The Effect of the Technopark and Business Incubator Program on Students at SMKN 4 Malang Entrepreneurial Interests

Arnie Perwita Sari[1*] and Eddy Sutadji[2]

[1] Pendidikan Kejuruan Universitas Negeri Malang
[2] Pendidikan Teknik Mesin Universitas Negeri Malang
*Email: arnie.perwita.2205518@students.um.ac.id

ABSTRACT

To prepare quality graduates who are ready to become entrepreners, SMKN 4 Malang has provided facilities for their students through technopark and business incubator programs. Technopark is an integrated space that identifies educational institutions, Iduka, and entrepreneurship training to improve business performance for students. The incubator business serves as a place of guidance for students to become new entrepreneurs and coaches those who are running their businesses. The purpose of this study was to determine the contribution of technopark and business incubator programs to students' interest in entrepreneurship at SMKN 4 Malang. This research is an ex-post facto research. Using a quantitative descriptive approach and the population used is students of SMKN 4 Malang. The sampling technique used was a simple random sampling of 110 students. Employing a questionnaire to get data, then using multiple regression to analyze it. The results of the study show that: (1) the contribution of the technopark program to the interest in entrepreneurship has no significant effect; (2) the contribution of the business incubator to the interest in entrepreneurship has a partial effect; and (3) the contribution of the technopark and business incubator programs to the interest in entrepreneurship is simultaneously 39.7% and the remaining 60.3% is influenced by factors other. The conclusion drawn is that SMKN 4 Malang, which is interested in entrepreneurship, is impacted by a variety of factors, both internal and external.

Keywords: SMK, Technopark, Business incubator, Entrepreneurial interests.

1. INTRODUCTION

The government has not adequately regulated one of the challenges affecting the Indonesian country today, namely unemployment. Because it has the potential to lead to different criminal acts, social unrest, politics, and poverty, the issue of unemployment needs special attention [1]. According to BPS data in August 2022, the Open Unemployment Rate (TPT) is 5.86%. According to specific estimates, there are 8.4 million Indonesians who are unemployed. As a result, there are about six students unemployed for every 100 students employed. The TPT category, comprises 20.63% of the population aged between 15 and 24 years. This number is higher than residents over the age of 60, namely 2.85%, and residents between the ages of 25 and 29 years, namely 3.36% [2]. Another fact, the number of SMK graduates is the main cause of unemployment in Indonesia. The main factor in

ensuring the welfare and completeness of human life is education. Higher education is expecting to be able to produce quality human resources. Improving the quality of human resources is also influenced by optimization through training and education [3]. Vocational High Schools (SMK) playing important role in human resource development. At present efforted are being made in various directions to rejuvenate the SMK structure. This revitalization is adjusting to changes in society, economic needs, and advances in science and technology. Curriculum and character education, technology-based learning tools for information and communication, entrepreneurship, alignment, and evaluation are five elements that will help revitalize the SMK education system [4]. Organizing technopark and business incubators is one of the government's efforts through SMK to support young entrepreneurs. Both of these programs seek to develop student's knowledge and

interest in entrepreneurship. Technopark programs and business incubators are believed to be able to increase students' enthusiasm and understanding of the entrepreneurship process. It's hoped that these two programs can help shift the focus of SMK graduates from job seekers to job creators.

Through education, students' interest in starting their own business can be increased. Entrepreneurial interest is a factor that must exist to become an entrepreneur. Entrepreneurship is the desire, enthusiasm and availability to exert a lot of effort or have the fortitude to try to meet needs without fear of risk and always learn from mistakes made [5]. Entrepreneurship is a learning process that can help students develop entrepreneurial character because they can take risks, see future opportunities, and raise money for the latest products so that they provide goods to consumers that are produced differently and have their characteristics [6]. Growing the entrepreneurial sector is see as a tactical step in solving economic problems. Business activities carried out by entrepreneurs are a keying component of economic expansion. Entrepreneurship education can be obtained through technopark and business incubator, so that students will focus on the topics of: 1) cultivating an independent mindset, 2) choosing the industry in which to operate, 3) organizing early-stage activities, 4) obtaining financing, and 5) marketing [7].

Technopark is a strategy to revive the role of vocational schools in fostering students' interest in entrepreneurship. Technopark is directed as a centre for business growth, innovation, and provides good entrepreneurial concepts for students [8]. The technopark program in SMK is describe as the relationship between several Teaching Factories in SMK which bridge the world of education with the industrial world and related agencies to work together with the Teaching Factory in SMK [9]. Through business incubation and spin-off processes, Technopark aims to promote and manage the flow of knowledge and technology among SMKs that have implemented the Teaching Factory program. It also aims to provide other value-added services through on the provision of high-quality space and facilities. Technopark program supporters include business incubators, angel financing, seed capitally, and venture capital. It can be concluded that the main objective of the technopark program in Vocational High Schools is to develop graduates' skills following the needs of the business world so that they have an impact on increasing the competitiveness of the Indonesian industry.

Apart from the technopark program, one of the initiatives aimed at encouraging students to become entrepreneurs is through a business incubator. Business incubators are an approach to entrepreneurship learning activities that involve mentoring and partnerships with business students who have successfully run businesses. That can encourage the emergence of new entrepreneurs

through the learning process [10]. An organization that focuses on creating and expand a local entrepreneurial environment and culture is known as a business incubator [11]. Business incubators are crucial for assisting young entrepreneurs in Indonesia. To assist its students in starting their enterprises, many educational institutions, including colleges and schools, have put in place business incubator programs. The successful growth of student entrepreneurship depends on assistance. Because a competitive and ever-changing business environment requires students to have entrepreneurial abilities [12]. Business incubation is an alternate educational strategy that gives SMK students practical experience in starting, running, and developing firms. Students will develop a positive attitude and self-confidence through the business incubation learning process, which will then encourage their desire to start their firm. A business incubator fosters entrepreneurial ambition as a way to provide a favourable learning environment for SMK students to develop their skills [13].

Based on some of the explanations above, it is assuming that technopark and business incubator programs can influence vocational students' interest in entrepreneurship. These two factors that are offered to students at school are considered to be able to trigger interest in entrepreneurship and prepare SMK graduates to create new jobs and businesses. There is important because interest is the best indicator of how someone will behave when starting their own business. However, this impact needs to studied through research, especially on students at SMKN 4 Malang. The importance of studying technopark initiatives and business incubators is to find out whether these factors can change the interest of SMKN 4 Malang students in entrepreneurship.

2. METHODS

The design of this study uses quantitative and the test is multiple regression analysis. Students of SMKN 4 Malang who are familiar with or have received technopark programs and/or business incubators are using as research subjects. The purpose of this study is to ascertain how the two independent variables (X) influence the dependent variable (Y). The technopark program and business incubator are the independent variables in this study. The instrument used is a questionnaire with 12 items on a scale of 1-4 each. Meanwhile, interest in entrepreneurship as the dependent variable uses 15 items on a scale of 1-4. The conceptual model of the link between variables is shown in Figure 1.
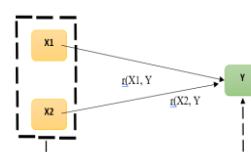
Figure 1. conceptual model of relations between variables

Information:

X1   : technopark
X2   : business incubator
Y   : interest in entrepreneurship
r(X1, Y)   : contribution between technopark and interest in entrepreneurship
r(X2, Y)   : contribution between business incubators and interest in entrepreneurship
r(X1 X2,Y) : technopark contribution, a business incubator with an interest in entrepreneurship
———————→ : the relationship between variables partially
— — — — : the relationship between variables simultaneously

The results of the study were then tested using descriptive and inferential analysis. Descriptive analysis is using to describe the data that has been obtained. While inferential analysis is using to evaluate the given hypothesis and generalize the sample data. This study uses multiple linear regression analysis for inferential analysis. Normality tests, linearity tests, autocorrelation tests, and heteroscedasticity tests were performed before carrying out multiple linear regression analyses.

2.1. Population and Sample

The study population was students of class X, XI, and XII at SMKN 4 Malang who know or have experienced technopark programs and/or business incubators. Used to simple random sampling technique. The number of samples was calculating using the Slovin method with an error tolerance of 1%. The findings of the Slovin formula calculation show that 110 students can be used as research samples.

2.2 Research Instruments

The data collection instrument for 110 respondents was carring out using a questionnaire-based non-test. Respondents can only choose the answer choices that have been offered by researchers. The questionnaire uses answer choices with a Likert scale which has four categories, namely strongly agree (4 points), agree (3 points), disagree (2 points), and strongly disagree (1 point).

2.3 Data Analysis

Data analysis was carring out after all data for each variable was collected. Analyzing the data seeks to verify the research premises. The stages of data description, prerequisite test, and hypothesis testing are several stages of data analysis.

3. RESULT

3.1 Descriptive Analysis

The research results are presented in the form of descriptive analysis for each variable, prerequisite test, and hypothesis test. Descriptive analysis is using to describe the data obtained from research findings in table 1. Technopark descriptive analysis, business incubator descriptive analysis, and descriptive analysis of students' interest in entrepreneurship at SMKN 4 Malang are three forms of descriptive analysis used in this study. The next paragraph explains the research conclusions.

Table 1. Descriptive Statistics

Descriptive Statistics

|	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation	Variance
X1	110	25.00	23.00	48.00	3599.00	32.7182	4.08877	16.718
X2	110	25.00	23.00	48.00	3747.00	34.0636	3.91955	15.363
Y	110	24.00	30.00	54.00	4796.00	43.6000	5.16907	26.719
Valid N (listwise)	110							

3.1.1. The Technopark Program (X1)

Data for the technopark program variables were collected from data distribution in the form of a questionnaire with 12 items with 1-4 alternative answers. Then the maximum score is 48, and the lowest score is 23, according to the results on the study. The results on the description of the technopark program data are in Table 2.

Table 2. Descriptive Statistics the Technopark Program

No	Category	Intervals	Frequency	Percentage
1.	Very Low	23.00 – 29.50	20	18.2 %
2.	Low	29.60 – 33.50	43	39.1 %
3.	Sufficient	33.60 – 37.50	39	35.5 %
4.	High	37.60 – 41.50	5	4.5 %
5.	Very High	41.60 – 48.00	3	2.7 %
		Total	110	100 %

According to the technopark program descriptive statistics in Table 2. Students who believe the technopark program has a very high influence to entrepreneurship interest by 2.7% are described in the table above, 4.5% of students think the technopark program's contribution falls

under the high category. Some students make selections in the 35.5% sufficient category. While several other students fell into the low group with a proportion of 39.1% and 18.2% of students believed the technopark program had a very low impact on their interest in entrepreneurship. Figure 2 displays specifics of the research data score outcomes for the technopark program variables.
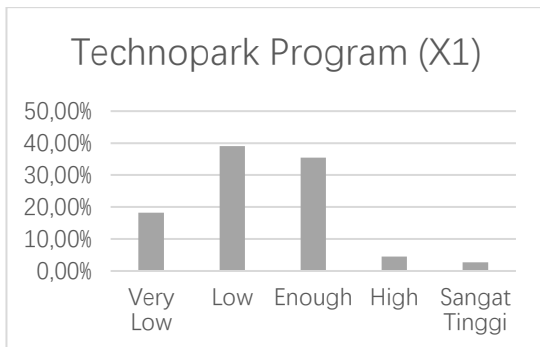
Figure 2. the technopark program variable frequency (X1) distribution diagram
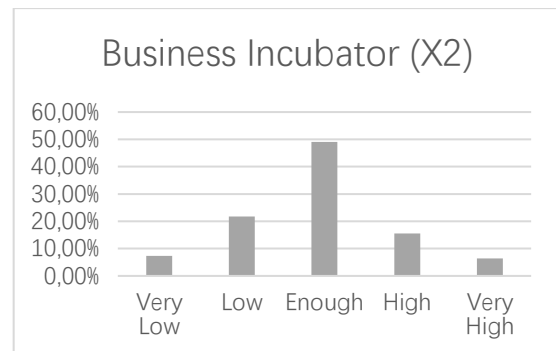
3.1.2. Business Incubator (X2)

Data for the business incubator variables were collected from data distribution in the form of a questionnaire with 12 items with 1-4 alternative answers. Then the maximum score is 48, and the lowest score is 23, according to the results on the study. The results on the description of the technopark program data are in Table 3.

Table 3. Descriptive Statistics the Business Incubator

No	Category	Intervals	Frequency	Percentage
1.	Very Low	23.00 – 28.00	8	7.3 %
2.	Low	28.01 – 32.00	24	21.8 %
3.	Sufficient	32.01 – 36.00	54	49.1 %
4.	High	36.01 – 40.00	17	15.5 %
5.	Very High	40.01 – 48.00	7	6.4 %
		Total	110	100 %

According to the business incubator descriptive statistics in Table 3. Students who believe the business incubator has a very high influence to entrepreneurship interest by 6.4% are described in the table above, 15.5% of students think the technopark program's contribution falls under the high category. Some students make selections in the 49.1% sufficient category. While several other students fell into the low group with a proportion of 21.8% and 7.3% of students believed the business incubator had a very low impact on their interest in entrepreneurship. Figure 3 displays specifics of the research data score outcomes for the business incubator variables.

**Figure 3.** the business incubator variable frequency (X2) distribution diagram

3.1.3. Interest in Entrepreneurship (Y)

Data for interest in entrepreneurship variables were collected from data distribution in the form of a questionnaire with 15 items with 1-4 alternative answers. Then the maximum score is 54, and the lowest score is 30, according to the results on the study. The results on the description of the interest in entrepreneurship data are in Table 4.

Table 4. Descriptive Statistics the Interest in Entrepreneurship

No	Category	Intervals	Frequency	Percentage
1.	Very Low	30.00 – 36.50	12	10.9 %
2.	Low	36.51 – 41.50	20	18.2 %
3.	Sufficient	41.51 – 46.50	46	41.8 %
4.	High	46.51 – 51.50	30	27.3 %
5.	Very High	51.51 – 54.00	2	1.8 %
		Total	110	100 %

According to the interest in entrepreneurship descriptive statistics in Table 4. Students who believe the interest in entrepreneurship has a very high influence to entrepreneurship interest by 1.8% are described in the table above. 27.3% of students think the technopark program's contribution falls under the high category. Some students make selections in the 41.8% sufficient category. While several other students fell into the low group with a proportion of 18.2% and 10.9% of students believed the interest in entrepreneurship had a very low impact on their interest in entrepreneurship. Figure 4 displays specifics of the research data score outcomes for the business incubator variables.
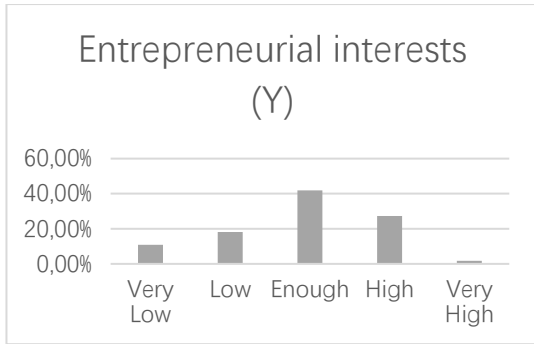
Figure 4. the interest in entrepreneurship variable frequency (Y) distribution diagram

3.2 Inferential Analysis

Multiple regression analysis is used in the inferential analysis of this study. Before carrying out the regression analysis, a prerequisite analysis test was carried out. The prerequisite test described is the basic assumption in the form of (1) normality test and (2) linearity test. While the classical assumptions include (1) the multicollinearity test, (2) the heteroscedasticity test, and (3) the autocorrelation test.

3.2.1. Prerequisite Test

3.2.1.1. Normality Test

Ascertain if the distribution of the study data is normally distributed or not, the normality test is utilizing. The data must be normally distributed in order for the requirements to be satisfied. The test uses the Kolmogorov-Smirnov test in the SPSS software with a significance threshold of 0.05. If the estimated significance value is more than 0.05, the data are regarded as normal. The following are the findings of the normalcy test's significant value:

Table 5. Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		110
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	4.01528602
Most Extreme Differences	Absolute	.085
	Positive	.079
	Negative	-.085
Test Statistic		.085
Asymp. Sig. (2-tailed)		.051[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Based on Table 5 kolmogorov-smirnov test. The results of significance in this research study have a significance value of 0.051 > 0.05 based on the Kolmogorov Smirnov one sample test table and that can be concluding that the data that's normally distributed because it has a significance value of more than 0.05.

3.2.1.2. Linearity Test

The linearity test determines whether there is a linear relationship between the independent variables and that dependent variable. According to the requirements of the linearity test, there is a linear relationship between the independent variable and the dependent variable if sig. >0.05. Tests were carried out using the SPSS 25 program. Each independent and dependent variable was tested separately. The requirements specify that it must be linear. The results of the linearity test for each independent variable on the dependent variable are as follows:

Table 6. Technopark Program Variables (X1) Subjected to A Linearity Test with An Entrepreneurship Interest (Y)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Entrepreneurial interests * technopark	Between Groups	(Combined)	1122.722	20	56.136	2.792	.001
		Linearity	487.578	1	487.578	24.247	.000
		Deviation from Linearity	635.144	19	33.429	1.662	.058
	Within Groups		1789.678	89	20.109		
	Total		2912.400	109			

Based on table 6, technopark and interest in entrepreneurship have a linear relationship, as evidenced by the results of the linearity test on the variable technopark (X1) and interest in entrepreneurship (Y), which can be seen from the departure that has a significant value of 0.058 > 0.05.

Based on table 7, there is a linear relationship between business incubators and an interest in entrepreneurship as evidenced by the deviation from which has a significance value of 0.185 > 0.05 and based on the results of the linearity test on the business incubator variables with entrepreneurial interests.

Table 7. Business Incubator Variables (X2) Subjected to A Linearity Test with An Entrepreneurship Interest (Y)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Entrepreneurial interests * business incubators	Between Groups	(Combined)	1537.381	20	76.869	4.975	.000
		Linearity	1146.837	1	1146.837	74.231	.000
		Deviation from Linearity	390.543	19	20.555	1.330	.185
	Within Groups		1375.019	89	15.450		
	Total		2912.400	109			

3.2.1.3. Multicollinearity Test

The multicollinearity test is used to determine whether or not each independent variable thats connected to the others. The relationship to the dependent variable may be thrown off if there is a relationship between the independent variables. The absence of multicollinearity is a criterion. Testing assistance this provided by SPSS software. The test results this based on the Variance Inflation Factor (VIF) number, which must be less than 5, and the tolerance value, which must be larger than 0.1 and less than 1.

Table 8. Multicollinearity Test

Coefficients[a]

		Collinearity Statistics	
Model		Tolerance	VIF
1	Technopark	.660	1.516
	Business Incubator	.660	1.516

a. Dependent Variable: Entrepreneurial interests

According to the multicollinearity test in table 8. The requirements for assessing a multicollinearity test are if the tolerance value is > 0.100 and VIF 1. Based on the tolerance table that is based on the data in the Collinearity Statistics table above, there are no symptoms of multicollinearity.

1. The Technopark variable has a tolerance value of 0.660 and a VIF value of 1.516

2. The business Incubator variable has a tolerance value of 0.660 and a VIF value of 1.516

Based on the tolerance and VIF values, the results of the multicollinearity test can used to determine whether the multicollinearity assumption test has been met.

3.2.1.4. Heteroscedasticity Test

Heteroscedasticity test to determine whether there is an uneven distribution of residual variance across all observations in the regression model. The conditions that could be meet in the heteroscedasticity test are that the variance of the residual or homoscedasticity must be the same. Heteroscedasticity testing uses the SPSS application through the scatter plot method to plot ZPRED values (predictive value) versus SRESID (residual value). Heteroscedasticity will not occur if the points in the final output are random, do not form a visible pattern, and spread above and below the value 0 on the Y axis. Figure 5 displays the results of the heteroscedasticity test using a scatterplot showing that the points this spread below and above 0 in both vertical and horizontal directions. Because the pointing is not grouped or forms a particular pattern, the data is free from signs of heteroscedasticity.
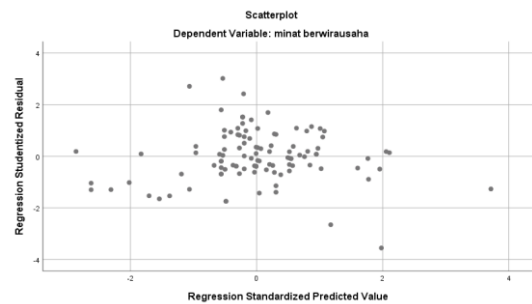
Figure 5. Results of the heteroscedasticity test

3.2.1.2. Autocorrelation Test

A regression model is said to be good if there is no autocorrelation. Autocorrelation tests can generated from sequential observations across time that are connected. The testing the autocorrelation assumption, only time series data or cross-sectional data thats used with regular sequence patterns between observations and to determine whether there is autocorrelation, Durbin-Watson values that used.

Table 9. Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.630[a]	.397	.385	4.05264	2.051

a. Predictors: (Constant), business incubators, technopark

b. Dependent Variable: entrepreneurial interests

Based on the above data on table 9, the autocorrelation test in this study used Durbin Watson. The assessment criteria for the Durbin Watson test, if the DU <D <4-DL value, then autocorrelation does not occur. based on the Durbin Watson table with the number of respondents 110 and K (number of independent variables) = 2, it is found that the value of DU: 1.7262 DL: 1.6523 and 4-DL: 2.2738. Based on the table of DU and DL values above, it that found that the results are DU < D < 4-DL = 1.7262 < 2.051 < 2.2738 and it can concluded that the data does not experience symptoms of autocorrelation.

3.3 Hypothesis testing

To find out how much the contribution of the independent factors is to changes in the dependent variable either partially or simultaneously, hypothesis testing that's carried out. Multiple linear regression tests through the SPSS program that used in testing. Test Multiple linear regression analysis in this study was conducted to test the hypothesis, namely the contribution of technopark and business incubator programs to students' interest in entrepreneurship at SMKN 4 Malang. The results of the evaluation of each hypothesis are as follows.

3.3.1. Partial Hypothesis Test T

Based on Table 10 partial hypothesis test T. The purpose of the partial test is to test the effect of each independent variable on the dependent variable. This test done by comparing the t count with the t table or by looking at the significant column in each t count. The assessment criteria for the t-test if the significance table is <0.05, then the variable has a significant effect on the dependent variable.

Table 10. Partial Hypothesis Test T

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.419	3.673		3.925	.000
	technopark	.083	.117	.065	.707	.481
	Business incubator	.777	.122	.589	6.375	.000

a. Dependent Variable: entrepreneurial interests

3.3.2. Simultaneous Hypothesis Test F

Based on Table 11 simultaneous hypothesis test F. Simultaneous test (F test) that's used to determine whether all independent factors have the same effect on the dependent variable. The F test is useful to the testing

whether there is an influence of the technopark program (X1), business incubator (X2), and a combination of X1 and X2 on interest in entrepreneurship (Y). The assessment criterion for testing the f hypothesis is to compare the significant value (sig.) or the probability value of the ANOVA output if the sig. <0.05, then there is a simultaneous (simultaneous) effect between the independent variables on the dependent variable.

Table 11. Simultaneous Hypothesis Test F

ANOVAᵃ

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1155.045	2	577.523	35.164	.000ᵇ
	Residual	1757.355	107	16.424		
	Total	2912.400	109			

a. Dependent Variable: Entrepreneurial interests

b. Predictors: (Constant), business incubators, technopark

3.3.3. Determination Coefficient Test

The coefficient of determination that used to measure the proportion of all independent variables that had an impact on the dependent variable. The results of testing the coefficient of determination that shown in Table 12:

Table 12. Determination Coefficient Test

Model Summaryᵇ

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.630ᵃ	.397	.385	4.05264	2.051

a. Predictors: (Constant), business incubators, technopark

b. Dependent Variable: entrepreneurial interests

4. DISCUSSION

The results of the study revealed that only one variable contributed significantly. The impact of each of the variables studied will be discussed either partially or simultaneously.

4.1 Contribution of the technopark program to the interest in entrepreneurship (X1 to Y)

The results of the analysis of the contribution of the technopark program have a percentage of 0.481 (0.481 > 0.05). That states that there is no partial influence between the technopark program variables and students' interest in entrepreneurship.

Research that is relevant to the contribution of the technopark program to the interest in entrepreneurship, one of which is research conducted by Dwi. The results of this study indicate that before the revitalization was carried out, the service was a simple UPJ which then

transformed into a technopark. That's the biggest obstacle experienced by technopark, namely the lack of human resources [14]. However, currently a gradual increase in the use of services is being carried out to support the revitalization of SMKs through technoparks that have adequate and standardized services. It is hopping that the technopark program can become a means for students to increase their interest in entrepreneurship.

Irani's research found that several challenges faced by SMKs in realizing technoparks were by the technopark ideas introduced by the PSMK directorate, one of which was the lack of productive teachers and inadequate facilities and infrastructure [15]. These two factors can trigger the high and low interest of vocational students in entrepreneurship. Haizam's research is known that the success of Technopreneurship is influenced by internal and external factors [16].

4.2 Contribution of business incubators to interest in entrepreneurship (X2 to Y)

The results of the analysis of the direct contribution of the business incubator to the interest in entrepreneurship, state that there is a partial influence between the variables of the business incubator and students' interest in entrepreneurship. The percentage of this variable is 0.000 (0.000 <0.05). As a result, the contribution of the business incubator influences the interest in entrepreneurship. The results of this study were supported by Veny Mayasari. It was founding that there were differences in student entrepreneurial interests before and after participating in business incubator activities, with a significance level of 0.000. The average student interest in entrepreneurship increased by 1,960 points after participating in business incubator activities compared to before [17].

Another related research was conducted by Lasrado, obtained results the business incubators can increase the competitiveness of young entrepreneurs and foster entrepreneurial aspirations, which can have an impact on economic growth and expansion [18]. Based on the two research supports, it can concluded that the mindset of students has changed as a resulted of business incubator activities and will have a good impact on economic growth.

4.3 Contribution of technopark and business incubator programs to entrepreneurial interest (X1 and X2 to Y)

Based on the table of test results f and sig. 0.000 (0.000 < 0.05), it is clear that the technopark program and business incubator have a simultaneous impact on the interest in entrepreneurship. Supported by the test results of the coefficient of determination (R2) the table shows that the magnitude of the value obtained in the R square table is 0.397. It can concluded that the effect of the technopark program and business incubator on students' interest in entrepreneurship is 39.7% and the remaining 60.3% is influenced by many additional factors not mentioned in the study.

The results of this study are in line with Smirnova's research entitled Transfer of Knowledge and Its Impact on Integration Processes in The Technopark. This study discusses one way to build students' interest in entrepreneurship through the findings of interviews with the director of technopark. One way is to prepare students as start-up candidates starting as early as possible, namely when students in class X continue while studying Creative Products and Entrepreneurship (PKK) courses in class XI, so that students are accustomed to the world of work and have the knowledge and ability to use manufacturing equipment. This method makes the technopark an inventive ecosystem and ensuring thats the transfer of knowledge between participants through the development of organizational culture and instilling character values can be maximized (Smirnova in Economics et al., 2019). If the program thats implemented well, there is great hope for the development of interest in entrepreneurship in students.

The results of this study are in line with Smirnova's research. This study discusses one way to build students' interest in entrepreneurship through the findings of interviews with the director of technopark. One way is to prepare students as start-up candidates starting as early as possible, namely when students in class X continue while studying Creative Products and Entrepreneurship (PKK) courses in class XI, so that students are accustomed to the world of work and have the knowledge and ability to use manufacturing equipment. This method makes the technopark an inventive ecosystem and ensuring thats the transfer of knowledge between participants through the development of organizational culture and instilling character values can be maximized [19]. If the program thats implemented well, there is great hope for the development of interest in entrepreneurship in students.

The contribution of business incubators to interest in entrepreneurship thats found in Raya's research, which found that business incubators as a means of teaching entrepreneurship at SMK Muhammadiyah 2 Malang are ideal. That can be seen from the increasing interest of students to take part in entrepreneurship education. Students can practice the entrepreneurial principles they have learned in class in a business incubator. Some students may have mastered the skills necessary for managing finances, selling and reading business prospects. As a result, business incubators can help students develop their interest in entrepreneurship [20]. According to Budiyanto's research, shows that business incubator activities can be a means of developing management understanding (organization, production, finance, and marketing), providing entrepreneurial

knowledge, and supporting the growth of entrepreneurial motivation [21].

5. CONCLUSIONS AND RECOMMENDATIONS

The conclusion from data analysis shows no significant effect of the technopark program (X1) on students' interest in entrepreneurship. Meanwhile, there is a partial significance in the business incubator variable (X2). Furthermore, the technopark program and business incubator simultaneously contribute significantly to the interest in entrepreneurship. The business incubator as to the technopark program shows a higher impact on growing students' interest in entrepreneurship. Thus, business incubators' optimization in schools is crucial to boost student interest in entrepreneurship.

Given the large contribution of the technopark program and business incubator. The principal of SMKN 4 Malang is advised to be able to routinely monitor and evaluate all stakeholders related to technopark program services and business incubators. Ensure that the services provided are of high quality, according to the needs and expectations of students, this will make a positive contribution in the future in terms of increasing student interest in entrepreneurship. Future researchers, they should be able to include other independent variables that influence students' interest in entrepreneurship at SMKN 4 Malang.

ACKNOWLEDGMENTS

REFERENCES

[1] Fikri, I., & Anis, A. (2023). Pengaruh Upah, Pertumbuhan Ekonomi, dan Inflasi Terhadap Pengangguran Di Indonesia. *Jurnal Kajian Ekonomi dan Pembangunan*, *5*(1), 37-44.

[2] anonimus. (2022). Keadaan Ketenagakerjaan Indonesia Agustus 2022. Badan Pusat Statistik,

[3] Hapsari, A., Nurlaela, S., & Titisari, K. H. (2019). Human resources optimization and utilization of accrual based accounting information technology on performance of surakarta city government financial reporting. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, *3*(01), 43-46.

[4] Muhammad, Y. (2018). Era industri 4.0: Tantangan dan peluang perkembangan pendidikan kejuruan Indonesia.

[5] Ardiyani, N. P. P., & Kusuma, A. A. A. (2016). *Pengaruh sikap, pendidikan dan lingkungan keluarga terhadap minat berwirausaha* (Doctoral dissertation, Udayana University).

[6] Alimudin, A. (2015). Strategi pengembangan minat wirausaha melalui proses pembelajaran. *E-Jurnal Manajemen Kinerja*, *1*(1), 1-13.

[7] Mila, H. (2013). Pendidikan kewirausahaan: Sebuah alternatif mengurangi pengangguran terdidik dan pencegahan korupsi. *Al-Ta lim Journal*, *20*(3), 465-471.

[8] Haq, A. M. Pengaruh Program Technopark dan Kinerja Guru Terhadap Kompetensi Peserta Didik di SMK PGRI 1 Gresik.

[9] Irsyad, I., & Effendi, A. F. (2023). Manajemen Teaching factory di SMK; Masalah dan Tantangannya. *Innovative: Journal Of Social Science Research*, *3*(5), 11338-11346.

[10] Purwaningsih, A., Herawati, A., Pudianti, A., & Septiari, E. D. (2017). Crafting a Model of Student Entrepreneurs through Business Incubators. *Review of Integrative Business and Economics Research*, *6*(2), 312.

[11] Famiola, M., & Hartati, S. (2018). Entrepreneurship learning system in business incubators: An case study in Indonesia. *International Journal of Engineering & Technology*, *7*(4.28), 57-62.

[12] Sajilan, S., & Tehseen, S. (2015). Cultural orientations, entrepreneurial competencies and SMEs business success: The contingent roles of environmental turbulence and network competence. *Review of Integrative Business and Economics Research*, *4*(2), 20.

[13] Saptono, A. (2017, April). Menumbuhkan Intensi Berwirausaha Siswa Smk Melalui Inkubasi Bisnis. In *Prosiding Seminar Pendidikan Ekonomi Dan Bisnis* (Vol. 3, No. 1).

[14] Lestari, S. D., Muchsin, S., & Suyeno, S. (2021). REVITALISASI SMK BERBASIS TECHNOPARK SEBAGAI UPAYA OPTIMALISASI PELAYANAN PERCETAKAN UNTUK MASYARAKAT DI SMKN 4 MALANG. *Respon Publik*, *15*(10), 40-44.

[15] Maulana, R., Akbar, R., & Zahara, R. (2022). Teaching Factory sebagai Bagian dari Edupreneurship: Strategi Revitalisasi SMK melalui Technopark. *Jurnal Penelitian Progresif*, *1*(1), 67-78.

[16] Wijaya, N. P. N. P., & Ichsani, S. (2016). Role of techno park for create technopreneurship in

education industry case study: Bandung techno park. 8th Widyatama International Seminar on Sustainability (WISS 2016), Widyatama University, 5-8.

[17] Mayasari, V., Liliana, L., & Seto, A. A. (2019). Dampak Inkubator Bisnis Terhadap Minat Berwirausaha Mahasiswa di Universitas Tridinanti Palembang. *Jkbm (Jurnal Konsep Bisnis Dan Manajemen)*, *6*(1), 13-23.

[18] Lasrado, V., Sivo, S., Ford, C., O'Neal, T., & Garibay, I. (2016). Do graduated university incubator firms benefit from their relationship with university incubators?. *The Journal of Technology Transfer*, *41*, 205-219.

[19] Smirnova, V., Latfullin, G., Baziyan, J., Sundukova, G., Shramchenko, T., & Seidina, M. (2019, December). Transfer of knowledge and its impact on integration processes in the technopark. In *International Conference on Man-Power-Law-Governance: Interdisciplinary Approaches (MPLG-IA 2019)* (pp. 220-225). Atlantis Press.

[20] Sulistyowati, R. (2021). The effectiveness of the Business Incubator and Entrepreneurial Education in Interest to Start a Business in Vocational School students majoring in Marketing. *Studies in Learning and Teaching*, *2*(1), 29-40.

[21] Budiyanto, H., Suprapto, A., & Poerwoningsih, D. (2017, September). Program pengembangan kewirausahaan dalam bentuk inkubator bisnis di perguruan tinggi bagi mahasiswa pemilik usaha pemula. In *Seminar Nasional Sistem Informasi (Senasif)* (Vol. 1, pp. 385-394).