

## The Influence of Empathy and Entrepreneurship Learning on Students' Interest in Becoming Sociopreneurs at the Senior High School Level in Pekanbaru City: A Quantitative Study

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### ABSTRACT

This study examines the influence of Empathy and entrepreneurship learning on students' Interest in becoming sociopreneurs at the senior high school level in Pekanbaru City. The study is motivated by the importance of fostering social entrepreneurship character at an early stage, while empirical studies at the secondary education level remain limited. This research employed a quantitative approach using multiple linear regression analysis. Data were collected through questionnaires and analyzed using statistical tests. The findings show that Empathy has a positive and significant effect on students' sociopreneurship Interest, whereas entrepreneurship learning does not. However, both variables simultaneously have a significant influence, accounting for 24.8% of the variation in sociopreneurship Interest. In conclusion, Empathy plays a key role in shaping students' Interest in entrepreneurship, while entrepreneurship learning needs to be strengthened to better support this Interest.

**Keywords:** Empathy, entrepreneurship learning, sociopreneurship Interest, senior high school students

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### INTRODUCTION

Entrepreneurship and social entrepreneurship are increasingly viewed as strategic approaches to addressing socioeconomic challenges in Indonesia, particularly among younger generations. In the educational context, entrepreneurship learning plays an essential role in developing students' Interest in becoming sociopreneurs, individuals who create innovative solutions for social issues through business initiatives. (Central Statistics Agency, 2022) . According to Mutiarasari (2018) , entrepreneurship fosters independence, business freedom, and job creation for others. It also serves as a key driver of income generation and is expected to reduce poverty and unemployment (Indriyani, 2017) .

Despite Indonesia's demographic potential, the Global Entrepreneurship Index (GEI) indicates that entrepreneurial capability remains lower than that of neighboring countries. This limitation highlights the need for stronger entrepreneurship education that not only teaches business skills but also fosters students' social awareness. (Jahja et al., 2023) . Therefore, even though Indonesia has abundant human resources, it still lags in rankings. One factor contributing to the low number of entrepreneurs in Indonesia is the lack of highly skilled individuals, making it difficult for Indonesia to produce entrepreneurs with high potential to create new jobs for the community (Lidwina, 2019).

Previous studies , have emphasized the importance of social entrepreneurship for addressing social issues. However, limited research has examined how empathy and entrepreneurship learning simultaneously influence sociopreneurship Interest among high school students, especially in the context of Indonesian vocational schools (Hasanah, 2019) . This Sociopreneurship concept needs to be encouraged in educational units, such as at the Vocational High School (SMK) / High School (SMA) levels, through entrepreneurship lessons taught in schools, so that students can begin to understand the concept of entrepreneurship and its

social values. However, in fact, based on data from the Central Statistics Agency, the number of entrepreneurs in Indonesia is only around 3.4% of the total population in Indonesia, of course this figure is still far from the ideal figure conveyed by the President of the Republic of Indonesia that to make Indonesia a developed country at least 14% of entrepreneurs are needed from the total population in Indonesia.

Efforts to increase the number of entrepreneurs in Indonesia indeed begin with entrepreneurship education instilled in educational units. With a good understanding of entrepreneurship, it is hoped that students will be able to pursue careers as social-based entrepreneurs. Entrepreneurship education is expected to support national economic development by fostering enthusiasm for starting a business (Yuliwinarti et al., 2024). Entrepreneurship education has consistently been shown to influence students' entrepreneurial intentions (Darmawan, 2019). This suggests the need to explore further whether entrepreneurship learning can also shape sociopreneurial Interest, especially when combined with the development of Empathy.

Entrepreneurship education implemented throughout the learning process plays a crucial role in fostering students' Interest in entrepreneurship, particularly in the field of social entrepreneurship. In addition to entrepreneurship learning within the educational environment, Empathy is a crucial factor in fostering students' Interest in becoming social entrepreneurs or sociopreneurs. These two factors complement each other in shaping students' character and motivation to create a positive impact through entrepreneurial activities (Mudji Hartati, 2023) . Research on the role of Empathy in shaping sociopreneurship Interest remains inconsistent. Some studies report a significant influence. Research conducted by Wijaya & Handoyo (2022) found that, whereas others argue that Empathy alone does not directly predict sociopreneurial intentions. However, this contradicts the theory proposed by . These contrasting findings indicate the need for further investigation, particularly when Empathy is examined together with entrepreneurship learning.

However, even though Empathy and entrepreneurial learning play an important role, students' Interest in entering the world of sociopreneurship remains low. still faces various challenges. One of these is the lack of integration between emotional aspects, such as Empathy, and the teaching of technical entrepreneurial skills in educational settings. Many students possess strong Empathy for social issues but lack the knowledge or confidence to translate that Empathy into concrete action. Conversely, those who do receive entrepreneurship education may not fully understand the importance of social elements in creating impactful businesses.

Interviews with chemistry teachers at SMKN 2 Pekanbaru revealed that sociopreneurial values have been introduced, but student interest remains low. Teachers stated that this is partly due to entrepreneurship education being theoretical and lacking practical social engagement. This condition highlights the need for a learning model that integrates the development of Empathy with applied entrepreneurship practices. Several empirical studies have shown that Empathy can influence social entrepreneurship intentions (Buana & Masjud, 2020; Le Thanh, 2024; Chandra & Wuisan, 2023). However, findings on the role of entrepreneurship education remain inconsistent, suggesting that its effectiveness depends on the learning model used. Consequently, a study combining Empathy and entrepreneurship learning is needed to provide a clearer understanding of their interaction in shaping sociopreneurship Interest.

This research is significant because studies on sociopreneurship Interest among high school students in Pekanbaru are still minimal, even though adolescence is a crucial phase in character formation and career orientation. If students are guided towards entrepreneurship combined with Empathy from an early age, they can become a generation ready to enter the world of work while also providing social benefits. Therefore, this study aims to explore the influence of Empathy and entrepreneurial learning on sociopreneurship Interest, thereby providing a basis for designing more effective educational strategies and curricula tailored to local needs.

## **LITERATURE REVIEW**

### **Entrepreneurship Learning**

Etymologically, entrepreneurship derives from the words *wira* and *usaha*. *Wira* refers to a courageous and strong-charactered individual, while *usaha* denotes action or effort. Thus, an entrepreneur is understood as a person who undertakes meaningful actions with courage and integrity (Dunan et al., 2022). Conceptually, entrepreneurship is defined as the creative and innovative ability to identify and exploit business opportunities through appropriate strategies (Dainuri, 2019). Therefore, entrepreneurship learning aims not only to transfer knowledge but also to develop entrepreneurial skills and attitudes. Siswadi (2013) emphasizes that entrepreneurship learning must equip learners with knowledge, practical skills, and the ability to turn fundamental business ideas into reality. Similarly, Karibera et al. (2023) describe entrepreneurship learning as a deliberate process designed to build students' understanding, capabilities, and experience in practicing entrepreneurial activities (Karibera et al., 2023). Previous studies have shown that entrepreneurship learning positively influences students' entrepreneurial Interest and intention (Darmawan, 2019). These findings reinforce that entrepreneurship learning serves as an essential foundation for fostering entrepreneurial motivation, including in the context of sociopreneurship.

### **Empathy**

Empathy refers to an individual's ability to understand the emotions and situations of others through both emotional and cognitive perspectives. Goleman et al. (2017) define Empathy as the capacity to sense and comprehend another person's emotional state while appreciating their differing viewpoints. Similarly, (Winangsih et al., 2018) describe Empathy as the ability to place oneself in someone else's situation to understand their thoughts and feelings. In character education, Empathy is considered a core component that enables individuals to interpret non-verbal cues such as facial expressions, voice intonation, and body language (Fitriyana, 2019). This ability supports effective social interaction and fosters social awareness. Prior research indicates that Empathy is a significant determinant of sociopreneurial Interest, as the drive to address social problems often stems from sensitivity toward others' needs (Wijaya & Handoyo, 2022). Thus, Empathy is a relevant psychological variable that strengthens social motivation within value-based entrepreneurship.

### **Sociopreneurship**

Sociopreneurship combines the concepts of social and entrepreneurship. Asmahanah et al.,(2018) explain that a sociopreneur integrates business orientation with a social mission to create positive societal change. According to Praszkier et al., sociopreneurs act as agents of social change by enhancing community capacity through innovation and empowerment. Sociopreneurs create public value, identify social opportunities, innovate, and manage resources to address societal issues. Rohadi & Haryono (2016) note that sociopreneurial behavior is complex because it involves higher-order cognitive skills such as reasoning, working memory, and continuous learning. Studies show that Empathy influences sociopreneurial intention through affective concern and social responsibility (Chandra & Wuisan, 2023), while entrepreneurship learning enhances the knowledge and skills required to translate social values into entrepreneurial actions. Thus, sociopreneurship can be understood as the interplay between emotional factors (Empathy) and cognitive-practical factors (entrepreneurship learning) (Rohadi & Haryono, 2016) .

## **METHOD**

### **Research Approach**

This study adopts a quantitative approach, with a verification research design and a causal explanatory design. The purpose of this approach is to examine the causal relationship between Empathy, entrepreneurship learning, and sociopreneurship Interest. Quantitative methods enable researchers to measure variables objectively using numerical data, analyze causal pathways, and test hypotheses statistically. This design

ensures replicability, systematic data collection, and statistical accuracy in determining the magnitude and direction of influence among variables.

### Place and Time of Research

The research was conducted at SMKN 2 Pekanbaru, one of the largest vocational schools in Pekanbaru, Riau Province. The school was selected because it has an established entrepreneurship curriculum and various sociopreneurship-related extracurricular activities, making it relevant for studying students' sociopreneurial Interest. The study took place during the 2025/2026 academic year, after the research proposal seminar received official approval. Data collection was conducted during the even semester to ensure that students had already completed the entrepreneurship learning modules.

### Population and Research Sample

The population consisted of 836 12th-grade students enrolled in different vocational majors. Because not all 12th-grade students received the same exposure to entrepreneurship content, the study used purposive sampling, selecting students who had completed formal entrepreneurship learning. A total of 56 students were selected as the sample 45 males and 11 females. The sample size exceeded the minimum requirement for multiple regression ( $\geq 30$  respondents) and met the statistical assumption for parameter estimation. This sample was considered adequate for detecting medium effect sizes with acceptable statistical power.

### Data Types and Sources

#### Primary Data

Primary data were obtained from a structured Likert-scale questionnaire (1–5 scale) designed to measure three variables:

1. empathy,
2. entrepreneurship learning, and
3. sociopreneurship Interest.

The questionnaire items were developed from previous validated instruments and adapted to the vocational school context. Short semi-structured interviews with entrepreneurship teachers were also conducted to confirm the relevance of indicators and validate interpretations of student conditions.

#### Secondary Data

Secondary data included:

1. books and scientific articles on sociology, psychology, and entrepreneurship;
2. publications from the Pekanbaru Statistics Agency (BPS);
3. government regulations related to entrepreneurship education;
4. previous research studies supporting theoretical and empirical frameworks.

Both data types were integrated to ensure strong triangulation, theoretical grounding, and contextual insight.

### Data collection technique

#### 1. Questionnaire

A closed-ended Likert questionnaire was used to collect quantitative data. Indicators included:

**Empathy (X<sub>1</sub>)**: sensitivity, trust, understanding, social awareness, openness, social contact, social communication.

**Entrepreneurship Learning (X<sub>2</sub>)**: responsibility, risk-taking, self-confidence, feedback orientation, enthusiasm, insight, organizational skills, and appreciation of achievement.

**Sociopreneurship Interest (Y)**: social mission, sustainability orientation, community engagement, innovation and creativity.

These indicators were chosen to ensure that both psychological and behavioral aspects of each construct were adequately measured.

## 2. Documentation

Documentation techniques were used to obtain secondary information, including school profiles, curriculum structures, and entrepreneurship program documentation. These materials helped contextualize the findings and strengthen the descriptive analysis.

### Instrument Trial

The trial was conducted on 30 respondents to test the validity and reliability of the instrument.

1. **Validity** was tested using Pearson's Product-Moment Correlation with  $r = 0.325$ . The empathy variable had 12 valid items, the entrepreneurship learning variable had 15 valid items, and the sociopreneurship variable 9 valid items. Invalid items were revised or deleted.
2. **Reliability** was tested using Cronbach's Alpha. All variables were reliable, with  $\alpha > 0.60$ : Empathy (0.725), Entrepreneurial Learning (0.866), and Sociopreneurship (0.669).

### Hypothesis Testing Design

The data were analyzed using descriptive statistics and multiple linear regression with SPSS 23. The independent variables consisted of Empathy ( $X_1$ ) and Entrepreneurship Learning ( $X_2$ ), while the dependent variable was Interest in becoming a Sociopreneur ( $Y$ ).

Hypothesis tested:

1. The influence of Empathy on Interest in becoming a sociopreneur.
2. The influence of entrepreneurship learning on Interest in becoming a sociopreneur.
3. The simultaneous influence of Empathy and entrepreneurial learning on Interest in becoming a sociopreneur.

Examples of statistical hypotheses:

1.  $H_0: \rho_{xy} \leq 0$  (there is no significant positive influence of Empathy on sociopreneur Interest)
2.  $H_1: \rho_{xy} > 0$  (there is a significant positive effect)

## RESULTS AND DISCUSSION

### Respondent Demographic Profile

The study involved 56 12th-grade students at SMKN 2 Pekanbaru who had taken entrepreneurship courses. Respondents were characterized by gender and age .

**Table 1. Respondent Characteristics Based on Gender**

Gender	Number of Respondents	Percentage
Man	45	80.4
Woman	11	19.6

The majority of respondents were male (45 people) ( 80.4 %), while 11 were female (19.6%). This composition aligns with the characteristics of SMKN 2 Pekanbaru, which majors in engineering and practical skills dominate.

**Table 1. Respondent Characteristics Based on Age**

Age	Number of Respondents	Percentage
15	1	1.8
16	2	3.6
17	30	53.6
18	20	35.7
19	3	5.3

Respondents were aged 15–19. The 17-year-old age group dominated with 30 students (53.6%), followed by the 18-year-old age group (35.7%). This age range indicates that the majority of respondents were in the productive adolescent phase, which corresponds to the vocational education phase.

### **Descriptive Statistical Analysis**

The study analyzed the factors of Empathy and entrepreneurial learning on students' Interest in becoming sociopreneurs using a Likert-scale questionnaire.

#### **Empathy Variable**

The total average value of the Empathy variable is 3.83, which falls within the high category. The highest indicators are E.7.2 (4.59) and E.1.2 (4.54), indicating that students can understand the needs of others. The lowest indicators are E.7.1 (2.84) and E.2.2 (3.07), indicating that some students are less consistent in showing social concern. In general, the level of student empathy is good as a basis for forming sociopreneurial character.

**Table 2. Respondents' Responses to the Empathy Variable**

<b>Indicator</b>	<b>Respondents' Answers</b>					<b>Score</b>	<b>Flat</b>
	<b>S</b>	<b>SS</b>	<b>N</b>	<b>TS</b>	<b>STS</b>		
E.1.1	26	6	22	2	0	224	4.00
E.1.2	39	8	9	0	0	254	4.54
E.2.1	12	0	35	8	1	182	3.25
E.2.2	11	1	27	15	2	172	3.07
E.3.1	31	7	16	2	0	235	4.20
E.3.2	23	5	25	3	0	216	3.86
E.4.1	33	15	8	0	0	249	4.45
E.4.2	20	8	23	5	0	211	3.77
E.5.1	17	4	28	7	0	199	3.55
E.6.1	20	9	24	3	0	214	3.82
E.7.1	8	1	25	19	2	159	2.84
E.7.2	28	15	13	9	0	257	4.59
<b>Average</b>							<b>3.83</b>

### **Entrepreneurship Learning Variables**

The average value of the Entrepreneurship Learning variable is 4.11 , in the very high category. The highest indicators PK.1.1 and PK.1.2 (4.43 ) indicate that learning helps students understand the concept of social enterprise well. The lowest indicators PK.8.2 (3.64 ) and PK.2.2 (3.70) indicate the need for increased direct entrepreneurial practice. Overall, entrepreneurship learning has been effective in fostering creative and social mindsets.

**Table 3Entrepreneurship Learning Variables**

<b>Indicator</b>	<b>Respondents' Answers</b>					<b>Score</b>	<b>Average</b>
	<b>S</b>	<b>SS</b>	<b>N</b>	<b>TS</b>	<b>STS</b>		
PK.1.1	30	20	6	0	0	248	4.43
PK.1.2	31	18	7	0	0	248	4.43
PK.2.1	30	19	7	0	0	247	4.41

PK.2.2	18	9	24	4	1	207	3.70
PK.3.1	31	13	12	0	0	243	4.34
PK.3.2	28	19	8	1	0	242	4.32
PK.4.1	27	23	5	1	0	244	4.36
PK.4.2	19	6	27	4	0	208	3.71
PK.5.1	27	14	15	0	0	236	4.21
PK.5.2	21	8	26	1	0	217	3.88
PK.6.1	22	18	13	3	0	227	4.05
PK.6.2	28	14	13	1	0	237	4.23
PK.7.1	22	7	25	2	0	217	3.88
PK.8.1	22	13	21	0	0	225	4.02
PK.8.2	15	9	30	1	1	204	3.64
<b>Average</b>							<b>4.11</b>

### Sociopreneurship Variables

The average value of the Sociopreneurship variable is 4.09 , in the high category. The highest indicators SP.2.2 (4.43 ) and SP.3.1 (4.41) indicate a strong drive among students to become social mission-based entrepreneurs. The lowest indicator SP.1.1 (3.39 ) indicates that some students are still hesitant to directly link business to social benefits. In general, students have a good interest and readiness to become sociopreneurs.

**Table 4Socio-Entrepreneurship Variables**

Indicator	Respondents' Answers					Score	Flat
	S	SS	N	TS	STS		
SP.1.1	16	5	24	8	2	190	3.39
SP.1.2	27	10	16	2	1	228	4.07
SP.1.3	28	4	22	2	0	226	4.04
SP.2.1	18	2	32	4	0	202	3.61
SP.2.2	34	12	10	0	0	248	4.43
SP.3.1	33	14	8	1	0	247	4.41
SP.4.1	26	11	18	1	0	230	4.11
SP.4.2	30	18	8	0	0	246	4.39
SP.4.3	27	21	7	1	0	242	4.32
<b>Average</b>							<b>4.09</b>

### Inferential Statistical Analysis

#### Normality Test

Normality testing was conducted in this study using SPSS version 23 for Windows. The significance level set for this test was  $\alpha = 0.05$ . The test criteria are: if the significance value is  $> 0.05$ , then the data is normally distributed, while if the significance value is  $< 0.05$ , then the data is not normally distributed.

**Table 5. Normality Test Results**

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		56
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Standard Deviation	3.52189598
Most Extreme Differences	Absolute	,078
	Positive	,078
	Negative	-,048
Test Statistics		,078
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

Based on Table 6, it can be seen that the significance value is greater than 0.05, indicating that the residual data is normally distributed. Thus, the normality assumption in the regression model has been met, making the data suitable for further analysis.

### Linearity Test

Testing can be done using the SPSS version 23 for Windows program using the Test For Linearity at a significance level of 0.05. Two variables are said to have a linear relationship if the significance (Deviation From Linearity) is more than 0.05 (sig > 0.05).

**Table 6. Linearity Test Results**

Variables	F	Sig.	Interpretation
Empathy	0.765	0.729	Linear
Entrepreneurship	0.622	0.852	Linear

The results of the analysis show that in the ANOVA table, the Empathy variable has a Sig. value for Linearity of  $0.01 < 0.05$  and a Sig. The value for the Deviation from Linearity of  $0.729 > 0.05$ , so it can be concluded that the relationship between the Empathy (X1) and Sociopreneurship (Y) variables is linear. The Entrepreneurship variable has a Sig. value for Linearity of  $0.24 < 0.05$  and a Sig. value for Deviation from Linearity of  $0.825 > 0.05$ , so it can be concluded that the relationship between the Entrepreneurship Learning (X2) and Sociopreneurship (Y) variables is linear.

### Multicollinearity Test

The results of the multicollinearity test are based on the tolerance value and the Variance Inflation Factor (VIF). A regression model is free of multicollinearity if the VIF value is  $<10$  and the tolerance value is  $>0.10$ . The following table shows the results of the multicollinearity test:

**Table 7. Multicollinearity Test Results**

Variables	Collinearity Statistics		Information
	Tolerance	VIF	
Empathy	0.829	1,206	Free from multicollinearity
Entrepreneurship	0.829	1,206	Free from multicollinearity

Using a 95% confidence level or a 5% significance level ( $\alpha = 0.05$ ), the data processing yielded a VIF value of 1.206. Because the VIF value is less than 10.00, there is no multicollinearity between the independent variables in the regression model. Therefore, the model above is free from multicollinearity.

## Research Hypothesis Testing

### Multiple Linear Regression Analysis

Multiple linear regression analysis is carried out by determining the equation  $\hat{Y} = a + b_1 X_1 + b_2 X_2 + e$ . The results of the calculation of the values are as follows.

**Table 8Multiple Linear Regression Test**

Model	Unstandardized Coefficients		Beta	t	Sig.
	B	Std. Error			
(Constant)	15,12	6,390		2,367	,022
Empathy (X1)	,302	,095	,415	3,171	,003
Entrepreneurship (X2)	,128	,110	,152	1,164	,250

The results of this multiple linear regression equation are:

$$Y = 15.122 + 0.302 X_1 + 0.128 X_2$$

#### a. Constant

If the values of Empathy ( $X_1$ ) and Entrepreneurship ( $X_2$ ) are 0, then the basic value of Sociopreneurship ( $Y$ ) is 15.122. This means that without the influence of Empathy and entrepreneurship, the level of sociopreneurship is 15.122.

#### b. Empathy Coefficient

Each one unit increase in the Empathy variable ( $X_1$ ) will increase the Sociopreneurship ( $Y$ ) value by 0.302, assuming the other variables remain constant.

#### c. Entrepreneurship Coefficient

Each unit increase in the Entrepreneurship variable ( $X_2$ ) will increase Sociopreneurship ( $Y$ ) by 0.128, assuming other variables remain constant.

### t-test

The t-test in multiple linear regression is intended to test whether the parameters (regression coefficients and constants) estimated to estimate the multiple linear regression equation/model are appropriate. Appropriate means that the parameters can explain how the independent variables influence the dependent variable. The parameters estimated in linear regression include the intercept (the constant) and the slope (the coefficient in the linear equation). In this section, the t-test focuses solely on the slope parameter (regression coefficient). Therefore, the t-test in question is a test of the regression coefficient. The rule is that if the p-value is less than 0.05, then  $H_0$  is rejected and the regression coefficient is significant. If the p-value is greater than 0.05, then  $H_0$  is accepted, or the regression coefficient is insignificant.

Based on the results of the t-test in Table 4.19, the calculated t-value and significance (Sig.) for each variable are as follows:

- The Empathy variable ( $X_1$ ) has a t-value of 3.171 and a p-value of 0.003. Since the significance value is less than 0.05 ( $0.003 < 0.05$ ), it can be concluded that Empathy ( $X_1$ ) has a positive and significant effect on Interest in becoming a Sociopreneur ( $Y$ ). This means that the higher students' Empathy level, the greater their Interest in becoming a sociopreneur.
- The Entrepreneurship variable ( $X_2$ ) has a t-value of 1.164 and a p-value of 0.250. Since the significance value is greater than 0.05 ( $0.250 > 0.05$ ), it can be concluded that Entrepreneurship ( $X_2$ ) does not have a significant effect on Interest in becoming a Sociopreneur ( $Y$ ). Thus, the aspect of entrepreneurship learning has not had a significant effect on students' Interest in becoming sociopreneurs.

Thus, the t-test results show that Empathy has a significant influence, whereas Entrepreneurship Learning does not.

### F test

This test is intended to determine whether there is an influence of the independent variable together with the dependent variable. This test is also called the model feasibility test or, more commonly, the model simultaneous test. This test determines whether the estimated regression model is feasible. Feasible here means that the estimated model is suitable for explaining the influence of independent variables on the dependent variable. The condition is that if the calculated F probability value (the output result is shown in the Sig. column) is smaller than the error rate (alpha) of 0.05 (which has been determined), then  $H_0$  is rejected, or the estimated regression model is deemed feasible. In contrast, if the calculated F probability value is greater than the error rate of 0.05, then  $H_0$  is accepted if the calculated F value  $\leq f$  table and the significance is  $> 0.05$ .

**Table 9. F Test Results**

Model	df	Mean Square	F	Sig.
( Entrepreneurship + Empathy ) → Regression	2	112,316	8,726	0.001 <sup>b</sup>
Sociopreneurship	Residual	53	12,872	
	Total	55		

Based on the results of the F test (simultaneous test) in the ANOVA table above, the calculated F value was 8.726, with a significance value (Sig.) = 0.001. Because the calculated F (8.726)  $>$  F table (3.16) and the Sig. Value (0.001)  $<$  0.05, it can be concluded that the regression model is simultaneously significant. This means that, together, the variables Empathy ( $X_1$ ) and Entrepreneurship ( $X_2$ ) significantly influence Sociopreneurship ( $Y$ ).

### $R^2$ Test

This test is intended to measure the extent to which the independent variable influences the dependent variable.

**Table 10.  $R^2$  Test Results**

Model	R	R Square	Category
( Entrepreneurship + Empathy ) → Sociopreneurship	0.498 <sup>a</sup>	0.248	Strong Enough

Based on the results of the determination coefficient ( $R^2$ ) test in the Model Summary table, the R Square value was 0.248, or 24.8%. This indicates that the Empathy ( $X_1$ ) and Entrepreneurship ( $X_2$ ) variables together explain 24.8% of the variation in changes in the interest variable toward Sociopreneurship ( $Y$ ), with the remaining 75.2% influenced by factors outside this research model. The Adjusted R Square value of 0.219 indicates that after adjusting for the number of independent variables and the number of samples, the model's ability to explain the dependent variable remains in the sufficient category. Thus, it can be concluded that Empathy and Entrepreneurship simultaneously contribute to the Interest in becoming Sociopreneurs among SMKN 2 Pekanbaru students, although their contributions are not yet substantial.

## Discussion

### The Influence of Empathy on Interest in Becoming a Sociopreneur

The t-test results show that Empathy has a positive and significant effect on Interest in sociopreneurship, with a significance value of 0.003 and a regression coefficient of 0.302, indicating that increased Empathy is associated with greater student interest. This finding aligns with the emotional intelligence theory of Boyatzis et al. (2000), which positions Empathy as a crucial element in understanding others' needs and as the basis for one's motivation to create social value. Research by Jadmiko (2019) and Wijaya & Handoyo (2022) also confirms that Empathy encourages individuals to engage in social

entrepreneurship. Thus, Empathy is proven to be a decisive factor in increasing students' tendency to participate in entrepreneurial activities aimed at solving social problems.

### **The Influence of Entrepreneurship Learning on Interest in Becoming a Sociopreneur**

The t-test showed that entrepreneurship learning did not significantly influence Interest in sociopreneurship ( $\text{Sig.} = 0.250$ ), although the direction of the effect was positive, with a coefficient of 0.128. This condition illustrates that learning remains theoretical and has not fully instilled a social orientation in students, as emphasized by Fayolle & Gailly (2015), who argue that entrepreneurship education must foster a social mindset and values, not just business knowledge. Research by Wijaya & Handoyo (2022) and Wibowo (2011) supports this finding by showing that formal learning that has not yet been applied is less effective at increasing interest in sociopreneurship. Thus, entrepreneurship learning needs to be optimized through a social practice-based approach to have a significant impact on student interest.

### **The Influence of Empathy and Entrepreneurship Learning on Interest in Becoming a Sociopreneur**

The F-test results show that Empathy and entrepreneurial learning simultaneously have a significant effect on Interest in sociopreneurship ( $\text{Sig.} = 0.001$ ), with a contribution of 24.8% based on the  $R^2$  value. This aligns with the Social Entrepreneurship Model of Mair and Noboa (2006), which explains that Empathy provides moral encouragement, while entrepreneurial learning provides the skills to realize social ideas. Research by Wijaya & Handoyo (2022) and Astuti & Prasetyo (2020) also proves that the combination of Empathy and entrepreneurship education strengthens students' Interest in social entrepreneurship. Thus, these two variables together form an important foundation for the growth of Interest in sociopreneurship, although other external factors also influence it.

## **CONCLUSIONS AND RECOMMENDATION**

Based on the results of data analysis, hypothesis testing results, and the discussion that has been carried out, the following conclusions can be drawn:

1. Empathy has been shown to have a positive and significant influence on Interest in becoming a sociopreneur ( $\text{Sig.} = 0.003 < 0.05$ ). This means that the higher a student's ability to understand social conditions, the greater their Interest in engaging in social entrepreneurship activities.
2. Entrepreneurship learning did not significantly influence Interest in becoming a sociopreneur ( $\text{Sig.} = 0.250 > 0.05$ ). This indicates that the materials, methods, and field practice in learning are still not strong enough to stimulate student interest.
3. Together, the two variables significantly influence sociopreneurship Interest ( $\text{Sig. } F = 0.001 < 0.05$ ), with a contribution of 24.8% ( $R^2 = 0.248$ ). This means that Empathy and entrepreneurial learning play important roles, but other factors outside the model also influence student interest.

The recommendations from this research are that schools and teachers should strengthen entrepreneurship education through project-based learning and fieldwork to provide students with hands-on experience in social enterprise activities. Students are also expected to improve their social sensitivity and Empathy, as these skills play a crucial role in developing Interest in becoming sociopreneurs. Furthermore, the government and schools are advised to integrate Empathy into the curriculum and provide mentoring programs for aspiring social entrepreneurs. Future researchers are advised to include additional variables, such as social motivation, family support, and the school environment, and to expand the research objectives to improve comprehensiveness.

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