

Rethinking Entrepreneurship Achievement through Cognitive and Affective Drivers in Islamic Vocational Education

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A B S T R A C T

Entrepreneurship education in vocational settings increasingly demands a deeper understanding of the behavioral mechanisms shaping student achievement. However, prior studies largely emphasize instructional and cognitive determinants while overlooking the relative role of affective drivers within broader ethical frameworks. This study addresses this gap by examining the differential influence of cognitive and affective factors on entrepreneurship achievement from an Islamic economic perspective. A quantitative correlational design was employed involving 40 eleventh grade marketing students from a vocational high school in Indonesia selected through purposive sampling. Data were collected using validated instruments and analyzed using multiple linear regression to assess partial and simultaneous effects. The findings reveal a clear divergence between cognitive and affective drivers. Teacher communication as a cognitive instructional factor does not significantly affect entrepreneurship achievement while learning motivation as an affective driver shows a strong significant influence and explains a substantial proportion of variance. Simultaneously both variables explain 27.9 percent of achievement variance indicating the predominance of affective engagement. From an Islamic economic perspective entrepreneurship achievement is more closely associated with internally regulated value oriented behavior than externally driven inputs. This study proposes an integrative framework linking educational psychology behavioral dynamics and Islamic ethical principles and highlights the importance of strengthening intrinsic motivation to support sustainable entrepreneurial competencies in diverse vocational learning environments and future research contexts globally emerging.

Keywords: entrepreneurship achievement, learning motivation, teacher communication, vocational high school



Introduction

Education is a crucial aspect of human resource development. At the vocational high school (SMK) level, strengthening entrepreneurial competencies is a primary focus in preparing graduates who can compete independently in the workforce. One key factor influencing students' academic success is communication between teachers and students. Teachers who can establish effective communication create a learning environment that is comfortable, open, and participatory, which in turn enhances students' learning motivation (Helidu et al., 2022). Communication is an inseparable element of human life, particularly in the educational context (Isyanto & Syamsuddin, 2025). Effective communication not only serves as a means of delivering material, but also as a tool for building positive interpersonal relationships between teachers and students.

Vocational education plays a strategic role in preparing a workforce ready human resource, notably through entrepreneurship learning in SMK. Entrepreneurship is a vital subject because it not only hones technical skills but also instills independence, creativity, and innovation in students. Higher enthusiasm for entrepreneurship correlates with higher levels of innovation and entrepreneurial ability, which can partially mitigate employment pressures for graduates (Cui et al., 2024). Furthermore, research suggests that collaborative learning and integration of local resources can strengthen students' interest and ability to become entrepreneurs (Nafiati et al., 2025).

In practice, the achievement of entrepreneurial learning outcomes remains suboptimal in several SMK. One contributing factor is teacher student communication. Effective teacher communication fosters an open and interactive learning environment, enhancing students' comprehension and engagement. Meanwhile, high learning motivation encourages students to be active, responsible, and enthusiastic in their studies (Wahyuni, 2021). Motivation for success or failure can be influenced by situational factors (e.g., teacher's mood) and personal motives (Schimmelpfenning, 2025). The problem of suboptimal learning achievement indicates that the quality of pedagogical interactions, particularly teacher communication and student learning motivation, plays a key role in the entrepreneurship learning process.

Teachers serve as knowledge providers and facilitators, enabling students to design, analyze, and solve problems effectively (Ardilla et al., 2023). As learning leaders, teachers play a crucial role in maintaining students' motivation and achievement (Tiauw & Tung, 2022). Their role as motivators is essential in fostering interest and guiding students to act according to their needs or desires, which are closely related to personal interests and goals (Yuyun et al., 2025). The role of the teacher as a learning leader and motivator becomes a determining

factor in creating meaningful learning processes and encouraging students to be active, independent, and high achieving.

Students' learning motivation is a critical factor in determining achievement levels. Highly motivated students tend to be more active, persistent, and resilient in understanding learning materials, including entrepreneurship, which demands creativity and active thinking (Saharani et al., 2025). Teachers' ability to combine learning resources, apply appropriate methods, and master the subject matter is also indispensable (Rahman et al., 2020). Thus, student learning motivation serves as the main driving force that influences students' engagement and perseverance in the learning process.

Learning motivation aims to encourage students to achieve optimal outcomes. Similarly, teachers require motivation to sustain students' enthusiasm during lessons. Thus, motivation is key to fostering willingness to learn and achieving educational objectives, both for individuals and the school environment. Because students vary in their motivational levels, appropriate strategies are needed to maintain and enhance their learning drive throughout the instructional process (Hernama & Maharani, 2023). A student's slow learning or lack of creativity may result from insufficient synergy among talent, ability, knowledge, and interaction or communication with others (Pandjaitan & Hutajulu, 2021).

Teachers' motivational style directly shapes the classroom environment and indirectly affects students' classroom performance (CP) by fulfilling their psychological needs (Xu et al., 2025). Given their central role in instruction, communication, and evaluation, teachers' presence, relational style, pedagogical methods, and assessment approaches significantly influence students' academic motivation (Asadpour et al., 2025). Low motivation negatively impacts the learning process, as motivation is crucial for driving students' desire to learn. A decline in motivation typically reduces students' interest in learning. Motivation is essential not only for students but also for teachers during the teaching learning process.

Students' motivation increases when teachers communicate effectively, as communication influences others. Communication is the process of transferring and exchanging messages, which can consist of facts, ideas, feelings, data, or information from one person to another, aiming to influence or alter the recipient's knowledge and behavior (Hayani & Lubis, 2024). Such training prepares prospective teachers to navigate complex multilingual classrooms and fosters an inclusive learning environment (Nonkula & Nomlala, 2026).

Teachers are expected to create a teaching learning environment that positively impacts students' academic achievement. Effective instruction, efficient teaching, and strong communication skills help facilitate learning activities and motivate students to engage actively. Teachers bear primary responsibility for maintaining effective communication in the classroom, requiring them to motivate

students to ensure a productive learning process and good academic outcomes (A. A. Ramadhan et al., 2023) Positive and supportive teacher student relationships also contribute to a conducive learning environment and strengthen students' motivation (Moslimah, 2024).

Learning outcomes involve concept formation, which organizes environmental stimuli into structured frameworks for understanding new information and recognizing intra and inter category relationships (Setiawan & Ansen, 2025). Teachers support this process by consistently connecting everyday knowledge with scientific understanding to enhance students' conceptual thinking and problem solving skills (Fragkiadaki et al., 2023). Based on this, learning outcomes are measured not only by mastery of the material but also by students' ability to construct and connect concepts meaningfully.

Learning achievement is influenced by environmental factors such as teachers, facilities, curriculum, and physiological conditions (e.g., health and nutrition), as well as psychological factors. It reflects the outcomes of the learning process, marked by observable changes in students' behavior before and after instruction, forming the basis for evaluating academic results (Rahmah et al., 2023). Additionally, curricula adapted to students' cultural backgrounds and religious values contribute to fostering learning motivation (Masrudin et al., 2023).

Secondary education in Indonesia is divided into general senior high schools (SMA), which prepare students for further study, and vocational high schools (SMK), which equip students with workforce ready skills. Education aims to develop personality, social abilities, readiness for higher education, and practical skills (Sudaryono, 2016). Graduates from different secondary education tracks may experience varying success in maintaining or increasing their income during challenging periods (Ariansyah et al., 2024).

Previous studies have separately examined the influence of teacher communication or learning motivation on student achievement. For example, (Nurdan, N., Iskandar & Herlina, 2024) studied the effect of teacher communication on students' learning outcomes in economics, while (Helidu et al., 2022), (Mauldfi Sastraatmadja et al., 2023), and (Ruhma, 2024) examined learning motivation in science subjects. However, studies investigating the simultaneous effects of teacher communication and learning motivation on entrepreneurship achievement in vocational high schools (SMKs) remain limited. Furthermore, most prior studies have focused on general academic subjects (e.g., mathematics and science) rather than skill-based entrepreneurship education. This study addresses this gap by examining both partial and simultaneous effects in the SMK context.

Based on this gap, this study aims to examine the partial and simultaneous effects of teacher communication and learning motivation on the entrepreneurship achievement of vocational high school students.

Based on this objective, the research hypotheses are formulated as follows:

H1: Teacher communication has a significant positive effect on entrepreneurship achievement.

H2: Learning motivation has a significant positive effect on entrepreneurship achievement.

H3: Teacher communication and learning motivation jointly have a significant effect on entrepreneurship achievement.

Research Method

The method used in this study is quantitative. Quantitative research utilizes numerical data analysis to systematically develop and test theories or hypotheses related to the phenomenon under investigation (Suryani & Hendryadi, 2018). This study involves two independent variables (X), namely teacher communication and learning motivation, and one dependent variable (Y), namely student achievement.

The research was conducted at SMK Diponegoro Majenang, located on Jalan Raya Pahonjean KM.2, Majenang, Cilacap Regency, Central Java Province, during July to August 2025. Participants were 40 eleventh grade students (18 male, 22 female; age 16-17 years) enrolled in the Marketing Department at SMK Diponegoro Majenang, Indonesia, selected through purposive sampling (all students taking the Entrepreneurship course).

According to Sugiyono (2021) research variables are essentially anything in any form determined by the researcher to be studied in order to obtain information about it, which is then used to draw conclusions. explains that research variables in quantitative studies can be categorized into two types:

1. Independent Variables (X)

Independent variables are variables that influence or cause changes in the dependent variable. In this study, the independent variables are teacher communication and learning motivation.

2. Dependent Variable (Y)

Dependent variables are variables that are influenced or are the result of the independent variables. In this study, the dependent variable is student learning achievement.

Operational Definitions of Research Variables

In this study, the operational definitions of the variables are as follows:

1. Teacher Communication (X1)

Teacher communication refers to verbal and nonverbal interactions carried out by teachers during the learning process, including the use of language, tone of voice, body movements, and facial expressions.

2. Learning Motivation (X2)

Learning motivation is the drive that encourages a person to study and achieve

learning goals. In this study, learning motivation can be measured through several aspects, such as study frequency, study duration, learning persistence, devotion and sacrifice, ability to face difficulties, and the level of learning aspiration in students.

3. Learning Achievement (Y)

Learning achievement is the result obtained by students after undergoing the learning process, reflecting mastery of the material, the ability to apply knowledge, and attitudes toward learning.

The research instrument used in this study is a questionnaire measured using a Likert scale, which is used to assess the attitudes, opinions, and perceptions of individuals or groups regarding a particular phenomenon (Sugiyono, 2021). The instrument was used to measure teacher communication and student learning motivation. Learning achievement, however, was measured using end-of-semester examination scores (range 0-100) obtained from school records, not from a self-report questionnaire.

To collect data for addressing the research problems, several techniques were employed:

1. Observation. This is a form of primary data collection conducted selectively by observing all interactions and phenomena that occur. The researcher directly observed the objects under investigation at SMK Diponegoro Majenang.
2. Interview. This technique involves collecting data through face-to-face conversations between the researcher and the respondents.
3. Questionnaire. In this study, questionnaires were used to measure teacher communication and learning motivation. The questionnaires were distributed to 11th-grade Marketing students at SMK Diponegoro Majenang.
4. Documentation. Documentation was used to collect data on students' end of semester examination scores as well as data regarding active students in the 11th grade Marketing program at SMK Diponegoro Majenang for the year 2025.

Primary data refers to data obtained directly from the original source, collected by the researcher to address the research problems, either through interviews or questionnaires (Sugiyono, 2021). In this study, the primary data consisted of information on teacher communication (X1), learning motivation (X2), and student learning achievement (Y), which were collected through questionnaires distributed to 11th grade students at SMK Diponegoro Majenang. Secondary data refers to data obtained by reading, studying, and analyzing other media or documents related to the research context, such as company or institutional records (Sugiyono, 2021).

Data analysis is the process of simplifying data into a form that is easier to interpret. The purpose of data analysis in this study is to answer the research questions identified in the problem statement. Data analysis is an essential activity

in research, involving the management and organization of data to interpret the information obtained. In this study, data analysis was conducted using simple linear regression. Simple linear regression is employed to examine whether there is a significant cause and effect relationship between two variables, consisting of an independent variable and a dependent variable (Y). The data processing was carried out using SPSS (Statistical Package for the Social Sciences) version 17, which facilitates accurate and efficient computation. The research data are presented in tables to ensure systematic analysis and easier understanding. Using tables also helps the researcher convert questionnaire responses into numerical values for further analysis.

Research Instrument Testing

Before the research instruments are used, they must first be tested. The quality of research data for a hypothesis largely depends on the quality of the data used in the study. The quality of research data is determined by the quality of the instruments employed. In this study, the instruments were tested for validity and reliability to ensure that they meet the required standards. An instrument is considered suitable as a data collection tool if it has been proven valid and reliable.

Validity Test

Validity is a measure of how accurately an instrument reflects the results it is intended to measure. In other words, the higher the effectiveness of a measurement, the better the results correspond to the intended target. Therefore, validity is designed to assess the specific questions that are being measured. According to Sugiyono (Sugiyono, 2021) validity refers to the degree of certainty between the data occurring in the research object and the data reported by the researcher. Consequently, valid data are those that show no discrepancy between what is reported by the researcher and what actually occurs in the research object.

A validity test is used to determine the extent to which a measuring instrument (such as a questionnaire) accurately measures what it is intended to measure. The validity of the instrument can be assessed by correlating the total score obtained from the sum of all question scores. The collected data are tabulated, and then factor analysis is conducted to examine construct validity using the simple correlation method (calculated r), which correlates the factor scores with the total score. The instrument validity test in this study was conducted using SPSS version 17. To determine whether the questionnaire is valid, the column examined is the Corrected Item Total Correlation in the item total statistics table generated from SPSS data processing.

1. If the calculated r value (r_h) is greater than the r table value (r_t), the questionnaire item is considered valid.
2. If the calculated r value (r_h) is less than the r table value (r_t), the questionnaire item is considered invalid.

3. If the significance value (Sig) is less than 0.05, the result is considered statistically significant; otherwise, it is not significant.

Reliability Test

Reliability is a measure used to assess a questionnaire, which serves as an indicator of a variable or construct. A questionnaire is considered reliable if the responses from participants are consistent or stable over time (Ghozali, 2018). In this study, the reliability of the questionnaire was tested using the Cronbach's Alpha technique. Responses are considered reliable if each question is answered consistently and not randomly. According to the criteria stated by Ghozali, if the Cronbach's Alpha coefficient > 0.70 , the statement is considered reliable, and the construct or variable is deemed reliable.

The teacher communication questionnaire (15 items) had content validity index (CVI) of 0.89 and Cronbach's $\alpha = 0.85$. Learning motivation questionnaire (12 items) had $\alpha = 0.88$. Both exceeded the 0.70 threshold.

Classical Assumption Test

According to Ghozali the normality test aims to examine whether, in a regression model, the disturbance variable or residuals have a normal distribution. There are two ways to detect whether the residuals are normally distributed or not: graphical analysis and statistical tests. To determine whether the data distribution is normal or not, the normality test is carried out using a statistical test, namely the Kolmogorov Smirnov (KS) test (Somantri & Muhidin, 2011).

The criteria for the normality test are:

1. If $p < 0.05$, the distribution is considered not normal.
2. If $p > 0.05$, the distribution is considered normally distributed.

Multicollinearity Test

According to Ghozali the multicollinearity test aims to examine whether a regression model finds correlations among independent variables. If the independent variables are correlated with each other, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlations with each other equal zero. To test the presence of multicollinearity, tolerance or Variance Inflation Factor (VIF) values can be used:

1. If tolerance < 0.10 and VIF > 10 , multicollinearity occurs.
2. If tolerance > 0.10 and VIF < 10 , multicollinearity does not occur.

Heteroscedasticity Test

The heteroscedasticity test aims to examine whether in a regression model there is inequality in the variance of residuals from one observation to another (Ghozali, 2018). If the variance of residuals from one observation to another remains constant, it is called Homoscedasticity, and if it differs, it is called Heteroscedasticity. A good regression model should exhibit homoscedasticity,

meaning heteroscedasticity does not occur. The decision criteria using the Glejser test are:

1. If the significance value > 0.05 , heteroscedasticity does not occur.
2. If the significance value < 0.05 , heteroscedasticity occurs.

Autocorrelation Test

Autocorrelation can occur due to consecutive observations over time that are related to one another (Ghozali, 2016). This problem arises because the residuals are not independent from one observation to another. A good regression model is one that is free from autocorrelation. To detect the presence or absence of autocorrelation, the Run Test can be used. The Run Test is part of non-parametric statistics and is used to examine whether there is a high correlation among residuals. If no correlation exists among residuals, the residuals can be considered random.

The hypothesis and decision criteria are as follows:

1. If Asymp. Sig (2-tailed) < 0.05 , then H_0 is rejected and H_a is accepted. This means that the residuals occur systematically (not random).
2. If Asymp. Sig (2-tailed) > 0.05 , then H_0 is accepted and H_a is rejected. This indicates that the residuals occur randomly.

Descriptive Statistics

Descriptive statistics are statistics used to analyze data by describing or illustrating the collected data as it is, without intending to make generalizations or conclusions that apply to a wider population (Sugiyono, 2021). Descriptive statistics include: Presenting data through tables, graphs, pie charts, and pictograms. Calculating mode, median, and mean (measures of central tendency). Calculating deciles and percentiles. Measuring data dispersion through average and standard deviation. Calculating percentages.

Multiple Linear Regression Analysis

Multiple linear regression was conducted after testing normality (Kolmogorov-Smirnov $p = 0.21$), multicollinearity (VIF < 2 for all predictors), heteroscedasticity (Glejser $p > 0.05$), and autocorrelation (Durbin-Watson = 1.92). SPSS version 26 was used.

This analysis is used to determine the direction and magnitude of the influence of independent variables on the dependent variable (Ghozali, 2018). In simple regression and correlation analysis, only one independent variable is used. In contrast, in multiple regression and correlation analysis, more than one independent variable is used. Thus, the model for a multiple linear regression equation can be formulated as follows:

$$Y = a + b_1 x_1 + b_2 x_2 + e$$

Description of Variables:

Y = Student Achievement

X₁ = Teacher Communication

x₂ = Learning Motivation

b₁₂ = Multiple regression coefficients

a = Constant

e = Standard error

Hypothesis Testing

Hypothesis testing is used to examine whether there is an influence between the independent variables, namely Teacher Communication (X₁) and Learning Motivation (X₂), on the dependent variable, Student Achievement (Y). The steps for hypothesis testing are as follows.

Partial Test (t-test)

This test aims to determine the significance of the role of each independent variable partially on the dependent variable, assuming that other independent variables are held constant. The significance level (Sig t) for each independent variable is tested at $\alpha = 0.05$. If the significance level (Sig t) is less than $\alpha = 0.05$, the hypothesis is accepted, meaning that the independent variable has a significant effect on the dependent variable. Conversely, if the significance level (Sig t) is greater than $\alpha = 0.05$, the hypothesis is rejected, meaning that the independent variable has no significant effect on the dependent variable (Ghozali, 2016). Statistically, this can be expressed as follows:

- a. Null Hypothesis (H₀) The null hypothesis to be tested is whether a parameter (β_i) is equal to zero, or:

$$H_0: \beta_i = 0$$

This means that the independent variable is not a significant predictor of the dependent variable.

- b. Alternative Hypothesis (H_a)

The alternative hypothesis is that the parameter of a variable is not equal to zero, or:

$$H_a: \beta_i \neq 0$$

- c. This means that the variable significantly explains the dependent variable.
4. Determine the significance level (α) of 5% (0.05).
5. Hypothesis testing criteria:

Reject H₀ if the t significance (Sig t) < 0.05

Accept H_a if the t significance (Sig t) > 0.05

Simultaneous Test (F-Test)

The F-test essentially indicates whether all independent variables included in the model jointly influence the dependent variable. If $F\text{-count} > F\text{-table}$, then H_0 is rejected and H_a is accepted. This means all independent variables collectively explain the dependent variable. If $F\text{-count} < F\text{-table}$, then H_0 is accepted and H_a is rejected. This means all independent variables do not explain the dependent variable.

Coefficient of Determination (R^2) Analysis

According to Sugiyono the Coefficient of Determination (R^2) measures how well the model explains the variations in the independent variables. In this study, the determination value used is the adjusted R^2 . This value is used because the adjusted R^2 can increase or decrease when independent variables are added to the regression model, and it helps to determine how much the independent variables influence the dependent variable. The closer the R^2 value is to 1, the greater the influence of the independent variables on the dependent variable.

Results and Discussion

The Influence of Teacher Communication on Learning Achievement

The results of the study indicate that teacher communication does not have a significant effect on students' learning outcomes ($\text{Sig} = 0.128 > 0.05$), with a contribution of 6.0%. In contrast, learning motivation has a significant effect on students' learning outcomes ($\text{Sig} = 0.002 < 0.05$), contributing 23.5%. Simultaneously, teacher communication and learning motivation have a significant effect on students' learning outcomes ($\text{Sig} = 0.002 < 0.05$), with a coefficient of determination (R^2) of 0.279 or 27.9%

The data indicate that more effective teacher communication tends to increase the likelihood of higher student learning outcomes. This finding is consistent with the study by Yana and Husnita which reported that teachers' communication styles have a positive and significant effect on students' learning interest. (Yana & Husnita, 2023). Furthermore, Satika et al found that assertive and democratic communication styles fall within the good to very good category, whereas aggressive and passive styles tend to be less effective. (Satika et al., 2024).

However, these findings differ from those reported by Saragih et al who found that persuasive teacher communication has a negative impact on students' learning motivation (Saragih et al., 2024). On the other hand, Munthe et al demonstrated that more effective interpersonal communication by teachers is positively correlated with improved student learning outcomes (Munthe et al., 2022).

The non significant effect of teacher communication in this study suggests that communication is not the sole determinant of students' learning outcomes.

Although there is a tendency for effective communication to enhance learning outcomes, its effect is not statistically robust. This may be attributed to several unexamined factors, including students' perceptions in processing information, limited memory retention, lack of learning focus, and insufficient interaction between teachers and students during the instructional process.

H1: There is an effect of teacher communication on student learning achievement at SMK Diponegoro Majenang (Not Supported). The reason is that teacher communication does not have a statistically significant effect on learning achievement, as indicated by a significance value of 0.128, which is greater than 0.05. Although there is an indication that effective communication can contribute to student achievement, the current conditions at SMK Diponegoro Majenang in Majenang sub-district show that teacher student communication has not yet significantly contributed to learning outcomes. Specifically, vertical communication between teacher and students has not been fully effective, while horizontal communication between teachers is not the focus of this study.

The Influence of Learning Motivation on Learning Achievement

In this study, 40 students participated as respondents. The data indicate that higher levels of learning motivation exhibited by students have a greater impact on their learning achievement.

Based on the T-test results, the regression coefficient (B) was 0.594, and the t-value was 3.370, which is greater than the table value of 2.021. Thus, it can be concluded that learning motivation significantly affects learning achievement. Furthermore, the significance value (Sig) of 0.002 is less than 0.05 ($\alpha = 5\%$), so H2 is accepted. This demonstrates that learning motivation has a significant partial effect on learning achievement. Specifically, learning motivation contributes 23.5% to students' learning achievement partially. This finding aligns with previous research, which states that effective communication positively influences the quality of student learning and makes the learning process more effective, as teachers serve as role models for their students (Dewi & Maryanto, 2024).

These results are consistent with the study by Hernama and Anggita Maharani, "The Influence of Parental Attention, Learning Motivation, and Environment on Mathematics Achievement of SMPN 3 Darma Kuningan Students," which found that learning motivation significantly affects student achievement. In their study, 36.53% of students had very high motivation, 42.30% had high motivation, and 17.30% fell into the moderate category (Hernama & Maharani, 2023).

From a theoretical perspective, these findings strengthen motivation theories that position internal factors as key determinants of academic success. From a practical perspective, teachers and schools need to design learning strategies that

can enhance students' motivation, such as interactive teaching methods and the provision of rewards for learning achievement.

H2: There is an effect of learning motivation on student learning achievement at SMK Diponegoro Majenang (Supported). Learning motivation has a statistically significant effect on learning achievement, as indicated by a significance value of 0.002, which is less than 0.05. This shows that learning motivation is a primary factor in the learning process. It indicates that the level of learning motivation among eleventh grade Marketing students at SMK Diponegoro Majenang in the Entrepreneurship subject has a considerable influence on academic achievement. Therefore, efforts to enhance students' learning motivation are crucial, especially for eleventh grade students in the Marketing Department, to achieve better academic outcomes. Internal factors: interest and curiosity, goals and aspirations, self confidence, and physical and psychological conditions. This aligns with the opinion of Hamdu and Agustina, as cited in Purwanti et al., stating that good learning outcomes are influenced by various factors, including learning motivation. In this study, motivation was proven to affect learning achievement, contributing 56.1% to students' learning outcomes. This finding is consistent with previous research by Firmansyah (2011), Lee (2010), and Insar et al. (2017), which generally conclude that motivation plays a critical role in determining students' academic results (Purwanti et al., 2025).

The results of the study indicate that learning motivation has a significant effect on students' learning outcomes. This suggests that the higher the students' motivation, the better their academic achievement, as shown by the significance value of $0.002 < 0.05$, which leads to the acceptance of H2, with a contribution of 23.5%. This finding confirms that motivation is a crucial internal factor in the learning process, as it encourages students to be more active, focused, and strongly driven to achieve academic success.

Furthermore, these findings strengthen learning motivation theory, which emphasizes internal factors such as interest, goals, and psychological conditions as primary determinants of academic achievement. The results are also consistent with previous studies showing that students with higher motivation tend to achieve better learning outcomes.

The Influence of Teacher Communication and Learning Motivation on Students' Learning Achievement

Based on the questionnaires on teacher communication and learning motivation distributed to 40 respondents, the minimum score obtained was 23, the maximum score was 35, the average learning achievement was 28.425, and the standard deviation was 3.41105.

The results of the Coefficient of Determination (R^2) test showed an R Square value of 0.279. This indicates that teacher communication and learning motivation

together explain only 27.9% of the variation in learning achievement. In other words, the contribution of these two independent variables to changes in learning achievement is relatively low, while the remaining 72.1% is influenced by other variables not included in this research model.

Furthermore, the F-test results showed a significance value of 0.002, which is less than 0.05. This indicates that, simultaneously, teacher communication and learning motivation have a significant effect on learning achievement. In other words, these two variables together significantly influence students' academic performance.

The findings suggest that teacher communication and learning motivation can be considered by students as factors contributing to better learning outcomes. H3: There is an effect of teacher communication and learning motivation on the learning achievement of students at SMK Diponegoro Majenang (Supported). This reinforces that teacher communication and learning motivation can influence learning achievement. It implies that the better the quality of communication between teachers and students, the higher the students' academic performance (Nursida et al., 2025). Additionally, students' achievement motivation has a positive and significant effect on learning outcomes in vocational theory (A. N. Ramadhan, 2015).

This study has several limitations. First, the scope of the research was restricted to a single school, which limits the generalizability of the findings to broader educational contexts. Second, the relatively small sample size of 40 respondents may affect the representativeness of the data. Third, the use of a questionnaire as the primary research instrument may introduce self-report bias, as the responses depend heavily on the subjective perceptions of the students. Therefore, future research is recommended to involve a larger sample size, a wider range of schools, and more diverse data collection methods to improve the validity and generalizability of the findings.

Conclusion

This study found that learning motivation significantly predicts entrepreneurship achievement among eleventh grade vocational students, while teacher communication did not show a significant partial effect. Simultaneously, both variables explained 27.9% of achievement variance. Teachers should prioritize motivational strategies (e.g., goal setting, positive feedback, relevance of entrepreneurship to future careers). Schools should provide teacher training on fostering intrinsic motivation rather than focusing solely on communication techniques. Policymakers should consider integrating motivational modules into vocational curricula. Small sample (N=40) from one school limits generalizability. Cross sectional design prevents causal inference. Teacher communication

measured by student self report only. Use longitudinal designs, objective communication coding, and larger samples across multiple vocational schools. Examine moderators (e.g., gender, prior achievement) and mediators (e.g., self efficacy).

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