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# Strategies For Exploring Business Opportunities: Technopreneur In Vocational High School Students

Achmad Imam Agung<sup>1</sup>, Chamdan Mashuri<sup>2</sup>

<sup>1</sup> *Electrical Engineering Study Program, Faculty of Engineering, Universitas Negeri Surabaya, Indonesia*

<sup>2</sup> *Information Systems Study Program, Faculty of Information Technology, Universitas Hasyim Asy'ari, Indonesia*

Email: [achmadimam@unesa.ac.id](mailto:achmadimam@unesa.ac.id)<sup>1</sup>, [chamdanmashuri@unhasy.ac.id](mailto:chamdanmashuri@unhasy.ac.id)<sup>2</sup>

\*corresponding author: [achmadimam@unesa.ac.id](mailto:achmadimam@unesa.ac.id)<sup>1</sup>

## ABSTRACT

Education Technopreneur requires an understanding of how to intensify technopreneurs while in school. Intentions technopreneurs in students, and researchers, have received considerable attention. Intention Technopreneurs can be interpreted as a process of seeking information that can be used to achieve the goal of forming a business. Their attitudes, behavior, and knowledge about technopreneurs will shape their tendency to open new businesses in the future. This study aims to prove the influence of adversity quotient and contextual factors in shaping the intention of technology-based entrepreneurship (technopreneurship) of SMK students either partially or simultaneously. This research is survey research. Data collection techniques in this study were carried out using a questionnaire. The number of samples taken in this study is as many as 220 from SMKN 1 Surabaya and SMK St. Louis Surabaya. Variations are related either partially or simultaneously. Significantly determines the intensity of technopreneurs. Conclusions obtained in the study include the need to increase top management support, in this case, the school or the government to develop an adversity quotient so that students' interest in entrepreneurship can increase and become bigger, which ultimately leads to the intention of technology-based entrepreneurship (technopreneurship) to produce optimal results.

**Keywords:** Technopreneur, Technopreneur Intention, Business Opportunity.

## Introduction

In order to prepare graduates of vocational education, who are expected to be able to compete in the world of work and live independently, and even continue to higher education, there is a fundamental condition of vocational graduates today. The actual condition is the employment problem in Indonesia, which is marked by the high level of open unemployment and the low absorption of informal labor employment. In addition, low productivity and income are the primary sources that cause most of them below the poverty line. For this reason, efforts to create new jobs are a

top priority for the government (Yusmedi Nurfaizah, 2014).

According to data from the Central Bureau of Statistics (BPS), it was recorded that the number of open unemployment in 2021 amounted to 49.01 million people. This decreased when compared to 2020, which was 42.13 million people. The data on the open unemployment rate (TPT) is dominated by Vocational High School (SMK) graduates of 11.13 percent in 2021.

The strategic step is needed to build education in Indonesia, especially when linked to Vocational Secondary Education (SMK). There is a Government Regulation (PP) number 19 of 2005

describes the National Education Standards, namely the purpose of implementing SMK is that vocational secondary education prioritizes the preparation of students to enter the workforce and develop professional attitudes.

The Government Regulation (PP) No. 19 of 2005 also explains that the pattern of education in SMK has different characteristics from other education units. These differences can be studied from the purpose of education, the substance of the lesson, the demands of education, and graduates. The characteristics of vocational education are increasing intelligence, knowledge, personality, noble character, and students' skills to live independently and take further education through their vocational program (Jaya & Hendra, 2011). Vocational education is an educational institution that equips students with knowledge and skills as life skills. It aims to prepare graduates as workers who can compete in work and have life skills (Aliyani et al., 2014:54). When viewed from the way of preparing skills, SMK is designed as a workforce that can compete in the world of work and life skills.

In 2015 at the ASEAN level, which includes Indonesia entered the era of the ASEAN Economic Community (AEC) and will be followed by the Asia Pacific Economic Cooperation (APEC), which started in 2020 for developing countries (Indonesia), the era of globalization that cannot be avoided by all nations in the world, including the Indonesian nation. Departing from the 2 (two) significant problems above, namely: (1) high unemployment rate and (2) readiness to enter the era of globalization, there is no most effective way except to increase the nation's competitiveness.

Edward Deming (2011: 187), in his book entitled "Out of the Crisis," states that the prosperity of a nation is determined more by the nation's human resources, management, and government than by the abundance of natural resources. This increase in human resources for the Indonesian nation has become a precious lesson. To answer and solve

existing problems, one must turn the problem into a challenge/opportunity to change for the better and even be a superior future. By empowering the young generation, the abundance of which is also the use of technological advances. For this reason, the Indonesian nation needs to prepare a generation of innovators to process the diversity of abundant natural resources into valuable goods/services and create millions of new jobs. For this reason, learning in vocational schools must develop XXI Century skills to produce graduates who are "innovative, inventive, self-motivated and self-directed, creative problem solvers to confront increasingly complex global problems" (Trilling & Fadel, 2010).

In the context (of life and career skills), the science of entrepreneurship can be intensified so that it can be studied and taught in a more structured and well-planned manner so that every individual has the opportunity to appear as an entrepreneur in the field of engineering (technopreneur). Even becoming a successful entrepreneur is not enough to have talent alone. However, one must also know all aspects of the business that he will be engaged in.

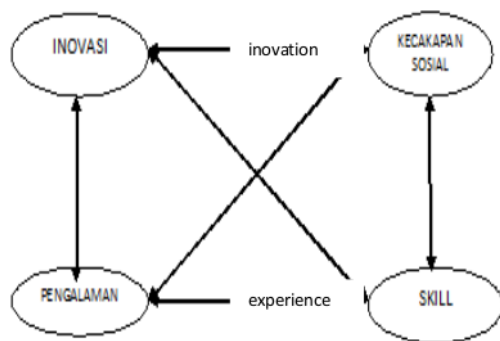
According to Burhan (2012), a technopreneur is a necessary ingredient to stimulate economic growth and job opportunities in all societies. In developing countries, successful small businesses are a crucial engine of job creation, income growth, and poverty reduction. Therefore, government support for technopreneurs is an essential strategy for economic development.

Meanwhile, the word "Technopreneur," according to Beta Sutabri (2010), states that technopreneur is the process and formation of a new business that involves technology as its basis, with the hope that the creation of the right strategy and innovation in the future can place technology as a factor for the development of the national economy.

From the meaning of technopreneur, which in this case is an entrepreneur, which involves technology, especially in Vocational Schools, a

rare form of entrepreneurial intention (Technopreneur) can be the best predictor of one's entrepreneurial behavior (Krueger & Carsrud in Indarti and Rostiani, 2008: 4), with the intention Entrepreneurs to start a business will have better readiness and progress in the business being run than someone without the intention to start a business. Intentions can be used as a primary, reasonable approach to understanding which will become entrepreneurs (Choo & Wong 2006: 49). So with efforts to encourage entrepreneurial intentions, students have begun to be carried out by educational institutions, including vocational schools.

From the description above, this research is interested in bringing up this topic to support the goals of establishing a vocational high school, increasing the growth of technopreneurs, and becoming a nation's need to answer the challenges of the global market strengthening the nation's economy. The variable in this study is the adversity quotient with indicators: of innovation, experience, and contextual factors with indicators: of social skills and skills.



**Figure 1. Relationship between Indicators**

**1** The purpose of this study is to determine (1) the effect of adversity quotient intentions technopreneur of SMK students; (2) the influence of contextual factors on the technopreneur intentions of SMK students; (3) the influence of adversity quotient and

contextual factors on intentions the technology-based entrepreneurial.

## METHODOLOGY

This research is a survey with a quantitative approach. The regression analysis results show that the variables related to personality, instruments, and demographics together significantly determine the intentions of technopreneurs. The population of this research is SMK in Surabaya, the samples are SMKN Surabaya and SMK St Louis Surabaya. The research data was obtained by submitting questionnaires and interviews with students taking entrepreneurship.

The population in this study was partially and proportionally random students who took entrepreneurship at SMKN 1 Surabaya and SMK St Louis Surabaya in 2019, totaling 2200 students.

Sampling using proportional random sampling technique with the provision that because the population is more than 100, the sample size taken 10-15% or 20-25% (Arikunto, 2010: 174). The sampling technique in this study used a proportional sampling of 10% therefore, the sample was social skills study as many as 220 respondents.

The data collection method in this study used a questionnaire. The statement items submitted in the questionnaire are presented on a Likert scale. Analysis technique in the study uses analysis techniques with multiple linear regression test, t-test, F test, and coefficient of determination test, which is carried out using the SPSS version 17 program.

## RESULTS AND DISCUSSION

The profile of respondents in this study showed that 55.71% of respondents were male, and 44.29% of respondents were women. The age range of the respondents in this study ranged from 16 - 18 years, and the majority of respondents, 80% of respondents were in that range. Based on the

study program followed by the respondents, it is known that the majority of respondents, or 80% of respondents, are students. The data description includes the mean, minimum score, maximum score, and standard deviation. In addition, a frequency distribution table for each variable is also presented. The grouping of observed symptoms from each variable was divided into three categories: sound, quite good, and not suitable.

Based on the description of respondents' assessments related to the variables in this study,

it is known that the majority of respondents obtained the average value of 2 (two) indicators of 68.18% of the adversity quotient is quite good. While the respondents' assessment of contextual factors, most respondents with an average rating of 2 (two) indicators of 66.67% have a pretty good assessment. With an average rating of 79.32%, most respondents have a pretty good assessment of the technology-based entrepreneurial intention. Based on the results of multiple linear regression in this study, it is known in Table 1 below:

**Table 1 Results of Multiple Linear Regression “Coefficients”<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-13.921	1.436		<b>-9.692</b>	000
Adversity Quotient	1.148	.061	.721	<b>18.918</b>	000
Contextual Factor	.458	.063	.277	<b>7.258</b>	000

a. Dependent Variable: Intention technopreneurship

<sup>19</sup> Based on table 2 above, it is known that the value of  $\alpha$  (constant) = - 13.921 or a negative value. If there is no variable adversity quotient and contextual factors, the technopreneurship of vocational students will decrease. Based on the test results in the table above, <sup>27</sup> it can also be seen that the regression coefficient value in this study is positive, which means that the independent <sup>30</sup> variable consisting of adversity quotient contextual factors has a positive influence on technopreneurship students based on the results

of part <sup>33</sup> hypothesis testing with t-test in this study, it can be seen that the significance value (p-value) for each variable is 0.000 or less than 0.05 (see Table 1). This shows that the independent variables in this study which consist of adversity quotient and contextual factors, have a significant effect on the technopreneurship of vocational students partially. Based on the results of simultaneous hypothesis testing with the F test in this study, the following results were obtained.

<sup>9</sup> **Table 3. Results of Multiple Linear Regression “Anova”**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2872.75	2	1436.375	268.994	.000a
Residual	1153.396	216	5.340		
	4026.146				

Total		218		
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a. Predictors: (Constant), Contextual Factors, Adversity Quotient

b. Dependent Variable: Entrepreneurial Intention

Based on the results of the variable analysis test (ANOVA) in this study, it can be seen that the significance value (p-value) for the F test in this study is known to be 0.000 or less than 0.05. This shows that the independent variables in this study which consist of adversity quotient and

contextual factors, simultaneously have a significant effect on the intention of technology-based entrepreneurship (technopreneurship) of SMK students.

Based on the results of the determination coefficient test in this study, can be seen in Table 4. below:

**Table 4 Determination Coefficient Test Results R<sup>2</sup> Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845*	.714	.711	2,311

Based on Table 4, above it can be seen that the contribution of the influence of the independent variables in this study consisting of adversity quotient and environmental factors have an influence on the technology-based entrepreneurial intention of SMK students by 0.711 or (71.1%) and the remaining 28.9% is influenced by other variables outside this study. The results of this study indicate that the selection of the independent variable used to predict the dependent variable in this study is correct.

## CONCLUSIONS AND SUGGESTIONS

Based on the analysis results in this study, it can be concluded that the adversity quotient and contextual factors partially and simultaneously have a positive and significant effect on the intention of technology-based entrepreneurship (technopreneurship) of SMK students. The most dominant variable influencing this study is the adversity quotient. It has the most significant regression coefficient value, 1.148, compared to the regression coefficient value of the contextual factor variable of 0.458. Based on the conclusions

in this study, suggestions that can be recommended related to the discussion of the problems in this study include the need to increase top management support, in this case, the school or government to develop adversity quotient so that students' interest in entrepreneurship can increase and become bigger which ultimately the entrepreneurship intention is based on technology (technopreneurship) produces optimal results. In addition, it is necessary to continuously increase support for contextual factors so that efforts to increase the intention of technology-based entrepreneurship (technopreneurship) of SMK students run efficiently and effectively. This is one of the capitals of the Indonesian nation to play an active role and answer the challenges of globalization by the progress of the Indonesian nation in particular and in the world in general.

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