



STUDENTS' HIGHER EDUCATION INTEREST FROM AN ECONOMIC PERSPECTIVE: THE ROLES OF MOTIVATION, LEARNING CULTURE, SELF-EFFICACY, AND ACHIEVEMENT NEEDS

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Article History

Received : 23/04/2026

Revised : 24/08/2026

Accepted : 19/09/2026

Keywords:

Higher education aspirations, Educational investment, Human capital, Learning motivation, Learning culture, Self-efficacy, Need for achievement.

Abstract. The interest in continuing studies is a crucial aspect of improving the quality of human resources. Internal factors such as learning motivation, learning culture, and self-efficacy are believed to play a role in shaping this interest. In addition, the need for achievement is also expected to be a mediating variable in the relationship between these factors and the interest in continuing education. The purpose of this study is to determine the influence of learning motivation, learning culture, self-efficacy, and the need achievement on the interest in continuing studies at the university level. This study was conducted in high schools in the city of Samarinda. The population in this study consisted of 1,640 twelfth-grade students. The sample was selected using proportional random sampling, comprising 410 respondents. Data collection methods included questionnaires, interviews, and documentation. Data analysis utilized CFA. Data were analyzed using descriptive and inferential statistical techniques. Model fit testing was performed using SEM with the LISREL program. The results of this study are: (1) Learning culture and self-efficacy have a positive and significant influence on the interest in continuing studies, whereas learning motivation and the need for achievement do not influence the interest in continuing studies. (2) Learning motivation, learning culture, and self-efficacy influence the need for achievement. (3) Learning motivation, learning culture, and self-efficacy do not influence the desire to continue one's studies through the need to achieve. This study concludes that learning culture and self-efficacy have a significant influence on the desire to continue one's studies.

How to Cite: Fitria, U., & Kartini, E. (2026). STUDENTS' HIGHER EDUCATION INTEREST FROM AN ECONOMIC PERSPECTIVE: THE ROLES OF MOTIVATION, LEARNING CULTURE, SELF-EFFICACY, AND ACHIEVEMENT NEEDS. *Prima Magistra: Jurnal Ilmiah Kependidikan*, 7(4), 735-750. <https://doi.org/10.37478/jpm.v7i4.7891>

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Publisher:

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INTRODUCTION

Higher education is a form of human capital investment with the potential to increase individuals' productivity, income, employment opportunities and socio-economic mobility; consequently, students' decisions to pursue further study have economic implications for both individuals and society (Huang et al., 2022; Somani, 2021). Empirical evidence shows that higher education provides substantial economic benefits; in China, the expansion of higher education has yielded positive returns to education, whilst in developing countries, higher education increases the chances of securing paid employment and raises wages (Huang et al., 2022; Somani, 2021). However, investment in education is not always viewed as attractive by all students, as such decisions require individuals and families to consider the cost of education, the cost of living, the opportunity cost of entering the labour market, the risk of securing employment after graduation, and the ability to finance their education (Bernal et al., 2024; Tomaszewski et al., 2025). Consequently, the research question underpinning this study is no longer whether higher education provides economic benefits, but why students facing relatively similar educational opportunities and learning environments may exhibit differing levels of interest in investing in higher education. This issue highlights the need to elucidate the non-economic factors that shape students' perceptions, readiness and orientation prior to their higher education decisions being finalised.

Previous research has addressed a significant part of this issue by demonstrating that interest in, aspirations for, and participation in higher education are influenced by socio-economic

conditions, family background, the school environment, and individual characteristics. In Australia, students from low socio-economic backgrounds have different expectations regarding higher education compared to those from high socio-economic groups, whilst student engagement and teachers' expectations also shape these expectations (Tomaszewski et al., 2021). More recent evidence suggests that parents' socio-economic and educational status remains associated with university participation even after accounting for school achievement (Tomaszewski et al., 2025). Research in the United States has also shown that aspirations, individual beliefs and self-efficacy are associated with educational pathways after secondary school, whilst low educational expectations are linked to a lower likelihood of seeking information, applying for and entering higher education (Adamuti-Trache, 2022; Gong & Toutkoushian, 2024). In China, educational aspirations have also been linked to individual, family and peer factors, as well as the quality of social relationships (Chen et al., 2023), whilst in Colombia, uncertainty regarding financial support has been shown to reduce preferences for higher education, particularly amongst low-income students (Bernal et al., 2024). Thus, previous research has sufficiently demonstrated that economic conditions, family resources, aspirations, the social environment, and individual characteristics are important predictors of interest in or participation in higher education.

However, a key aspect of the issue remains unresolved: namely, how psychological factors and the learning environment interact to shape interest in higher education, and through which psychological mechanisms these influences operate. Most previous research has identified socio-economic status, financial aid, academic achievement, aspirations, or family support as determinants of higher education, but these factors have more often been analysed in isolation (Bernal et al., 2024; Tomaszewski et al., 2025). Research on self-efficacy has demonstrated its link to educational aspirations and pathways but has not yet adequately explained how self-efficacy translates into an achievement orientation that subsequently drives interest in investing in education (Adamuti-Trache, 2022). Similarly, research on the school environment and college-going culture indicates that educational culture and support can enhance aspirations and decisions to pursue further study (Bryan et al., 2022; Tomaszewski et al., 2021), but has not yet extensively integrated learning culture with motivation, self-efficacy, and the need for achievement within a single model. The literature on motivation and achievement has also demonstrated links between motivation, self-efficacy, achievement goals and academic performance (Howard et al., 2021; Vu et al., 2022; Li et al., 2023), but these relationships generally stop at academic outcomes and have not specifically explained whether the need for achievement acts as a mechanism linking psychological resources and learning culture to an interest in investing in higher education. In other words, the literature has addressed the question 'which factors are associated with aspirations for or participation in higher education?', but has not yet fully answered 'how do motivation, learning culture and self-efficacy collectively shape interest in higher education through the need for achievement within the context of human capital investment decisions?'

This disparity is significant from both a theoretical and empirical perspective, as the decision to pursue higher education cannot be explained solely by economic rationality or psychological characteristics in isolation. From an economic perspective, higher education is an investment whose benefits are realised in the future, whilst the costs and opportunity costs must be borne in the present (Huang et al., 2022; Somani, 2021). From a psychological perspective, this decision is also influenced by beliefs about one's own abilities, motivation, achievement orientation, and learning experiences (Adamuti-Trache, 2022; Vu et al., 2022). This study specifically addresses this unanswered gap by testing an integrated model that positions learning motivation, learning culture, and self-efficacy as antecedents, the need for achievement as a mediating mechanism, and interest in pursuing further study as the outcome. This model enables the study not only to test whether each factor is associated with interest in higher education, but also to test whether these effects operate through the formation of the need for achievement. Thus, this study bridges the gap between the educational economics literature, which emphasises the costs and benefits of education, and the educational psychology literature, which emphasises motivation, self-efficacy, and achievement.

The novelty of this study lies in the integration of the human capital investment perspective



with psychological mechanisms and the learning environment in explaining students' interest in higher education. Unlike previous studies, which primarily treated economic conditions as external determinants or motivation and self-efficacy as predictors of academic outcomes, this study examines whether learning motivation, learning culture and self-efficacy shape the need for achievement, which in turn contributes to the interest in pursuing further studies. Specifically, this study addresses unresolved issues in previous research by testing ten direct and indirect relationships: the influence of motivation, learning culture and self-efficacy on the interest in pursuing further studies; the influence of these three factors on the need for achievement; the influence of the need for achievement on interest; and the mediating role of the need for achievement in each of these relationships. With this approach, the study is expected to provide a more comprehensive explanation of why students have varying levels of readiness and interest in treating higher education as an investment in human capital, whilst also demonstrating whether psychological factors and learning culture can account for variations in interest that cannot be fully explained by socio-economic conditions and financial factors (Bernal et al., 2024; Tomaszewski et al., 2025). In practical terms, the research findings can serve as a basis for schools and policymakers to design interventions that not only enhance motivation and academic achievement, but also foster a culture of learning, self-efficacy, a achievement orientation, and access to information and support that enable students to view higher education as a worthwhile investment, both academically and economically.

RESEARCH METHODS

This study is an explanatory study using a quantitative approach via a survey method, aimed at testing previously formulated hypotheses. The focus of the study is to analyze the influence of learning motivation, learning culture, and self-efficacy on the need for achievement. In this study, learning motivation, learning culture, and self-efficacy serve as independent variables, learning motivation as the dependent variable, and the need for achievement as the mediating variable. The study was conducted at several high schools in Samarinda City, namely State High School 3, State High School 4, State High School 8, State High School 14, and State High School 16.

The study population comprised all 12th-grade students, totaling 1,562 students. The sample was determined using proportional random sampling and consisted of 410 respondents based on the Slovin formula. Data were collected via a questionnaire distributed directly in printed form. The instrument used a Likert scale with four response options: Always (score 4), Often (score 3), Rarely (score 2), and Never (score 1). The use of these four categories has the potential to limit response variation and reduce sensitivity in capturing more subtle differences in attitudes. The research instrument design is presented in Table 1.

Table 1. Instrument Grid

No	Variable	Indicator Total
1	Learning Motivation (MB)	Perseverance in learning, Tenacious in the face of adversity, Interest and sharpness of attention in learning
2	Learning Culture (BB)	Environmental conditions, Exercise, Readiness/availability
3	Self Efficacy (ED)	Confidence in personal Abilities, Having a leadership spirit, Emotional condition
4	Need for Achievement (NA)	Able to take on new tasks that are more difficult than previous tasks, Enjoy tasks for which you have personal responsibility, Likes tasks that have feedback, Doing your best at a difficult task, Strive to do better than others, Achievement drive
5	Interest in Continuing Studies (MMS)	Feelings of pleasure, Student interest, Greater attention, Student engagement

The instrument framework in this study was developed as a guide for creating measurement tools used to collect data related to five main variables: Learning Motivation (LM), Learning Culture (LC), Self-Efficacy (SE), Need for Achievement (NA), and Interest in Continuing Education (ICE). Each variable is broken down into a number of more detailed indicators, and each indicator is measured through several items in the instrument. The purpose of developing

this framework is to ensure the representativeness of the constructs being measured while maintaining the content validity of the instrument. The development process adheres to the principles of good research instrument design, including content validity, systematic organization, and the comprehensiveness of the measured aspects. Consequently, the resulting instrument is expected to collect data accurately and consistently, thereby addressing the research questions and achieving the study's objectives.

Instrument validity was tested using the Kaiser-Meyer-Olkin (KMO) method and Bartlett's Sphericity Test to assess the suitability of the data for factor analysis. The results of the validity tests for each variable are presented in Table 2. Based on these results, the KMO values for each variable are as follows: Learning Motivation (LM) at 0.625, Learning Culture (LC) at 0.739, Self-Efficacy (SE) at 0.643, Need for Achievement (NA) at 0.617, and Interest in Continuing Studies (ICS) at 0.773. KMO values exceeding 0.60 indicate that the data met the criteria for factor analysis; therefore, all variables in this study were deemed suitable. Additionally, the results of Bartlett's Sphericity Test showed statistical significance for all variables (BB: $p = 0.004$; MB, ED, NA, MMS: $p = 0.000$), indicating to ensure that the research instruments complied with standard criteria, reliability testing was performed for each latent variable. The results of these tests—covering the total factor loadings (Σ SLF), Construct Reliability (CR), and critical factor loadings—are summarized in Table 2. Significant relationships among items within each variable, so the data are deemed suitable for further analysis using factor analysis.

Table 2. Validity Test of Research Instruments

Table 21. Validity Test of Research Instruments						
KMO and Bartlett's Test		Learning Motivation	Learning Culture	Self Efficacy	Need of Achievement	Interest in Continuing Studies
		(MB)	(BB)	(ED)	(NA)	(MMS)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,625	0,739	0,643	0,617	0,773
Bartlett's Test of Sphericity	Approx. Chi-Square	58,819	42,525	46,519	61,366	85,823
	Df	15	21	15	15	15
	Sig	0,000	0,004	0,000	0,000	0,000

To ensure that the research instruments complied with standard criteria, reliability testing was performed for each latent variable. The results of these tests—covering the total factor loadings (Σ SLF), Construct Reliability (CR), and critical factor loadings—are summarized in Table 3.

Table 3. Reliability Test of Research Instruments

Latent Variabel	Σ SLF	Construct Reliability (CR)	Critical Loading Factor	Decision
Learning Motivation (MB)	4,57	0,89	0,7	Reliable
Learning Culture (BB)	3,66	0,86	0,7	Reliable
Self-efficacy (ED)	4,37	0,87	0,7	Reliable
Need for Achievement (NA)	3,87	0,88	0,7	Reliable
Interest in Continuing Studies (MMS)	4,48	0,88	0,7	Reliable

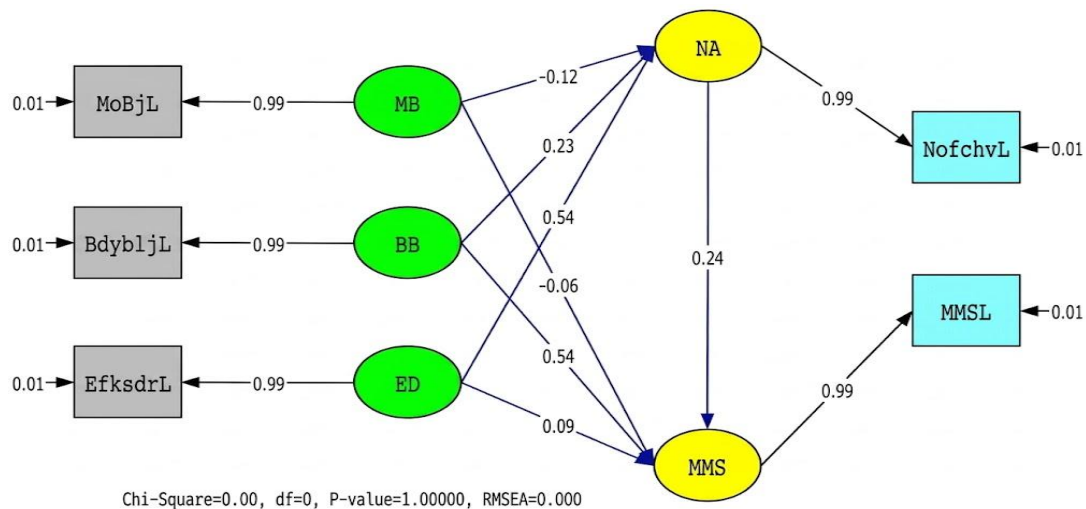
The reliability of each latent variable was analyzed based on the Construct Reliability (CR) score and the sum of Standardized Factor Loadings (Σ SLF). A construct is considered reliable if it has a CR score of ≥ 0.70 and factor loadings for each indicator of ≥ 0.70 . Based on the analysis results in Table 3 above, all latent variables in this model demonstrate adequate reliability. The Learning Motivation (MB) variable obtained a CR value of 0.89 with a total SLF of 4.57, indicating high internal consistency among its indicators. Similarly, the Learning Culture (LC) variable obtained a CR value of 0.86 with a total SLF of 3.66, while Self-Efficacy (SE) obtained a CR value of 0.87 with a total SLF of 4.37, indicating that these constructs are considered reliable. Additionally, the Achievement Motivation (AM) and Interest in Continuing Education (ICE) variables also demonstrated good reliability with a CR value of 0.88. Although the total SLF for

these two constructs was 3.87 for AM and 4.48 for ICE. The factor loadings for each indicator still met the minimum threshold of 0.70, so both constructs can still be considered reliable and suitable for further analysis.

The data were analyzed using quantitative descriptive methods, specifically Structural Equation Modeling (SEM). The SEM analysis process itself must go through at least five stages (Latan & Ramli, 2013), namely: 1) model specification; 2) model identification; 3) model estimation; 4) model evaluation; 5) model modification or redesign.

RESULTS AND DISCUSSION

The results of the structural model testing, based on standardized coefficients, are presented in Figure 1. This figure illustrates the relationships among variables, along with the path coefficient values that indicate the strength and direction of influence between the constructs in the research model.



Information: MB = Learning Motivation; BB = Learning Culture; ED = Self-efficacy; NA = Need or Achievement; MMS = Interest in Continuing Studies

Figure 1. Research Structural Model Test Results (Standard Coefficient)

Based on the results of the SEM analysis shown in Figure 1, it is known that the model has an excellent fit, indicated by the Chi-Square value = 0.00, df = 0, P-value = 1.00000, and RMSEA = 0.000. This indicates that the data fits perfectly with the model built. The model examines the relationship between three exogenous constructs, namely MB (Learning Motivation), BB (Learning Culture), and ED (Self-Efficacy) to two endogenous constructs, namely NA (Need for Achievement) and MMS (Interest in Continuing Studies). The following is a description of the results:

1. Influence on Need for Achievement (NA):
 - a. MB has a negative effect on NA with a standardized coefficient of -0.12.
 - b. BB shows a positive effect on NA with a coefficient of 0.23.
 - c. ED has the strongest influence on NA with a coefficient of 0.54.
2. Effect on Interest in Continuing Studies (MMS):
 - a. MB shows a negative effect on MMS with a coefficient of -0.06, indicating that learning motivation does not significantly encourage the intention to continue studies.
 - b. BB has the strongest positive effect on MMS with a coefficient of 0.56.
 - c. ED shows a positive but weak effect on MMS with a coefficient of 0.09.
 - d. Meanwhile, NA has a positive effect on MMS with a coefficient of 0.24, indicating that the need for achievement contributes to increasing interest in continuing studies, although not as the main predictor.

The results of the structural model testing based on the t-value used to measure the significance of the relationship between latent variables in this study are shown in Figure 2.

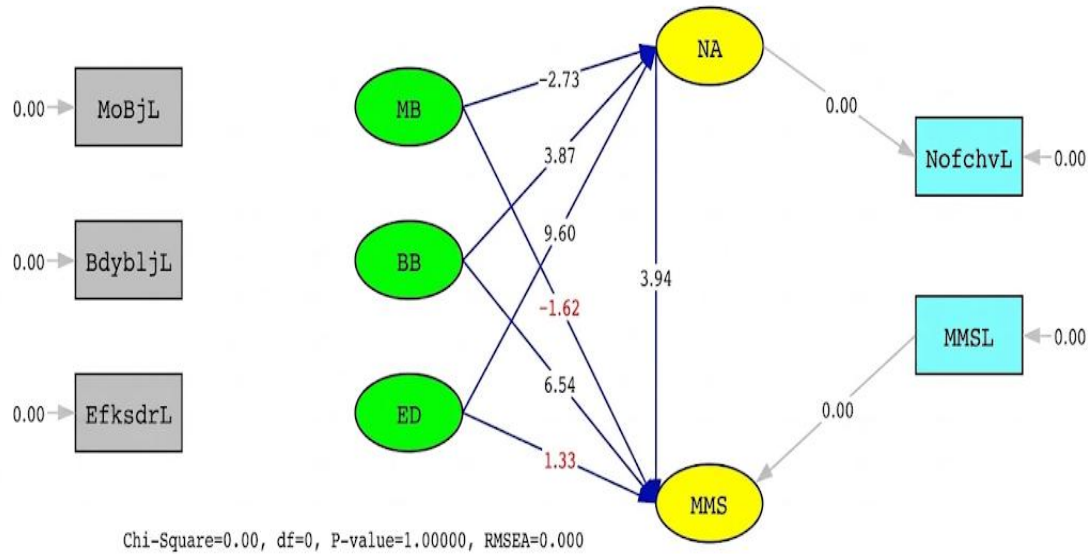


Figure 2. Research Structural Model Test Results (t value)

The path coefficients and t-test values in Figure 2 can be explained as follows:

1. Relationship of Exogenous Variables to NA (Need for Achievement)
 - a. MB → NA: The path coefficient is -2.73, indicating a negative relationship. This means that an increase in learning motivation (MB) tends to decrease the need for achievement (NA).
 - b. BB → NA: The coefficient is 3.87, showing a positive relationship. This indicates that better learning culture (BB) will increase the need for achievement.
 - c. ED → NA: The coefficient is 9.60, indicating a very strong positive relationship. This suggests that higher self-efficacy (ED) significantly increases the need for achievement.
2. Relationship of Exogenous Variables to MMS (Interest in Continuing Studies)
 - a. MB → MMS: The coefficient is -1.62, indicating a negative relationship. This means that an increase in learning motivation (MB) tends to reduce interest in continuing studies (MMS).
 - b. BB → MMS: The coefficient is 1.33, indicating a positive but relatively weak relationship between learning culture and interest in continuing studies.
 - c. ED → MMS: The coefficient is 6.54, showing a strong positive relationship. This indicates that self-efficacy has a substantial influence on increasing interest in continuing studies.
3. Relationship between Endogenous Variables

NA → MMS: The coefficient is 3.94, indicating a positive relationship. This shows that the need for achievement significantly increases interest in continuing studies.

Overall, the model demonstrates an excellent fit to the data, as indicated by Chi-Square = 0.00; df=0; P-value = 1.00000; RMSEA = 0.000. This suggests that the model is perfectly aligned with the empirical data, with no significant differences observed.

After testing the structural model, hypothesis testing (Table 4) was conducted to examine both direct and indirect effects among the latent variables. The results indicate that self-efficacy and learning culture play important roles in influencing both the need for achievement and interest in continuing studies, while learning motivation shows a negative relationship in this model.

Table 4. Results of Structural Model Test / Research Hypothesis Test

Description	Relationship Between Variables	Value t count	Standardized Coefficient			Hypothesis Test Conclusion
			Direct Effect	Indirect Effect	Total Effect	
Hypothesis 1	There is a positive direct relationship between latent variables MB and MMS	-0.54	-0.03	-	-0.03	H1 is rejected because the <i>absolute t</i> value ≤ 1.96 with a positive correlation between latent variables.
Hypothesis 2	There is a positive direct relationship between latent variables BB and MMS	4.20	0.33	-	0.33	H2 is accepted because the <i>absolute t</i> value ≥ 1.96 with a positive correlation between latent variables.
Hypothesis 3	There is a positive direct relationship between latent variables ED and MMS	6.82	0.39	-	0.39	H3 is accepted because the <i>absolute t</i> value ≥ 1.96 with a positive correlation between latent variables.
Hypothesis 4	There is a positive direct relationship between latent variables MB and NA	2.79	0.18	-	0.39	H4 is accepted because the <i>absolute t</i> value ≥ 1.96 with a positive correlation between latent variables.
Hypothesis 5	There is a positive direct relationship between latent variables BB and NA	6.67	0.45	-	0.45	H5 is accepted because the <i>absolute t</i> value ≥ 1.96 with a positive correlation between latent variables.
Hypothesis 6	There is a positive direct relationship between latent variables ED and NA	5.83	0.28	-	0.28	H6 is accepted because the <i>absolute t</i> value ≥ 1.96 with a positive correlation between latent variables.
Hypothesis 7	There is a positive direct relationship between latent variables NA and MMS	1.49	0.11	-	0.11	H7 is rejected because the <i>absolute t</i> value ≤ 1.96 with a positive correlation between latent variables.
Hypothesis 8	There is an indirect relationship between MB and MMS variables through the intervening variable NA	-	0.03	0.0198	0.0498	H8 is rejected because the <i>absolute value of the indirect effect</i> (0.0198) < direct effect (0.03)
Hypothesis 9	There is an indirect relationship between BB and MMS variables through the intervening variable NA	-	0.33	0.0495	0.3795	H9 is rejected because the <i>absolute value of indirect effect</i> (0.0495) < direct effect (0.33)
Hypothesis 10	There is an indirect relationship between ED and MMS variables through the intervening variable NA	-	0.39	0.0308	0.4208	H10 is rejected because the <i>absolute value of indirect effect</i> (0.0308) < direct effect (0.39)

*) Note: out of 10 hypotheses, 5 hypotheses were accepted and 5 hypotheses were rejected.

Based on the research data analyzed, it can be discussed as follows:

1. The Influence of Learning Motivation on Interest in Continuing Studies

The results of the hypothesis test showed that H1 was rejected ($t\text{-statistic} = 1.62 \leq 1.96$). Thus, learning motivation does not have a significant and positive effect on students' interest in continuing their studies, indicating that the level of motivation students hold does not



automatically translate into a desire to pursue higher education. This differs from previous studies (Józsa et al., 2022; Liu et al., 2023), who found that individuals with high learning motivation tend to have a stronger educational orientation. According to researchers, this difference occurs because learning motivation relates to the current learning process, whereas the decision to continue studies is a broader, multidimensional decision shaped by economic, social, family, and future-prospect considerations, consistent with the human capital perspective in which students weigh expected benefits against costs such as tuition, living expenses, and opportunity costs (Huang et al., 2022; Somani, 2021). This is reinforced by Bernal et al. (2024), who found that financial uncertainty reduces the preference of low-income students for higher education, and by Tomaszewski et al. (2025), who showed that socioeconomic status remains linked to higher-education participation even after academic achievement is accounted for.

The insignificant effect may also stem from a restricted range in respondents' motivation levels, which limits the statistical detectability of the relationship (Howard et al., 2021). Learning motivation may instead work indirectly, through self-efficacy, engagement, and achievement, before translating into an actual decision to continue education (Li & Yang, 2025; Wang & Zhang, 2024). Practically, these findings suggest that raising interest in higher education requires more than motivational programs; institutions need to provide information on scholarships, tuition, and career prospects, since access to information and financial support are closely tied to students' decisions to continue their education (Bryan et al., 2022). Theoretically, the findings support the human-capital view that educational investment decisions depend on the interaction between motivation and economic conditions, self-efficacy, social support, and perceived returns. In conclusion, learning motivation remains important for academic readiness but must be supported by economic certainty, access to financing, family support, and career information in order to translate into an actual decision to pursue higher education.

2. The Influence of Learning Culture on Interest in Continuing Studies

The results of the hypothesis test showed that H2 was accepted ($t\text{-statistic} = 6.54 \geq 1.96$, positive direction). Thus, learning culture has a positive and significant effect on interest in continuing studies: the better students' learning culture, the higher their interest in pursuing higher education, reflecting how consistently formed learning habits, values, discipline, and academic commitment foster a long-term educational orientation. This is consistent with previous research on the role of the learning environment in shaping educational aspiration. A supportive learning environment and family/social influence relate to individuals' aspiration to pursue education (Tomaszewski et al., 2021; Chen et al., 2023), while Bryan et al. (2022) showed that a culture of continuing education, guidance availability, and school support relate to students' decisions to pursue further study. This confirms that interest in continuing education forms not only from internal drive but through an ongoing social and academic process. According to researchers, learning culture functions as a form of social and academic capital that increases readiness to invest in higher education, since students in strongly education-oriented environments gain information, support, and expectations that reduce uncertainty in educational decision-making. This aligns with Tomaszewski et al. (2025), who show that socioeconomic background and educational experience remain linked to higher-education participation, and with Chen et al. (2023), who found that individual, family, and social factors jointly shape educational aspirations.

Practically, institutions need to build an academic ecosystem that strengthens learning habits, discipline, guidance, and career planning, while families and communities reinforce positive expectations toward education; a weak learning culture, by contrast, risks students viewing further education as a non-urgent option. Theoretically, the results support the human-capital perspective that educational investment decisions are shaped by social capital, academic experience, and environment, not merely economic considerations. In conclusion, learning culture connects present learning experience with future educational orientation, making its development a shared responsibility of schools, families, and the social environment.

3. The Effect of Self-Efficacy on Interest in Continuing Studies

The results of the hypothesis test showed that H3 was rejected ($t\text{-statistic} = 1.33 \leq 1.96$). Thus, self-efficacy does not have a significant and positive effect on interest in continuing studies,



indicating that students' confidence in their abilities does not directly determine their desire to pursue higher education. This differs from [Adamuti-Trache \(2022\)](#), who found academic self-efficacy related to educational aspiration and post-high-school pathway choice. According to researchers, this gap arises because self-efficacy reflects confidence in completing academic tasks, while continuing education is a broader decision also shaped by economic obstacles, family responsibility, access, and career alternatives, a view supported by [Honicke et al. \(2023\)](#) and [Wang & Zhang \(2024\)](#), who show self-efficacy relates more directly to academic achievement and engagement than to further-study decisions. From an educational-economics perspective, self-efficacy functions as psychological capital, but the decision to continue studies still weighs costs against benefits, including family economic capacity, tuition, living costs, and expected returns ([Bernal et al., 2024](#); [Tomaszewski et al., 2025](#)). Students confident in their abilities may still opt to work or start a business if short-term income is perceived as more urgent than long-term educational benefit, consistent with [Bernal et al., \(2024\)](#) and [Tomaszewski et al. \(2025\)](#) on financial uncertainty and socioeconomic barriers.

The insignificant direct effect may also indicate that self-efficacy works indirectly, for instance through the need for achievement, so its influence on interest in continuing studies may be mediated rather than direct. Practically, self-efficacy programs should be paired with information on educational opportunities, scholarships, and financing, since institutional support and information play an important role in shaping educational decisions ([Bryan et al., 2022](#)). Theoretically, the findings broaden the understanding that human-capital investment decisions result from the interaction of internal factors (confidence, motivation) and external factors (economic condition, family support, access). In conclusion, self-efficacy remains an important psychological asset, but requires complementary factors, such as achievement needs, institutional support, and family or economic conditions, to translate into an actual decision to continue studies.

4. The Influence of Learning Motivation on the Need of Achievement

The results of the hypothesis test showed that H4 was accepted ($t\text{-statistic} = 2.73 \geq 1.96$, positive direction). Thus, learning motivation has a positive and significant effect on the need for achievement: the higher students' learning motivation, the stronger their drive to achieve success standards and sustain academic effort. This is in line with [Vu et al. \(2022\)](#), who found a reciprocal relationship between motivation and achievement ([Howard et al., 2021](#)), who showed autonomous motivation relates more positively to achievement than externally driven motivation; [Liu et al. \(2023\)](#) similarly found that achievement-motivation orientation predicts mastery goals. According to researchers, motivation directs students to set clearer, more challenging academic goals, develop strategies, and sustain effort, with successive success experiences reinforcing the drive for higher standards, a process supported by [Odermatt et al. \(2024\)](#), who found across two studies involving 766 adolescents that achievement motivation predicts both objective and subjective academic achievement.

In the context of this study, the need for achievement links learning experience to long-term educational orientation, as students who strongly seek achievement tend to view higher education as a means to develop competence and expand future opportunities, reflecting a human-capital investment orientation. Practically, schools should sustain positive learning motivation through success experiences, realistic goal setting, constructive feedback, and reward for process, while fostering autonomous rather than externally driven motivation. Theoretically, the findings support self-determination theory and achievement-motivation theory, reinforcing that adaptive learning motivation is an antecedent of the need for achievement, with implications for building students' readiness to view higher education as an investment in human capital.

5. The Influence of Learning Culture on the Need of Achievement

The results of the hypothesis test showed that H5 was accepted ($t\text{-statistic} = 3.87 \geq 1.96$, positive direction). Thus, learning culture has a positive and significant effect on the need for achievement: the stronger students' learning culture, the higher their need to achieve academic success standards, as a disciplined and achievement-oriented environment shapes both academic standards and students' internal drive. This is consistent with [Zhao et al. \(2023\)](#), who found that



a positive school climate increases achievement motivation directly and through learning-strategy adjustment, and with [Bardach et al. \(2020\)](#), whose PISA 2018-based research linked achievement motives and goals to school goal structures. Unlike prior studies that focus on school climate generally, this study emphasizes that learning culture also includes learning habits, discipline, academic values, and social support that jointly shape the need for achievement. According to researchers, students internalize the values and standards of their environment; consistent support, feedback, and reward for effort gradually form the belief that academic success is worth pursuing, eventually becoming a personal value rather than an external demand. This is supported by [Fitria et al. \(2025\)](#) study on high school students in Samarinda, which found that learning culture and the need for achievement jointly shape students' interest in pursuing higher education, complementing the present findings in explaining the formation of educational aspiration.

From an educational-economics perspective, a strong achievement orientation shapes how students view education as an investment in developing competence, qualification, and future income opportunities. Practically, schools should build a learning culture oriented not merely toward grades but toward habits, perseverance, and healthy appreciation of achievement, avoiding excessive competition. Theoretically, the findings support a cognitive-social perspective in which achievement orientation forms through the interaction between personal and environmental factors, extending the educational-economics view that environment indirectly shapes readiness for human-capital investment. In conclusion, a disciplined and supportive learning culture is key to fostering the need for achievement and preparing students for future education and careers.

6. The Influence of Self-Efficacy on the Need of Achievement

The results of the hypothesis test showed that H6 was accepted ($t\text{-statistic} = 9.60 \geq 1.96$, positive direction), the strongest relationship found in this study. Thus, self-efficacy has a positive and significant effect on the need for achievement: the higher students' confidence in their abilities, the stronger their drive to set higher standards, face challenges, and sustain effort toward success. This is in line with [Vu et al. \(2022\)](#), whose longitudinal study found a dynamic, reciprocal relationship between self-efficacy, motivation, and achievement, and with [Li et al. \(2023\)](#), [Liu et al. \(2023\)](#), and [Kryshko et al. \(2023\)](#), who showed self-efficacy relates to achievement goals, learning engagement, and academic outcomes; [Basileo et al. \(2024\)](#) further showed that self-efficacy strongly relates to achievement and can mediate the link between motivation and outcomes. According to researchers, belief in one's ability provides a psychological basis for setting goals and sustaining effort, allowing students to view difficulties as challenges rather than obstacles, and creating a reinforcing cycle in which self-efficacy encourages goal-setting, effort, achievement experience, and renewed self-efficacy. This complements [Vu et al. \(2022\)](#) by showing self-efficacy's specific positive influence on the need for achievement within this study's context.

From an educational-economics perspective, confidence in one's abilities shapes the perception of the benefits of educational effort, encouraging students to develop competence and set higher academic goals, positioning self-efficacy as psychological capital that supports a human-capital investment orientation. Practically, schools should provide gradual success experiences, realistic yet challenging tasks, and constructive feedback, integrated with academic and career guidance so that confidence translates into concrete goals. Theoretically, the findings reinforce a cognitive-social perspective in which self-efficacy directs behavior, goals, and effort, extending the educational-economics view that human-capital investment depends on psychological as well as economic capacity. In conclusion, with the strongest empirical support in this model ($t = 9.60$), self-efficacy is a key psychological factor in forming the need for achievement, best strengthened through success experiences, teacher support, and career guidance.

7. The Effect of Need of Achievement on Interest in Continuing Studies

H7 was accepted ($t\text{-statistic} = 3.94 \geq 1.96$, positive direction). Thus, the need for achievement has a positive and significant effect on interest in continuing studies: the stronger students' need for achievement, the higher their tendency to pursue higher education as a means to develop competence and realize future goals. This is consistent with [Fitria et al. \(2025\)](#), who



showed that the need for achievement directly affects Samarinda high-school students' desire to pursue higher education, and with [Grund et al. \(2022\)](#), who linked success orientation to achievement behavior and academic engagement. According to researchers, achievement-oriented students set higher standards and more challenging goals, viewing higher education as a space to gain competence and recognition, a mechanism explained through achievement-motivation theory and supported by [Witte et al. \(2024\)](#) on the link between achievement orientation and academic persistence, and by Dweck, (2024) on the role of mastery goals in shaping learning value and interest.

From an educational-economics perspective, the need for achievement functions as psychological capital that increases students' willingness to view higher education as a worthwhile investment despite its costs, though this drive is not the sole determinant, as family economic condition, access, and social support still matter. [Zeng & Tu \(2024\)](#) showed that students from low-income families can retain high achievement motivation when they hold strong future aspirations, indicating that economic limitation constrains realization rather than eliminating the drive itself. Practically, schools should help students build goal orientation and persistence alongside academic ability, providing realistic goals, feedback, career guidance, and information on higher-education options. Theoretically, the need for achievement functions as a psychological mechanism linking learning motivation, learning culture, and self-efficacy to educational aspiration. In conclusion, with $t = 3.94$, the need for achievement is confirmed as an important contributor to students' interest in continuing their studies, and its development should be directed toward long-term educational orientation and readiness.

8. Indirect influence between learning motivation variables on interest in continuing studies through need of achievement.

H8 was rejected, showing that the need for achievement does not mediate the effect of learning motivation on interest in continuing studies. The indirect effect (0.0288) was far weaker than the direct effect (0.06), indicating that learning motivation has not been able to raise interest in continuing studies through an increase in the need for achievement. This suggests that high learning motivation is not always followed by a desire to pursue higher education through achievement drive, since motivated students may seek success through alternative paths such as work, skills training, or entrepreneurship rather than college. This is in line with [Vu et al. \(2022\)](#), who noted that the motivation–achievement relationship is complex and operates through varied mechanisms, though in this study's context the need for achievement formed from motivation was not strong enough to direct students specifically toward higher education. According to researchers, this pattern indicates that the need for achievement, while responsive to learning motivation, does not by itself carry enough weight to redirect students' broader life-course decisions, since such decisions depend heavily on perceived costs and the availability of alternative pathways to success.

From an educational-economics perspective, continuing studies is a human-capital investment decision that weighs costs, family economic capacity, and expected benefits; thus, even motivated, achievement-driven students may not pursue higher education if it is seen as costly or its benefits uncertain, consistent with [Bernal et al. \(2024\)](#) and [Tomaszewski et al. \(2025\)](#) on the persistent link between socioeconomic condition and higher-education enrollment. Practically, increasing motivation and achievement need alone is insufficient; students also need information on tuition, scholarships, career prospects, and economic benefits to connect achievement drive with the choice to continue education, as supported by [Bernal et al. \(2024\)](#) on the influence of cost and financial-aid information on students' preferences. In conclusion, the rejection of H8 indicates that the need for achievement has not become a strong mediating mechanism between learning motivation and interest in continuing studies, showing that the decision to pursue higher education is shaped by a more complex combination of psychological, academic, and economic considerations.

9. Indirect influence between learning culture variables on entrepreneurial intentions through intervening variables of need for achievement.

H9 was rejected: the indirect effect of learning culture on interest in continuing studies



through the need for achievement (0.0552) was much weaker than its direct effect (0.56), indicating that the need for achievement has not functioned as an effective intervening variable in this relationship. This shows that learning culture influences interest in continuing studies more directly than through an increased achievement need, likely because learning culture encompasses broader elements, learning habits, academic environment, peer and teacher support, and views on educational sustainability, beyond achievement motivation alone. This is in line with [Bardach et al. \(2020\)](#) and [Zhao et al., \(2023\)](#), who show that the learning environment shapes motivation and achievement orientation, though such influence does not always translate uniformly into educational decisions due to individual and contextual differences. According to researchers, this indicates that learning culture functions as a broad environmental scaffold that shapes students' decisions holistically, rather than acting solely through a single psychological pathway such as the need for achievement.

The findings also align with [Bryan et al. \(2022\)](#), who show that a culture of continuing to college, guidance services, and school support relate directly to students' decisions to pursue higher education, reinforcing that a supportive learning environment can shape interest in continuing studies without first requiring an increase in the need for achievement. The weak mediation may reflect differing student conceptions of success, as some view success as achievable through work, entrepreneurship, or practical skills rather than college, while family socioeconomic condition and financial ability further shape the realization of interest ([Bernal et al., 2024](#); [Tomaszewski et al., 2025](#)). Practically, strengthening learning culture should be accompanied by information on study programs, career prospects, scholarships, and education costs, along with career counseling, so that a positive learning culture can translate into an actual decision to continue higher education. In conclusion, the influence of learning culture on interest in continuing studies operates predominantly through direct channels, confirming that this relationship is complex and shaped by individual, environmental, and socioeconomic factors beyond the need for achievement alone.

10. Indirect influence between self efficacy variables on interest in continuing studies through the mediating role of need for achievement.

H10 was rejected: the indirect effect of self-efficacy on interest in continuing studies through the need for achievement (0.1296) was not strong enough to establish the need for achievement as a significant mediating variable. This indicates that confidence in one's abilities does not automatically increase interest in continuing studies through a stronger achievement drive, since the decision to pursue higher education involves broader considerations, career goals, family economic condition, social support, cost, and perceived benefit, beyond academic confidence and achievement need alone. This is consistent with [Li et al. \(2023\)](#) and [Vu et al. \(2022\)](#), who link self-efficacy and achievement motivation to academic engagement without these automatically extending to the decision to pursue higher education, and with [Adamuti-Trache \(2022\)](#) and [Bernal et al. \(2024\)](#), who emphasize the role of social and economic conditions in shaping educational choice and participation. According to researchers, this suggests that psychological readiness alone, however strong, cannot substitute for the structural and financial conditions that ultimately determine whether interest in higher education is realized. The weak mediation may also reflect students' varied views of success, as some may see success as achievable through work, vocational training, or entrepreneurship rather than higher education, meaning high self-efficacy and achievement need do not necessarily direct students specifically toward college.

From an educational-economics perspective, interest in continuing studies also reflects a weighing of investment costs against expected benefits; [Tomaszewski et al. \(2025\)](#) emphasized the importance of socioeconomic condition and financing capacity in higher-education participation, so high self-efficacy alone does not guarantee interest if higher education is perceived as unaffordable or its benefits unclear. Practically, strengthening self-efficacy and achievement orientation should be paired with information on college options, scholarships, tuition, career prospects, and educational-career counseling to help translate confidence and achievement drive into an actual decision to continue studies. In conclusion, H10 confirms that

the relationship between self-efficacy and interest in continuing studies is complex and cannot be fully explained through the need for achievement alone, requiring complementary financial, informational, and counseling support.

CONCLUSIONS AND SUGGESTIONS

This study aimed to examine the influence of learning motivation, learning culture, and self-efficacy on the need for achievement and interest in continuing studies, and to test whether the need for achievement mediates the relationship between these three factors and students' interest in pursuing higher education. Based on the results of the ten hypotheses tested, the following conclusions can be drawn. First, learning motivation has no significant effect on interest in continuing studies, either directly (H1 rejected) or indirectly through the need for achievement (H8 rejected), although it does have a significant positive effect on the need for achievement itself (H4 accepted). This indicates that learning motivation strengthens students' achievement orientation, but does not translate, either directly or through the need for achievement, into a firm decision to pursue higher education. Second, learning culture has a significant positive effect on both interest in continuing studies (H2 accepted) and the need for achievement (H5 accepted), but the need for achievement does not mediate the relationship between learning culture and interest in continuing studies (H9 rejected). This confirms that learning culture shapes students' interest in higher education predominantly through a direct pathway, functioning as social and academic capital that independently strengthens both achievement orientation and long-term educational aspirations. Third, self-efficacy has a significant positive effect on the need for achievement, with the strongest coefficient among all relationships tested in this study (H6 accepted), but it has no significant direct effect on interest in continuing studies (H3 rejected), nor is this relationship mediated by the need for achievement (H10 rejected). This suggests that self-efficacy is an important psychological capital for shaping students' drive to achieve, yet its influence on the decision to pursue higher education depends on other supporting conditions, particularly economic feasibility. Fourth, the need for achievement has a significant positive effect on interest in continuing studies (H7 accepted), confirming its role as a psychological mechanism that connects learning motivation, learning culture, and self-efficacy with students' long-term educational orientation, although it is not the sole determinant of that interest. Overall, of the ten hypotheses tested, five were accepted (H2, H4, H5, H6, H7) and five were rejected (H1, H3, H8, H9, H10). These findings show that interest in continuing studies is shaped more strongly and directly by learning culture and the need for achievement, while learning motivation and self-efficacy operate mainly by strengthening the need for achievement rather than by shaping interest in continuing studies directly or indirectly. This confirms that students' decisions to invest in higher education cannot be explained by psychological readiness alone, but result from the interaction between psychological factors, learning culture, and the economic and contextual considerations surrounding investment in higher education.

Based on the conclusions above, several suggestions can be put forward. First, for schools and educators, since learning culture proved to be the strongest and most consistent predictor of both the need for achievement and interest in continuing studies, schools need to prioritise the strengthening of a positive, achievement-oriented learning culture, through consistent academic habits, discipline, teacher support, constructive feedback, and clear academic standards, as a strategic approach to fostering students' long-term educational aspirations. Second, because self-efficacy strongly shapes the need for achievement but does not directly or indirectly increase interest in continuing studies, schools need to design interventions that go beyond building academic confidence alone, such as providing experiences of success, realistic yet challenging tasks, and academic and career guidance, so that students' confidence in their abilities can be channelled into a stronger achievement orientation. Third, since learning motivation does not significantly shape interest in continuing studies, either directly or through the need for achievement, schools and policymakers should not rely on motivational interventions alone; efforts to increase learning motivation need to be integrated with the provision of information on



scholarships, tuition fees, financial assistance, and the economic benefits of higher education, so that students' academic drive is supported by a clearer understanding of the feasibility and returns of investing in higher education. Fourth, given that the need for achievement has a significant positive effect on interest in continuing studies, schools need to actively foster students' achievement orientation through the setting of challenging yet attainable academic goals, the reinforcement of a mastery orientation, and the provision of career guidance and information on the benefits of higher education. Fifth, since indirect effects through the need for achievement were consistently found to be weak, policymakers and school counsellors should address the economic and informational barriers to higher education directly, rather than relying solely on psychological interventions, including by providing accessible information on the cost of education, financial aid schemes, and the future economic returns of higher education. Sixth, for future researchers, given that several hypothesised relationships involving learning motivation and self-efficacy were not supported, further studies are recommended to explore additional mediating or moderating variables, such as family economic condition, access to educational information, and self-regulation, that may better explain how psychological readiness and learning culture translate into concrete decisions to pursue higher education. Future studies may also benefit from expanding the sample to other regions and levels of education to test the generalisability of these findings.

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