

IDENTIFICATION OF THE INFLUENCE OF ACADEMIC'S PERSONAL CHARACTERISTICS AND ACADEMIC'S PERCEIVED SUPPORT ON UNIVERSITY STUDENTS' INTENTION TO BECOME TECHNOPRENEUR

Mediany Kriseka Putri

Grisna Anggadwita

Mukti Bawono Wicaksono

Sekolah Ekonomi dan Bisnis, Universitas Telkom, Bandung, Indonesia

Abstract: Entrepreneurship is one of the driving factors of the country's economy. More entrepreneurs mean more potential for new business areas and thus more employment to grow. The development of industrial revolution 4.0 encourages entrepreneurs to be technological entrepreneurs to face increasing competition. It is important for the university, an educational institution, to produce graduates who can compete in the era of Industry 4.0 and provide solutions to state problems such as poverty and unemployment. Hence, measuring students' intention to become a technopreneur is necessary to see whether the university can prepare its students to become technopreneur who will be useful for the country and society. This study aims to measure the influence of factors in academic's personal characteristics and academic's perceived support on the university students' intention to become technopreneur.

Keywords: Entrepreneurship, Technopreneur, Academic's personal characteristics, Academic's perceived support, Entrepreneur, Technopreneurship

Cite this article as: Putri, M. K., Grisna A., and Mukti B. W. 2019. *Identification of the Influence of Academic's Personal Characteristics and Academic's Perceived Support on University Students' Intention to Become Technopreneur*. Jurnal Aplikasi Manajemen, Volume 17, Number 2, Pages 366–379. Malang: Universitas Brawijaya. <http://dx.doi.org/10.21776/ub.jam.2019.017.02.20>



Journal of Applied
Management (JAM)
Volume 17 Number 2,
June 2019
Indexed in Google Scholar

Corresponding Author:
Mediany Kriseka Putri,
Sekolah Ekonomi dan Bisnis,
Universitas Telkom, Bandung,
Indonesia, E-mail:
mediany.kris@gmail.com,
DOI: <http://dx.doi.org/10.21776/ub.jam.2019.017.02.20>

Increasing the number of entrepreneurs is the focus of many countries in the world. The reason is that entrepreneurs can boost the economy of a country. In 2018, the number of entrepreneurs in Indonesia reached 3.1% of the total population. A survey from the Global Entrepreneurship Monitor (GEM) in

2013 showed that the desire for entrepreneurship in Indonesia was the second highest in ASEAN (Putra, 2018). Growth in entrepreneurship increased from year to year; the number of entrepreneurs increased from 1.64% in 2014 to 3.1% at the end of 2018, and the increase was predicted to continue in the following years (Liputan 6, 2018). This shows that there is a great interest among the Indonesian people in entrepreneurship. Many systems are made to be online and integrated in today's era of Industry 4.0, which are causing entrepreneurs to turn to

technology to face a competitive environment. Based on the data reported by the Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UKM), around 3.79 millions micro, small and medium enterprises (MSMEs) have used online platforms to market their products (Yuliani, 2017).

The industrial revolution 4.0 is a system that integrates the online world with industrial production. The revolution can increase production efficiency due to the use of digital technology and automation, as well as changes in the composition of employment. Thus, technopreneurship is the future trend for the world in this digital business era. However, developing competitive entrepreneurs is a big challenge, according to a survey from the Global Entrepreneurship Monitor (GEM) (Koe, et al., 2018).

Developing young human resources to be innovative and entrepreneurial is very important in facing the challenges posed by the Industry 4.0 (Koe, et al., 2018). The academic environment contributes indirectly to technology transfer activities by providing highly educated and qualified human resources for the industry. Universities and other higher education institutions are important sources of new scientific knowledge, both technical and entrepreneurship related knowledge. Thus, the development of technological entrepreneurship, or what is often called technopreneurship, is closely related to the world of education, especially the students (Prodan, 2007). According to Dwi Larso, Deputy Chairperson of the ITB Alumni Association, when more graduates are ready to become technopreneurs, many industrial problems will be solved because technopreneurs can generate a lot of value for the country (Tiffany, 2017). Thus, the education world must be able to create graduates who can compete in the era of Industry 4.0 (Rahman, 2018). Universities are now being pressured to produce more graduates who can become technopreneurs (Tiffany, 2018).

LITERATURE REVIEW

Technopreneurship

Technopreneurship is a combination of words derived from the "technology" and "entrepreneurship" (Mopangga, 2015). Technopreneurship is a

strong willingness to master technology which has synergy in its process and a thorough understanding of the concept of entrepreneurship. Technopreneurship combines the concepts of entrepreneurship and technology.

Model of Academic's Intention to Become Technological Entrepreneurs

The model that forms the basis of this study refers to the model from research conducted by Prodan in Slovenia about Technopreneurship (Prodan, 2007). This research model in technopreneurship consists of 7 main stakeholders, namely: technopreneur, university, company, capitalization, market/consumer, government, and consultant.

Student Intention to Become a Technopreneur

Entrepreneurial intention determines the interest or desire of a person to be an entrepreneur. As quoted by Trihudiyatmanto, the entrepreneurial intention is defined as a process of finding information that can be used to achieve the goal of forming a business. Someone to start a business will have better readiness and progress in running a business compared to someone without the intention to start a business (Trihudiyatmanto, 2017).

Academic's Personal Characteristics

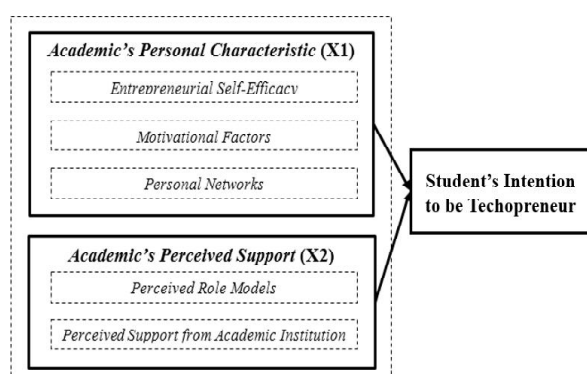
According to his research, Sunaga argues that personal characteristic and educational effectiveness are interrelated with each other (Sunaga Yusuke, et al., 2017). Karimi argues that according to many studies, there are many factors related to an individual's intention to start a business, including individual personalities and environmental contexts (Karimi, et al., 2015). Academic's personal characteristics have some indicators that is entrepreneurial self-efficacy, motivational factors, and personal networks (Prodan, 2007).

Academic/Academic-Entrepreneur's Perceived Support

Academic support is important to arouse the desire for entrepreneurship through self-efficacy, this desire arises when students are facilitated to get more experience in conducting entrepreneurial

practices and not only be supported through entrepreneurial education (Ikhtiangung and Soedihono, 2018). The university provides a role in increasing entrepreneurial interest in the students. Academic's perceived support has some indicators, that is perceived role models and Perceived Support from Academic Institution (Prodan, 2007).

Frame of Thoughts



Source: Author's Research, 2019

Figure 1 *Frame of Thoughts*

The above frame of thoughts explains that Academic's Personal Characteristics variable (with indicators such as entrepreneurial self-efficacy, motivational factors, and personal networks) and Academic's perceived support (with indicators such as perceived role models and perceived support from the academic institution) are related to students' intention to become technopreneur. This frame of thoughts is taken from the research of Prodan (2007) entitled *Technological Entrepreneurship: Technology Transfer from Academia to New Firms*. In Prodan's research, it is known that his frame of thoughts model has an X3 variable, namely the academic's working environment, but the author does not use that variable because the object examined in the academic's working variable is not the same with the object of this research. The research object in the academic's working environment refers to higher academic levels.

Hypothesis

- H1: Academic's Personal Characteristic (X1) has a positive effect on the intentions of Telkom University students to become technopreneur (Y).
 H0: Academic's Personal Characteristic (X1) does not have a positive effect on the intentions of Telkom University students to become technopreneur (Y).
 H2: Academic's Perceived Support (X2) has a positive effect on the intentions of Telkom University students to become technopreneur (Y).
 H0: Academic's Perceived Support (X2) does not have a positive effect on the intentions of Telkom University students to become technopreneur (Y).

Simultaneous Hypothesis

- H1: Academic's Personal Characteristic (X1) and Academic's Perceived Support (X2) simultaneously have a significant effect on the intentions of Telkom University students to become technopreneur (Y).
 H0: Academic's Personal Characteristic (X1) and Academic's perceived support (X2) simultaneously do not have a significant effect on the intentions of Telkom University students to become technopreneur (Y).

METHOD

Method of Successive Interval

One of the requirements for parametric analysis is that the data should at least be interval data. Therefore ordinal data obtained from the results of the questionnaire must first be transformed into interval data. To solve this problem, the measurement scale needs to be transformed into an interval scale through the "Method of Successive Interval" (Triono, 2014), with the following steps:

- First, note each item in the respondent's answer from the distributed questionnaire.
- On each item, determine how many people get a score of 1, 2, 3, 4, and 5, which is referred to as frequencies.

- Each frequency is then divided by the number of respondents, and the result is called proportion.
- Determine the value of cumulative proportion by adding the proportions in sequence per column score.
- Use the normal distribution table to calculate the Z value for each cumulative proportion obtained.
- Determine the high density value for each Z value obtained (using the High Density table).
- Determine the scale value using the formula:

$$NS = \frac{(Density\ at\ Lower\ Limit) - (Density\ at\ Upper\ Limit)}{(Area\ Under\ Upper\ Limit) - (Area\ Under\ Lower\ Limit)}$$

- $Y = NS[1 + [NS_{min}]]$ Determine the transformation value using the formula:

Research variables

Indrawati (2015), defines variables as everything that can affect the value, and those values can vary and change. In this study, the variables used are independent and dependent variables. Independent variables are variables that are directly used to answer research problems (Indrawati, 2015: 73). Dependent variables are variables that are influenced by other variables (Indrawati, 2015). In this research, the independent variables used are:

X1: Academic's Personal Characteristic
X2: Academic's Perceived Support

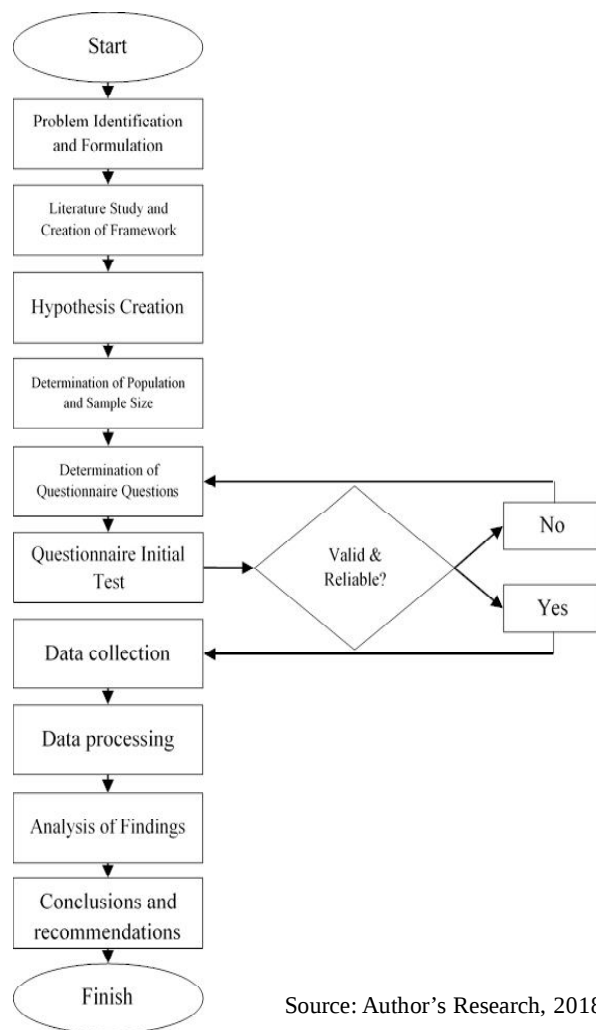
The dependent variable used in this research is:

Y: Students' Intention to Become Technopreneur

These variables are the basis for the preparation of questionnaire questions used in this study. The following are the definitions and operational variables used in this research.

Stages of Research

The author took several steps to complete the research. The sequence of the research process is described as follows.



Source: Author's Research, 2018

Figure 1 Stages of Research

Population and sample size

A population is a group of people, events, objects that attract researchers to research on them (Indrawati, 2015). Whereas, according to Sujarweni (2015). The population is the total number of objects or subjects that have certain characteristics and qualities, which are set to be researched and to conclude from by the researcher. The population in this research is the diploma and Strata 1 student of Telkom University in 2018/2019 academic year. The total number of the population is:

Table 1 Population

Faculty	Total number of students	Percentage of total
Computer Engineering	2.432	9.92 %
Electrical Engineering	4.710	19.21 %
Economics and Business	3.629	14.80 %
Industrial Engineering	3.349	13.67 %
Applied Sciences	2.754	11,23 %
Creative Industry	4.178	17,04 %
Business Communication	3.464	14,13 %
Total	24.516	100 %

Source: Higher Education Database, 2018

Samples are members of the selected population to be included in the study, either to be observed, treated, or asked for opinions on the problem being studied. The sampling technique used in this study is non-probability sampling. Non-probability sampling is a sampling technique that does not allow members in the population to have an equal opportunity to be chosen, or it cannot be determined whether members have equal opportunity to be chosen or not. The type of sampling used is quota sampling. Quota sampling is the type of convenience sampling from a limited population with a predetermined number of samples. Convenience sampling is done by conveniently choosing some members to be sampled to provide the information needed for the research (Indrawati, 2015)

Sampling is used because the population in this study is too large, and it is not possible to research all members of the population. The number of required samples is determined using the Slovin formula. The population is 22,895 persons, and the desired level of confidence is 95% (5% error rate). Slovin formula, according to Roscoe (1975) in Sujarweni (2015), is as follows:

$$n = \frac{N}{1 + (N \times e^2)}$$

Where:

n = Sample size

N = Population

e = Margin of error. Thus, the calculation of the number of samples to represent the population in this research is:

$$n = \frac{24516}{1 + (24516 \times 0.05^2)}$$

$$n = 394$$

So, the researchers determined the sample size to be 394 Diploma 1 Telkom University students in 2018/2019 academic year. From the total sample size, the composition of the sample size for each faculty was determined by

$$n_i = \frac{N_i}{N} \times n$$

Where:

n_i = Sample size of each faculty

N_i = Population of each faculty

n = Sample size

N = Population

Table 2 Samples

Faculty	Total number of students (N_i)	Percentage of total	Samples (n_i)
Computer Engineering	2.432	9.92 %	39
Electrical Engineering	4.710	19.21 %	76
Economics and Business	3.629	14.80 %	58
Industrial Engineering	3.349	13.67 %	54
Applied Sciences	2.754	11,23 %	44
Creative Industry	4.178	17,04 %	67
Business Communication	3.464	14,13 %	56
Total	24.516	100 %	394

Sumber: Author's Research, 2018

Data Sources and Data Collection

The data source, based on how it is obtained, is considered as primary data, namely data that is directly obtained from the source. Primary data collection is done by using a tool in the form of a questionnaire. The questionnaire was sent to respondents via the internet using Google Form.

RESULTS

Descriptive Analysis

Recapitulation of Respondents' Responses Regarding Academic's Personal Characteristic (X1) Variable. The following are the results of the respondents' responses to the Academic's Personal Characteristic (X1) variable:

Table 3 Recapitulation of Respondents' Responses Regarding Academic's Personal Characteristic (X1) Variable

Indicator	Total score	Ideal score	%	Category
<i>Entrepreneurial Self-Efficacy</i>	1323.483	1970	67.18%	Pretty good
<i>Motivational Factors</i>	1599.60	1970	81.20%	Good
<i>Personal Networks</i>	1120.333	1970	56.87%	Pretty good
Average	1347.805	1970	68.42%	Good

Source: Author's Research, 2019

Based on the data in Table 3, the overall percentage of respondents' responses to the Academic's Personal Characteristic (X1) variable is 68.42%, which falls in the "Good" category. The interpretation criteria for the score on the Academic's Personal Characteristic (X1) variable can be seen in Figure 2 as follows.



Source : Author's Research, 2019

Figure 2 Continuum Line for Academic's Personal Characteristic (X₁) Variable

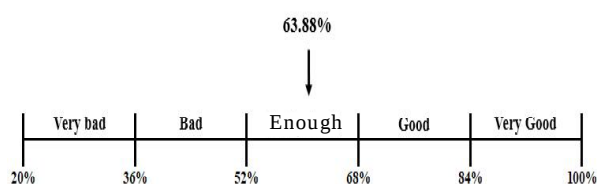
Recapitulation of Respondents' Responses Regarding Academic's Perceived Support (X₂) Variable. The following are the results of the respondents' responses to the Academic's Perceived Support (X₂) variable:

Table 4 Recapitulation of Respondents' Responses Regarding Academic's Perceived Support (X2) Variable

Indicator	Total Score	Ideal Score	%	Category
<i>Perceived Role Models</i>	1073.00	1970	54.47%	Pretty Good
<i>Perceived Support from Academic Institution</i>	1444.00	1970	73.30%	Good
Average	1258.5	1970	63.88%	Pretty Good

Source: Author's Research, 2019

Based on the data in Table 4, the overall percentage of respondents' responses to the Academic's Perceived Support (X₂) variable is 63.88%, which falls in the "Enough" category. The interpretation criteria for the score on the Academic's Perceived Support (X₂) variable can be seen in Figure 3 as follows.



Source: Author's Research, 2019

Figure 3 Continuum Line for Academic's Perceived Support (X_2) Variable

Table 5 Recapitulation of Respondents' Responses Regarding Students' Intention to Become a Technopreneur (Y) variable

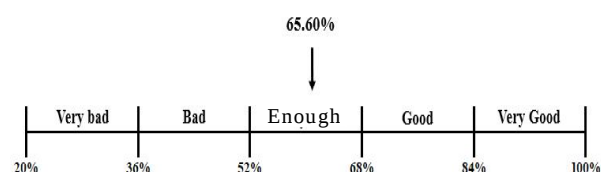
No. Item	Respondents' Answer Score					Total Score	Ideal Score	%	Category
	5	4	3	2	1				
48	62	142	102	84	4	1356	1970	68.83%	Good
49	35	64	183	106	6	1198	1970	60.81%	Pretty Good
50	47	147	133	62	5	1351	1970	68.58%	Good
51	43	147	129	72	3	1337	1970	67.87%	Pretty Good
52	38	108	106	138	4	1220	1970	61.93%	Pretty Good
Average						1292.40	1970	65.60%	Pretty Good

Source: Author's Research, 2019

From Table 5, the average responses of respondents regarding the Students' Intention to Become a Technopreneur (Y) variable can be known. The highest percentage for the Students' Intention to Become a Technopreneur (Y) variable occurs in question number 48 at table 5 (I am interested in building my own business) with a percentage of 68.83% in the "Good" category. While the lowest percentage in the Students' Intention to Become a Technopreneur (Y) variable occurs in question number 48 at table 5 (I have a high level of certainty that I will have my own company) with a percentage of 60.81% in the "Enough" category.

Overall the percentage of respondents' responses regarding the Students' Intention to Become a Technopreneur (Y) variable, which is equal to 65.60%, falls in the "Enough" category. The score interpretation criteria for Students' Intention to Become a Technopreneur (Y) variable can be seen in figure 4 below.

Recapitulation of Respondents' Responses Regarding Students' Intention to Become a Technopreneur (Y) variable. The following are the results of the processed data regarding the Students' Intention to Become a Technopreneur (Y) variable:

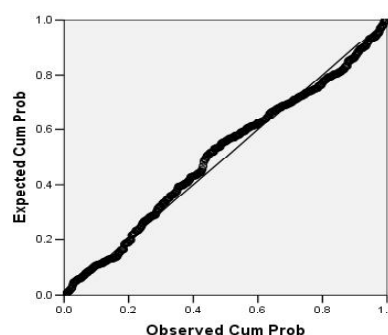


Source: Author's Research, 2019

Figure 4 Continuum Line for Students' Intention to Become a Technopreneur (Y) variable

Data Normality Test

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur (Y)



Source: Author's Research, 2019

Figure 5 Normality Test Graph

From Figure 5 above, we can see that the points spread around the line, and they follow the diagonal line. This shows that the model in this research is normally distributed.

Table 6 Probability Value Test Using One-Sample Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		394
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.01700388
Most Extreme Differences	Absolute	.067
	Positive	.047
	Negative	-.067
Kolmogorov-Smirnov Z		1.339
Asymp. Sig. (2-tailed)		.055

a. Test distribution is Normal.

b. Calculated from data.

Source: Author's Research, 2019

Based on Table 6, it can be known that the value of Kolmogorov-Smirnov Z is 1,339 with a probability value of 0.055. It can be concluded that the unstandardized residual data has normal distribution because the probability value of the estimation result is greater than the real level of significance set ($0.055 > 0.05$).

Multicollinearity Test

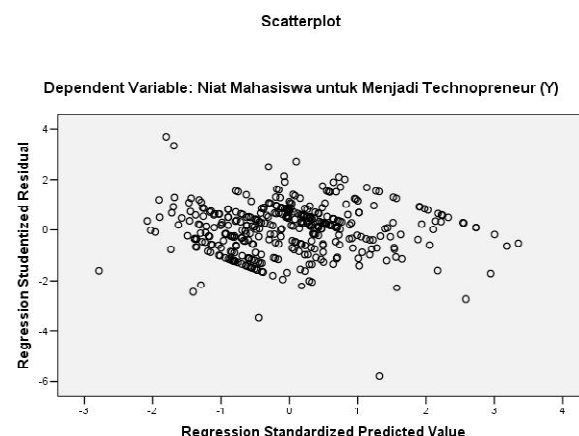
Table 7 Multicollinearity Test Data Results

Coefficients ^a			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Academic's Personal Characteristic (X1)	.987	1.013
	Academic's Perceived Support (X2)	.987	1.013

a. Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur (Y)

Based on Table 7 above, it can be observed that all the above variables pass the multicollinearity test because all variables have a tolerance value of > 0.1 and VIF value of < 10 . It can be concluded that all variables have no relationship between independent variables or no multicollinearity.

Heteroscedasticity test



Source: Author's Research, 2019

Figure 6 Heteroscedasticity Test Scatterplot

Based on the scatterplot in Figure 6, it can be observed that the distribution of residual data does not form certain patterns, the points scatter above and below number 0 on the Y axis, so it can be concluded that this regression model has no symptoms of heteroscedasticity. Or in other words, the regression model has fulfilled the assumption of homoskedasticity.

Table 8 Probability Value of Rank Spearman's Heteroscedasticity Test

Correlations			Abs Res1
Spearman's rho	Academic's Personal Characteristic (X1)	Correlation Coefficient	-.053
		Sig. (2-tailed)	.290
		N	394
	Academic's Perceived Support (X2)	Correlation Coefficient	-.058
		Sig. (2-tailed)	.254
		N	394

Source: Author's Research, 2019

Based on the data in Table 8, the probability value of each independent variable can be known: Academic's Personal Characteristic (X1) = 0.290 and Academic's Perceived Support (X2) = 0.254. It can be concluded that the data has fulfilled the assumption of homoskedasticity because the probability value of the estimation result for each independent variable is greater than the real level of significance set (0.05).

Multiple Linear Regression Analysis

Multiple Linear Regression Equation

The multiple regression model to be formed is as follows:

$$Y = a + b_1.X_1 + b_2.X_2 + \varepsilon$$

Where :

Y = Students' Intention to Become a Technopreneur

a = Intercept

b_{1,2} = Regression Coefficient

X₁ = Academic's Personal Characteristic

X₂ = Academic's Perceived Support

ε = Residue

With the help of the SPSS program, the output of the regression coefficient calculation is obtained as follows:

Table 9 Regression Coefficient Value

Coefficient ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	.241	1.321		.855
	Academic's Personal Characteristic (X1)	.141	.007	.701	.000
	Academic's Perceived Support (X2)	-.258	.047	-.198	.000

a. Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur (Y)

Source: Author's Research, 2019

From the output in Table 9, the intercept and the regression coefficient values are known so the multiple linear regression equation can be formed as follows:

$$Y = 0.241 + 0.141 X_1 - 0.258 X_2 + \varepsilon$$

a = 0.241 means that if the Academic's Personal Characteristic (X1) and Academic's Perceived Support (X2) variables are zero (0), then the Students' Intention to Become a Technopreneur (Y) will be 0.241 units, thus it can be seen that the regression lines cut the Y axis at 0.241 point. b₁ = 0.141 means that if the Academic's Personal Characteristic (X1) increases by one unit while the other variables are constant, then the Students' Intention to Become a Technopreneur (Y) will increase by 0.141 units. b₂ = -0.258 means that if Academic's Perceived Support (X2) increases by one unit while the other variables are constant, then the Students' In-

tention to Become a Technopreneur (Y) will decrease by 0.258 units.

Correlation Coefficient & Determination

With the help of the SPSS program, the output for the correlation coefficient estimation results is as follows.

Table 10 Product Moment Correlation Coefficient Value

Model Summary ^a				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.706 ^a	.499	.496	3.02471

a. Predictors: (Constant), Academic's Perceived Support (X2), Academic's Personal Characteristic (X1)

b. Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur (Y)

Source: Author's Research, 2019

From the analysis in Table 10, it can be known that the value of the correlation coefficient (R) is equal to 0.706. This value is then interpreted based on the following criteria.

Table 11 Correlation Coefficient and Its Interpretation

Coefficient Interval	Relationship Level
0,00 – 0,199	Very Low
0,20 – 0,399	Low
0,40 – 0,599	Average
0,60 – 0,799	Strong
0,80 – 1,000	Very Strong

Based on Table 11, the correlation coefficient of 0.706 indicates a strong relationship between the independent variables and the dependent variables.

After the correlation coefficient value is known, the determination coefficient can be calculated using the following formula.

$$\begin{aligned}
 KD &= R^2 \times 100\% \\
 &= (0.706)^2 \times 100\% \\
 &= 49.9\%
 \end{aligned}$$

Thus, KD value of 49.9% is obtained which shows that the Academic's Personal Characteristic (X1) and Academic's Perceived Support (X2) variables simultaneously contribute 49.9% in influencing Students' Intention to Become a Technopreneur (Y). While the remaining 50.1% is influenced by other factors not observed in this study.

Simultaneous Hypothesis Test

Hypothesis test:

$H_0 \rightarrow b_{YXi} = 0$ There is no significant influence from Academic's Personal Characteristic (X1) and Academic's Perceived Support (X2) simultaneously on Students' Intention to Become a Technopreneur (Y);

$H_1 \rightarrow b_{YXi} \neq 0$ There is significant influence from Academic's Personal Characteristic (X1) and

Academic's Perceived Support (X2) simultaneously on Students' Intention to Become a Technopreneur (Y)

Statistical test:

Test F at the significance level (α) = 5%.

Test criteria:

Reject H_0 and accept H_1 if $F_{count} \geq F_{table}$; or

Accept H_0 and reject H_1 if $F_{count} < F_{table}$.

With the help of the SPSS program, F_{count} value is obtained as follows:

Table 12 F_{count} Value for Simultaneous Hypothesis Test

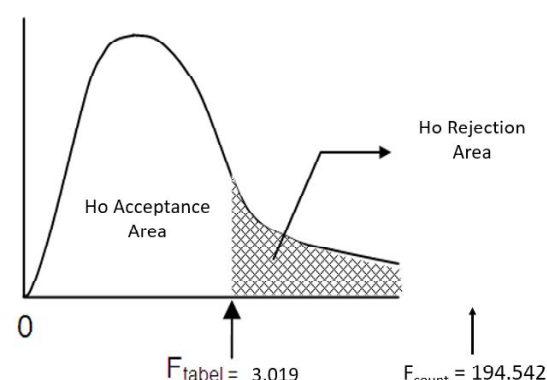
ANOVA					
Mode		Sum of Squares	df	Mean Square	F
1	Regression	59.673	2	1779.836	194.542
	Residual	77.209	391	9.149	
	Total	136.882	393		

a. Predictors: (Constant), Academic's Perceived Support (X2), Characteristic (X1)

b. Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur

Source: Author's Research, 2019

Based on the data in Table 12, F_{count} value is obtained to be 194.542. This value is then compared with the F value in F distribution table. For $\alpha = 5\%$, $df_1 = k = 2$, and $df_2 = n - k - 1 = 394 - 2 - 1 = 391$, F_{table} is obtained to be 3.019.



Source: Author's Research, 2019

Figure 7 Simultaneous Hypotheses Test Curve

Based on Figure 7, F_{count} is known to be larger than the value of F_{table} ($194.542 > 3.019$), so H_0 is rejected, and H_1 is accepted, which means that there is significant influence from Academic's Personal Characteristic (X_1) dan Academic's Perceived Support (X_2) simultaneously on Students' Intention to Become a Technopreneur (Y).

Partial Hypothesis Test (t-Test)

Hypothesis test:

- 1) $H_0 \rightarrow b_{yx1} = 0$ Academic's Personal Characteristic (X_1) does not have a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y);
 $H_1 \rightarrow b_{yx1} \neq 0$ Academic's Personal Characteristic (X_1) has a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y);
- 2) $H_0 \rightarrow b_{yx2} = 0$ Academic's Perceived Support (X_2) does not have a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y);
 $H_1 \rightarrow b_{yx2} \neq 0$ Academic's Perceived Support (X_2) has a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y);

Statistical test:

t-Test at significance level (α) = 5%.

Criteria used are as follows:

Reject H_0 and accept H_1 if $t_{count} \geq t_{table}$; or
Accept H_0 and reject H_1 if $t_{count} < t_{table}$.

With the help of the SPSS program, t_{count} value is obtained as follows:

Table 13 t_{count} Value for Partial Hypothesis Test

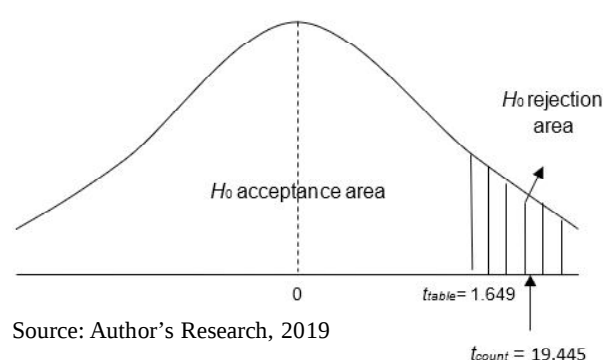
Model		Coefficients ^a		t	Sig.
		Unstandardized Coefficients	Standardized Coefficients		
		B	Std. Error	Beta	
1	(Constant)	.241	1.321		.855
	Academic's Personal Characteristic (X1)	.141	.007	.701	19.445
	Academic's Perceived Support (X2)	-.258	.047	-.198	-5.503

a. Dependent Variable: Niat Mahasiswa untuk Menjadi Technopreneur (Y)

Source: Author's Research, 2019

Based on the data in Table 13, t_{count} value for Academic's Personal Characteristic (X_1) variable is obtained to be 19.445 and Academic's Perceived Support (X_2) to be -5.503. The t_{count} values are then compared with the value in the t distribution table. For $\alpha = 5\%$ and $df = n - k - 1 = 394 - 2 - 1 = 391$, t_{table} value is obtained from t distribution table for one-sided test to be 1.649.

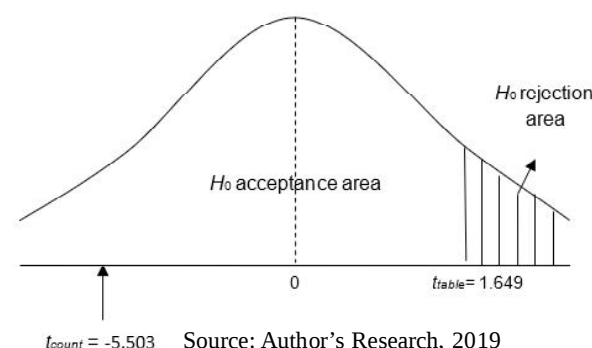
To make it easier to understand the test criteria, the t_{count} value and the t_{table} value are mapped into the two-sided test curve as follows.



Source: Author's Research, 2019

Figure 8 Partial Hypotheses Test Curve on the Influence of X_1 on Y

Based on the aforementioned test criteria, it can be observed that the t_{count} value for X_1 variable is within the H_0 rejection area ($19.445 > 1.649$). This shows that H_0 is rejected and H_1 is accepted, which means that Academic's Personal Characteristic (X_1) has a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y).



Source: Author's Research, 2019

Figure 9 Partial Hypotheses Test Curve on the Influence of X_2 on Y

Based on the aforementioned test criteria, it can be observed that the t_{count} value for X_2 is within the H_0 rejection area ($-5.503 < 1.649$). This shows that H_0 is accepted and H_1 is rejected, which means that Academic's Perceived Support (X_2) does not have a significant and positive effect partially on Students' Intention to Become a Technopreneur (Y);

DISCUSSIONS

Based on the descriptive analysis in this research, it can be observed that the average percentage score for the variable is at 66.15%. It can be observed that the two variables are in the "Enough" category on the continuum line and each variable has a score above 52% with different decimal values; the academic's personal characteristic variable has the higher value with a percentage value of 68.42%, which can be interpreted that the personality and character of an academic individual is more dominant in growing students' intention to become a technopreneur compared to academic's support, which can be in the form of technology entrepreneurship education and other supports in the form of facilities or programs such as start-up incubation programs and copyright commercialization facilities provided by Telkom University. Telkom University students tend to be more willing to become a technopreneur when they have the willingness within themselves. Based on the measurement results, the motivation factor in academic's personal characteristic is the most influential thing to foster students' intention to become a technopreneur with a percentage value of 81.20%. Strong motivation is likely to give birth to real action. While academic's perceived support has a lower rating with a percentage value of 63.88%, this number is not low because it still falls in the "Enough" category, and it can be interpreted that academic's support also influences students to grow their intentions as well as to develop their interest to become a technopreneur.

This research also determines the determination coefficient value be 0.49. This shows that the effect of Academic's Personal Characteristic (X_1) and Academic's Perceived Support (X_2) on Students' Intention to Become a Technopreneur (Y) in the regression model is at 49.9%, while the remain-

ing 50.1% is influenced by other variables that are not studied in this research. It can be interpreted that there is a correlation of 49.9% between academic's personal characteristic and academic's perceived support with students' intention to become a technopreneur. It can hence be concluded that simultaneously, the academic's personal characteristic and academic's perceived support variables have an effect of 49.9% on students' intention to become a technopreneur.

This research also shows that the Academic's Personal Characteristic (X_1) variable has an accepted H_1 value, which means that the academic's personal characteristic variable has a positive effect partially on the Intentions of Telkom University Students to Become a Technopreneur (Y). This is evidenced by the fulfillment of the statistical test requirement, namely to reject H_0 and accept H_1 if $t_{\text{count}} \geq t_{\text{table}}$, which can be determined through t_{table} test using SPSS program. It is determined that the t_{count} value is 19,445, so Academic's Personal Characteristic (X_1) meets the H_1 test required to be accepted ($19,445 > 1,649$). The accepted H_1 value in this research means that the indicators of entrepreneurial self-efficacy, motivational factors, and personal networks influence students' intention to become a technopreneur. In the thesis research that was done by Sunu regarding the intention of students to become a technopreneur studied using path analysis method with the object of research to be Bandung Technological Institution students majoring in informatics engineering, it was shown that partially the influence values for entrepreneurial self-efficacy and personal networks were significant, but the influence value for motivational factors was insignificant to students' intention to become a technopreneur (Triono, 2014). It can be concluded that there are similarities in the research variables, but in this research, the three variables (entrepreneurial self-efficacy, motivational factors, and personal networks) are grouped into a single category (academic's personal characteristic) to facilitate and simplify the research (Prodan, 2007). Partially, the Academic's Personal Characteristic (X_1) variable has an effect of 47.5% on students' intention to become a technopreneur, while the Academic's

Perceived Support (X2) is categorized from perceived role models and perceived support from academic institutions (Prodan, 2007). In the dissertation research by Prodan using the structural equation model method with the object of research to be students at 3 universities including the University of Ljubljana in Slovenia, Eindhoven University of Technology in the Netherlands, and the University of Cambridge in the UK, it was shown that the perceived role model variable had a significant effect on students' intention to become a technopreneur while perceived support from academics institution variables did not have a positive influence on students' intention to become a technopreneur (Prodan, 2007). In this study, the variable academic perceived support has H1 value rejected according to the statistical test requirements, namely H1 is rejected if $t\text{-count} < t\text{ table}$. From the measurement results, it was found the results $(-5.503 < 1,649)$ interpreted that in this study the variable academic 'perceived support (X2) did not significantly positive influence students' intention to become technopreneurs. In this study, the academic's perceived support variable has an influence of 2.4% on students' intention to become a technopreneur.

CONCLUSION

It can be concluded that the Academic's Personal Characteristic of Telkom University students are within the "Good" category. Academic's perceived support of Telkom University students is within the "Enough" category. The intention to become a technopreneur for Telkom University students is within the "Enough" category. Based on the explanation in the previous chapter, it can be concluded that the academic's personal characteristic has a positive and significant influence partially on the intention to become a technopreneur for Telkom University students with the value of 47.5% while academic perceived support does not have a positive and significant influence on the intention to become a technopreneur for Telkom University students with a value of 2.4%. Based on the explanation in the previous chapter, it can be concluded that personal academic characteristics and academic perceived support have a significant influence si-

multaneously on the intention of Telkom University students to become technopreneurs with a high value of 49.9% while the remaining 50.1% is influenced by other factors which are not observed in this study.

REFERENCES

- Ikhtiangung, Ganjang Ndaru and Soedihono. 2018. *Pengaruh Dukungan Akademik Dan Faktor Sikap Terhadap Keinginan Berwirausaha Bidang Teknologi (Technopreneur) Pada Mahasiswa*. Jurnal Ilmiah Manajemen dan Bisnis. 19(1), 1 – 20. Retrieved From Jurnal Umsu
- Indrawati. 2015. *Metode Penelitian Manajemen dan Bisnis Kovergensi Teknologi Komunikasi dan Informasi*. Bandung: PT Refika Aditama.
- Karimi, S., et al. 2015. *Testing the relationship between personality characteristics, contextual factors and entrepreneurial intentions in a developing country*. International Journal of Psychology. 52(3), 2. Retrieved From ResearchGate
- Koe, W., Alias, N. E., Ismail, S., and Mahphoth, M. H. 2018. *A Suggested Model for Studying Technopreneurial Intention in Malaysia*, International Conference on Economics. Business and Economic Education 2018. Vol. 2018. Diambil dari: KnowledgeE.
- Liputan 6. 2018. *Jumlah UKM Diproyeksikan Tumbuh 5 Persen pada 2019*. [Online]. Tersedia: <https://www.liputan6.com/bisnis/read/3478598/jumlah-ukm-diproyeksikan-tumbuh-5-persen-pada-2019> [17 November 2018]
- Mopangga, Herwin. 2015. *Studi Kasus Pengembangan Wirausaha Berbasis Teknologi (Technopreneurship) di Provinsi Gorontalo*. Trikonomika, 14(1), 14-16. Retrieved from Jurnal Unpas.
- Prodan, I. 2007. *Technological Entrepreneurship: Technology Transfer from Academia to New Firms*. Disertasi Doktor pada Ljubljana University Slovenia. [Online]. Tersedia: <http://alexandria.tue.nl/openaccess/Metis213321.pdf> [20 November 2018]
- Putra, Erik Purnama. 2015. *Rektor: Pengusaha di Indonesia 1,65 Persen, Singapura 7 Persen Penduduk*. [Online]. Tersedia: <https://www.republika.co.id/berita/pendidikan/duniakampus/15/08/27/ntpdoq334-rektor-pengusaha-di-indonesia-165-persen-singapura-7-persen-penduduk> [16 November 2018]
- Rahman, M. Razi. 2018. *Revolusi Industri 4.0 dan kualitas SDM*. [Online]. Tersedia: <https://www.antaranews>.

- com/berita/770127/revolusi-industri-40-dan-kualitas-sdm-video [25 November 2018]
- Sujarweni, V. Wiratna. 2015. *Metodologi Penelitian Bisnis & Ekonomi (1st ed.)*. Yogyakarta: PT Pustaka Baru.
- Sunaga Yusuke, et al. 2017. *Relation between Combinations of Personal Characteristic Types and Educational Effectiveness for a Controlled Project-Based Learning Course*. Emerging Topic In Computing, 5(1),69-71. Retrieved From IEEE
- Tiffany, Nur Aida. 2017. *Pentingnya Technopreneur untuk Majunya Industri di Indonesia*. [Online]. Tersedia: <https://www.liputan6.com/citizen6/read/3180415/pentingnya-technopreneur-untuk-majunya-industri-di-indonesia> [16 November 2018]
- Trihudiyatmanto, M. 2017. *Pengaruh Efikasi Diri (Self Efficacy) dan Intensi Berwirausaha Terhadap Spirit Technopreneurship (Studi Kasus di Sentra Pengrajin Teralis di Desa Jlamprang Kecamatan Wonosobo)*. Jurnal Penelitian dan Pengabdian Kepada Masyarakat, 4(2), 156-158. Retrieved from Unsiq
- Triono, Sunu Puguh. 2014. *Pengaruh Entrepreneurial Self Efficacy, Motivational Factors dan Personal Networks Terhadap Niat Mahasiswa Untuk Menjadi Technopreneur (Studi Pada Jurusan Teknik Informatika Institut Teknologi Bandung)*. (Thesis). Retrieved From Open Library Universitas Telkom
- Yuliani, Ayu. 2017. *Kemenkop UKM: 3,79 Juta UMKM Sudah Go Online*. [Online]. Tersedia: https://www.kominfo.go.id/content/detail/11526/kemenkop-ukm-379-juta-umkm-sudah-go-online/0/sorotan_media [16 November 2018].