academic self-confidence, and help students manage stress and learning obstacles, including academic procrastination.

Previous studies have shown that the level of motivation plays a decisive role in learning outcomes. Research by Feladi (2022); Kristiani & Pahlevi (2021); Nugroho & Warmi (2022); Prayoga & Rachmawati (2021); Romadhoni et al. (2019); Yeni et al. (2022) indicates that learning motivation positively affects students' academic achievement. Findings from these studies suggest that higher motivation contributes positively to learning outcomes, while insufficient motivation can hinder optimal achievement.

Nevertheless, several studies have reported contrasting findings. Kismurdiani et al. (2022) found that learning motivation does not have a significant effect on academic achievement, whereas Faizin et al. (2022) identified a negative effect. These results suggest that the link between motivation and learning outcomes may be influenced by contextual conditions, individual characteristics, or the presence of other mediating variables.

Besides motivation, self-efficacy also influences students' economics learning outcomes, either supporting or hindering achievement. According to Bandura (as cited in Zeng et al., 2022), self-efficacy refers to an individual's confidence in affects behavior but also shapes thinking, emotional regulation, actions, and self-motivation, significantly impacting learning outcomes. Self-efficacy strengthens students' confidence in facing academic challenges and completing tasks effectively (Surjanti et al., 2020). Previous studies have shown a reciprocal relationship between self-efficacy and learning outcomes. Research by Baduri & Nurrahmah (2024); Fitriani & Pujiastuti (2021); Sari et al. (2021); Sihaloho et al. (2018); Sodik et al. (2024); Yulianto (2019) reported that self-

efficacy contributes positively to learning achievement. Conversely, Juandi et al. (2025) also found that self-efficacy enhances learning outcomes, whereas Jahring & Djidu (2024) observed that higher self-efficacy can sometimes coincide with lower academic performance.

Besides learning motivation and self-efficacy, students' academic behavior also affects learning outcomes. Academic procrastination, defined as the voluntary delay in completing tasks, can negatively impact learning by reducing both the quality and quantity of study time (Steel, 2007). According to Steel (as cited in Chen & Chung, 2025), procrastination is not merely a time management issue but reflects failures in self-regulation and managing negative emotions, which ultimately lower learning effectiveness. Persistent procrastination is a major barrier that significantly reduces academic performance (Perdomo et al., 2022). Previous studies by Andini et al. (2025); Anisa & Ernawati (2018); Makbul & Farida (2023); Pratiwi et al. (2024) confirm that academic procrastination negatively affects student's grades. However, Saranga et al. (2025) found no relationship, indicating that even with increased procrastination, learning outcomes were not adversely affected.

Previous studies reveal research gaps regarding learning motivation, self-efficacy, and academic procrastination in relation to students' achievement. While many findings show consistent effects, some report contrasting results, indicating that these relationships are not yet fully understood. In particular, the combined influence of these variables, especially academic procrastination in high school economics learning, remains underexplored, and studies in the Sidoarjo context are limited. This study addresses these gaps using a quantitative approach to gain a clearer understanding of how learning motivation, self-efficacy, and academic procrastination affect students' learning outcomes.

RESEARCH METHODS

This study was conducted during the first semester of the 2025/2026 academic year. The period was selected because the learning process had progressed in a stable and structured manner, ensuring that students had received sufficient instruction in economics to allow for an accurate assessment of their academic achievement. Another consideration in determining the research period was the availability of complete and

well-documented academic records maintained by the school, which facilitated access to valid and reliable data. The population of this study consisted of all tenth-grade students enrolled in Economics classes. The sample was selected using a probability sampling technique, specifically simple random sampling, to ensure that each member of the population had an equal chance of being included. The sample used consisted of 206 students, determined using the Yamane formula with a 5% margin of error in order to maintain an acceptable level of precision and confidence in the finding. The following presents the research design employed in this study.

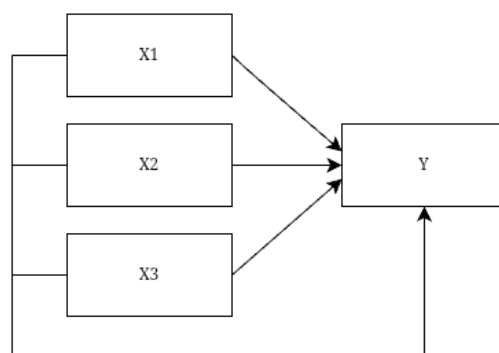


Figure 1 Research Design

The data were analyzed using multiple linear regression to examine the effects of learning motivation, self-efficacy, and academic procrastination on students' achievement in Economics. This method was selected because it allows for the assessment of causal relationships and estimates both partial and simultaneous effects of the independent variables on the dependent variable. Prior to analysis, classical assumption tests-normality, multicollinearity, heteroscedasticity, and linearity-were conducted to ensure the model met statistical requirements. Data were processed using statistical software to ensure accuracy and objectivity. Multiple linear regression was chosen for its ability to explain cause-effect relationships and provide predictive insights.

The analytical model is formulated as a multiple linear regression equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where Y represents students' achievement in Economics, X_1 learning motivation, X_2 self-efficacy, X_3 academic procrastination, α is a the constant, $\beta_1 - \beta_3$ are the

regression coefficients, and e is the error term. The model examines both partial and simultaneous effects of the independent variables on determination (R^2) indicates the proportion of variance explained. The analyzed variables are presented in the following table.

RESULTS AND DISCUSSION

This study was conducted at SMAN 4 Sidoarjo, targeting a population of 424 tenth-grade students, from which a sample of 206 students was selected using simple random sampling. This sampling technique was chosen to ensure representativeness and minimize selection bias, allowing each student an equal probability of inclusion while maintaining statistical validity. The independent variables examined include learning motivation, self-efficacy, and academic procrastination, whereas the dependent variable is students' achievement in Economics. These variables were selected based on their established theoretical relevance to academic performance in educational psychology literature.

The research instruments underwent rigorous testing for validity and reliability using SPSS, through a pilot trial involving 30 students from the population who were excluded from the final sample. This preliminary testing phase was essential to refine the instruments, confirm their measurement accuracy, and establish Cronbach's alpha coefficients above the acceptable threshold of 0,70, thereby ensuring robust psychometric properties prior to full-scale data collection.

Questionnaires were distributed efficiently via class WhatsApp groups, utilizing a five-point Likert scale adapted from (Sugiyono, 2023). This digital distribution method leveraged the students' familiarity with mobile platforms, maximizing response rates while minimizing logistical challenges in a school setting. Students' achievement data were sourced from Authentic Assessment (ASTS) and Midterm Examination (UTS) scores, providing objective, standardized measures of academic performance directly from school records.

The analysis was designed to rigorously examine the relationships between the independent and dependent variables, determine the statistical significance of these effects, and contextualize the findings against prior empirical studies. Specifically, it

sought to quantify both partial (individual) and simultaneous (combined) influences, offering insights into the predictive power of the model.

Prior to conducting the multiple linear regression analysis, the data underwent normality testing to confirm a normal distribution, a fundamental prerequisite for parametric statistical inference. Normality was assessed using the Kolmogorov-Smirnov test implemented in SPSS, with results evaluated against a significance level of $P > 0,05$ to validate the appropriateness of subsequent regression procedures.

Table 1. Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		206
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	18.57497742
Most Extreme Differences	Absolute	.053
	Positive	.037
	Negative	-.053
Test Statistic		.053
Asymp. Sig. (2-tailed)		.200 ^{c,d}
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

Source: Processed Data by the Researcher (2026)

The results of the normality test indicate that all research variables—both the independent variables (learning motivation, self-efficacy, and academic procrastination) and the dependent variable (Economics achievement)—have significance values greater than 0,05. This outcome confirms that the research data are normally distributed, satisfying a critical prerequisite for parametric statistical analyses. Based on these findings, the normality assumption is fully met, rendering the data appropriate for subsequent advanced statistical procedures, including multiple linear regression and hypothesis testing. Normal distribution ensures the validity of p-values, confidence

intervals, and overall inferential conclusions, thereby enhancing the reliability of the study's empirical results.

Following the successful confirmation of normality, a linearity test was subsequently conducted to verify whether the relationships between each independent variable and the dependent variable were linear. Linearity is fundamental to regression models, as it assumes a straight-line relationship where changes in the predictors produce proportional changes in the outcome variable. Deviations from linearity could bias coefficient estimates and undermine causal interpretations.

The specific linearity assessments included: the linearity test of learning motivation on Economics achievement, the linearity test of self-efficacy on Economics achievement, and the linearity test of academic procrastination on Economics achievement. These targeted tests evaluated the functional form of each predictor-outcome relationship individually, using ANOVA-based significance testing in SPSS to determine if linear models adequately captured the data patterns without systematic residuals

Table 2. linearity test of learning motivation on Economics achievement

			Sum of Squares	Df	Mean Square	F	Sig.
Y * X1	Between Groups	(Combined)	12650.192	22	575.009	1.263	.202
		Linearity	7.872	1	7.872	.017	.896
		Deviation from	12642.320		602.015	1.322	.166
		Linearity		21			
Within Groups			83327.308	183	455.340		
Total			95977.500	205			

Source : Processed Data by the Researcher (2026)

The results of the test above show a Sig. (Deviation from Linearity) value greater than 0.05, namely 0,166. This indicates that the relationship between the Learning Motivation variable and Economics learning outcomes is linear and does not exhibit any deviations. Therefore, it can be concluded that there is a linear relationship between the Learning Motivation variable and Economics learning outcomes, allowing this variable to be used in the regression analysis of this study.

Table 3. linearity test of self-efficacy on Economics achievement

		Sum of Squares	Df	Mean Square	F	Sig.
Y * X2	Between Groups (Combined)		6665.649	23	289.811	.591
	Linearity		145.631	1	145.631	.297
	Deviation from Linearity		6520.018	22	296.364	.604
Within Groups			89311.851	183	490.724	
Total			95977.500	205		

Source : Processed Data by the Researcher (2026)

The results of the test above show a Sig. (Deviation from Linearity) value greater than 0,05, namely 0,918. This indicates that the correlation between the self-efficacy variable and Economics learning outcomes does not deviate from a linear relationship. Therefore, it can be concluded that there is a linear relationship between the self-efficacy variable and Economics learning outcomes, allowing this variable to be used in the regression analysis of this study.

Table 4. linearity test of academic procrastination on Economics achievement

		Sum of Squares	Df	Mean Square	F	Sig.
Y * X3	Between Groups (Combined)		25822.602	22	1173.755	3.062
	Linearity		17473.826	1	17473.826	45.581
	Deviation from Linearity		8348.776	21	397.561	1.037
Within Groups			70154.898	183	383.360	
Total			95977.500	205		

Source : Processed Data by the Researcher (2026)

The test results above between the Academic Procrastination Behavior variable (X_3) and Economics learning outcomes show a Sig. (Deviation from Linearity) value greater than 0,05, namely 0.421. Thus, the relationship between the Academic Procrastination Behavior variable and Economics learning outcomes does not deviate from a linear relationship. Consequently, there is a linear relationship between academic procrastination behavior and Economics learning outcomes. Therefore, this variable can be used in the regression analysis of this study.

After testing the linear relationships of the data, a heteroskedasticity test was conducted. This test was performed to examine whether the residual variance between observations in the regression model differs. A good regression model should have constant residual variance, or in other words, exhibit homoscedasticity.

Table 5. heteroskedasticity test

Coefficients ^a					
Model	Unstandardized Coefficients		Std. Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	17.321	8.546		2.027	.044
X1	.374	.190	.146	1.965	.051
X2	.007	.180	.003	.038	.969
X3	-.423	.232	-.159	-1.818	.071

a. Dependent Variable: ABS_RES

Source : Processed Data by the Researcher (2026)

The heteroskedasticity test output above, employing the Glejser test, reveals that the significance values for each variable exceed 0,05 (specifically, all p-values > 0,05). This outcome confirms the absence of heteroskedasticity symptoms in the regression model of this study. The Glejser test, which regresses the absolute residuals against each independent variable, is particularly robust for detecting variance instability—a common violation that could otherwise bias standard errors, inflate Type I error rates, and undermine the reliability of t-statistics and F-tests. By satisfying this classical assumption, the model demonstrates homoscedasticity, ensuring that the variance of residuals remains constant across all levels of the predicted dependent variable (Economics achievement). This validation strengthens the overall integrity of the multiple linear regression analysis, supporting unbiased coefficient estimates and valid hypothesis testing throughout the study.

After confirming no heteroskedasticity, a multicollinearity test was conducted to check correlations among independent variables. High multicollinearity can inflate standard errors and destabilize coefficients. VIF < 10 and Tolerance > 0,10 indicate no issues. The following presents the multicollinearity test results.

Table 6. Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1	.872	1.147
	X2	.705	1.419
	X3	.628	1.593
a. Dependent Variable: Y			

Source : Processed Data by the Researcher (2026)

The multicollinearity test results show that learning motivation (X_1), self-efficacy (X_2), and academic procrastination (X_3) all have Tolerance values $> 0,10$ and VIF < 10 . These figures confirm low inter-correlation among independent variables, validating the regression model's quality and stability for reliable coefficient interpretation.

After the previous tests, hypothesis testing was conducted using the t-test to examine the effects of the independent variables on the dependent variable partially.

Table 7. T-Test

Model	B	Sig.
(Constant)	164,267	0,000
X1	0,835	0,005
X2	1,116	0,000
X2	-3,067	0,000
Dependent Variable: Economics Achievement		

Source : Processed Data by the Researcher (2026)

The t-test output provides detailed insights into the individual (partial) effects of each independent variable on the dependent variable (Economics achievement), enabling evaluation of their unique contributions while controlling for other predictors:

1. Hypothesis 1 (H1)

The t-test results reveal a significance value of 0,005 ($< 0,05$), t-count of 2,813 ($> t$ -table 1,971, $\alpha = 0,05$), and a positive regression coefficient (B) of 0,835. These findings confirm that higher learning motivation significantly enhances Economics achievement ($\beta = 0,835$, $p < 0,05$). Thus, H_1 is accepted, demonstrating learning motivation's positive and statistically significant partial contribution to students' Economics achievement.

2. Hypothesis 2 (H2)

The t-test analysis yields a significance value of 0,000 ($< 0,05$), t-count of 3,987 ($> t$ -table 1,971, $\alpha = 0,05$), and a positive regression coefficient (B) of 1,116. These results confirm that higher self-efficacy significantly enhances students' Economics achievement ($\beta = 1,116$, $p < 0,001$). Therefore, H_2 is accepted, establishing self-efficacy's positive and statistically significant partial effect on learning outcomes.

3. Hypothesis 3 (H3)

The t-test results show a significance value of 0,000 ($< 0,05$), t-count of -8,466 (absolute value $|t| = 8,466 > t$ -table 1,971, $\alpha = 0,05$), and a negative regression coefficient (B) of -3,067. These findings confirm that higher academic procrastination significantly reduces Economics achievement ($\beta = -3,067$, $p < 0,001$). Thus, H_3 is accepted, demonstrating academic procrastination's significant negative partial effect on students' learning outcomes.

After conducting the t-test, an F-test was performed to examine the simultaneous effect of the independent variables on the dependent variable.

Table 8. F-Test

Model	Sum of Squares	Df	Mean Square	F	Sig.
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Regression	25246,394	3	8415,465	24,034	0,000
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Source : Processed Data by the Researcher (2026)

The test results show that learning motivation (X1), self-efficacy (X2), and academic procrastination (X3) simultaneously affect Economics achievement (Y) with a significance value of $0,000 < 0,05$ and $F\text{-count } 24,034 > F\text{-table } 2,65$. Thus, H4 is accepted, indicating a significant simultaneous effect of the three independent variables on students' Economics achievement.

After conducting the t-test and F-test, the coefficient of determination (R^2) test was performed to determine the extent to which the independent variables collectively influence the dependent variable.

Table 9. Coefficient Of Determination (R^2) Test

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.513 ^a	.263	.252	18.71240

a. Predictors: (Constant), X3, X1, X2

Source : Processed Data by the Researcher (2026)

The output show an Adjusted R^2 value of 0,252, indicating that learning motivation (X1), self-efficacy (X2), and academic procrastination (X3) jointly explain 25,2% of the variance in Economics achievement (Y), while the remaining 74,8% is influenced by other variables not included in the model.

Subsequently, multiple linear regression analysis was conducted to determine the significance of the effect of variable X on variable Y. this method also enables the researcher to identify the independent variable that has the most significant influence on the dependent variable. The regression results are presented as follows.

Table 10. Multiple Linear Regression

Model	Unstandardized Coefficients	Std Coefficients	T	Sig.
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	B	Std. Error	Beta		
1 (Constant)	164.267	13.322		12.330	.000
X1	.835	.297	.182	2.812	.005
X2	1.116	.280	.287	3.987	.000
X3	-3.067	.362	-.645	-8.466	.000

a. Dependent Variable: Y

Source : Processed Data by the Researcher (2026)

From the output above, the regression equation obtained is as follow:

$$Y = 164,267 + 0,835X_1 + 1,116X_2 - 3,067X_3 + e$$

The results of the regression analysis are described as follows:

1. Learning motivation (X1) and Economics Achievement (Y)

Learning motivation has a coefficient of 0,835 with a significance value of 0,005 (<0,05), indicating a significant positive effect on Economics achievement. This means that higher learning motivation is associated with higher student achievement, and vice versa.

2. Self-Efficacy (X2) and Economics Achievement (Y)

self-efficacy shows a coefficient of 1,166 with a significance value of 0,000 (<0,05), indicating a significant positive relationship. Thus, an increase in self-efficacy leads to higher Economics achievement.

3. Academic Procrastination (X3) and Economics Achievement (Y)

Academic procrastination has a coefficient of -3,067 with a significance value of 0,000 (<0,05), indicating a significant negative effect. This suggests that higher levels of procrastination reduce Economics achievement, whereas lower procrastination is associated with better learning outcomes.

The findings indicate that learning motivation has a positive and significant effect on students' Economics achievement in Grade X at SMAN 4 Sidoarjo ($\beta = 0,835$; Sig. = 0,005 < 0,05). This suggests that higher learning motivation leads to better academic outcomes. These results are consistent with Mariyana et al. (2024) who reported a positive effect of 37,9% and Kristiani & Pahlevi (2021) who also found a significant

positive relationship. However, the findings differ from Kismurdiani et al. (2022) who found no effect, and Faizin et al. (2022) who reported a negative relationship. The results support Social Cognitive Theory (SCT) proposed by Albert Bandura (1986), particularly the concept of reciprocal determinism, where proposal factors such as motivation influence learning behavior and academic achievement. SCT also emphasizes the role of self-efficacy and a supportive learning environment in strengthening student motivation (Marlina & Sholehun, 2021).

Self-efficacy was also found to have a positive and significant effect on Economics achievement ($\beta = 1,166$; Sig. = $0,000 < 0,05$). This indicates that students with higher self-efficacy tend to achieve better learning outcomes. The findings align with Fitriani & Pujiastuti (2021) and Rachmawati & Nurlaili (2024) although they contrast with Jahring & Djidu (2024) who reported a negative effect. Within the SCT framework, self-efficacy influences how students approach academic challenges. Bandura (as cited in Usman et al., 2025) identified three dimensions of self-efficacy: magnitude, generality, and strength. Furthermore, self-efficacy supports self-regulation, including effective time management (Juandi et al., 2025). Conversely, low self-efficacy may lead to anxiety, doubt, and procrastination, ultimately reducing academic performance.

In contrast, academic procrastination behavior has a negative and significant effect on Economics achievement ($\beta = -3,067$; Sig. = $0,005 < 0,05$). Higher levels of procrastination are associated with lower academic outcomes. This finding is consistent with Sparfeldt & Schwabe (2024) and Andini et al. (2025) who reported an effect of 29,7% and Makbul & Farida (2023). From the SCT perspective, procrastination reflects weak self-regulation and low self-efficacy, which hinder effective learning and reduce academic readiness.

Simultaneously, learning motivation, self-efficacy, and academic procrastination significantly influence Economics achievement (Sig. = $0,000 < 0,05$; $F = 24,034 > 2,65$). The Adjusted R^2 value of 0,252 indicates that these variables collectively explain 25,2% of the variance in learning outcomes. Partially, motivation and self-efficacy function as driving factors, while procrastination acts as an inhibiting factor. These findings support Sariwulan & Pujiastuti (2019) and further reinforce Bandura (1986) Social Cognitive Theory, which emphasizes that academic achievement is shaped by the

interaction of personal, behavioral, and environmental factors. Therefore, improving students' Economics achievement requires attention not only to cognitive ability but also to motivation, self-belief, behavioral regulation, and supportive learning environments.

Limitasi Penelitian

This study has several limitations. It only involves 206 tenth-grade students at SMAN 4 Sidoarjo, so the results may not apply to other grades, schools, or regions. The research focuses on three psychological variables—learning motivation, self-efficacy, and academic procrastination—which together explain only 25.2% of the variance in Economics achievement ($R^2 = 0.252$), leaving 74.8% to other unmeasured factors such as teaching quality, socioeconomic background, or prior knowledge. Data were collected through self-reported questionnaires, which may be affected by social-desirability bias or inaccurate recall, even though the instruments were tested for validity and reliability. The study uses a cross-sectional design from the first semester of 2025/2026, so it captures a single point in time rather than long-term patterns or clear causal direction. Finally, performance data from ASTS and UTS scores, along with Likert-scale measures, may not fully reflect the complexity of students' learning experiences. Future studies are suggested to adopt longitudinal designs, broader samples, additional variables, and mixed methods for richer findings.

Novelty Penelitian

This study brings in several fresh points. It looks at how motivation to learn, students' belief in their own abilities, and academic procrastination work together to affect Economics achievement in an Indonesian senior high school (SMAN 4 Sidoarjo), an area that has not been heavily explored before. Using a sample of 206 tenth-grade students selected through simple random sampling, the study estimates both the combined and individual effects of these three variables, showing they explain 25,2% of the variation in achievement, while the rest (74,8%) is shaped by other unmeasured factors. By applying standard assumption tests (normality, linearity, multicollinearity, and heteroskedasticity), the analysis is more methodologically solid, especially in a local school context. At the same time, focusing on procrastination in high-school Economics

adds practical empirical support to the idea that delaying academic tasks tends to lower learning outcomes in this subject-area setting.

CONCLUSIONS AND SUGGESTIONS

This study shows that learning motivation, self-efficacy, and academic procrastination significantly influence the Economics achievement of Grade X students at SMAN 4 Sidoarjo, both individually and together. Higher learning motivation and stronger self-efficacy lead to better academic performance, as they increase students' engagement, persistence, and confidence in managing their learning. In contrast, higher academic procrastination reduces achievement by disrupting study routines and limiting time for understanding and practice. When these three factors are combined, students achieve their best results when they have strong motivation and self-efficacy while keeping procrastination low. Schools and teachers should therefore support students by strengthening motivation and self-confidence, and by helping them manage time, set goals, and avoid delaying their learning tasks.

AUTHOR CONTRIBUTION STATEMENT

Dalam pernyataan kontribusi penulis pada suatu artikel penelitian, harus dijelaskan secara spesifik peran masing-masing penulis dalam keseluruhan proses penelitian dan penulisan artikel. Ini mencakup, tetapi tidak terbatas pada, ide atau perumusan masalah, perancangan metode, pengumpulan dan analisis data, interpretasi hasil, penulisan draf awal, revisi naskah, hingga persetujuan akhir untuk publikasi. Pernyataan ini bertujuan untuk memastikan transparansi kontribusi, mencegah adanya klaim kepenulisan yang tidak sah, serta menghargai keterlibatan nyata dari setiap individu yang tercantum sebagai penulis.

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