

## Correlation between Social Support, Vocational Skill and Career Adaptability in Industrial Revolution 4.0 for Vocational Students

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### Abstract

The era of the industrial revolution 4.0 requires vocational students to adapt in a career (Career adaptability) (Y) because of the changing times, especially for the workforce. Therefore, vocational students as prospective workers must have vocational skills (X2) in soft skills and hard skills training. Besides softskill that is needed to increase the level of adaptation is social support (X1). This study aims to determine: (1) Description of X1, X2, Y, (2) Relationship of X1 to Y; 3) Relationship of X2 with Y, (4) Relationship of X1 and X2 with Y. The research method used is quantitative with research design descriptive correlational. The research sample of 95 students determined by referring to the saturation sampling technique. Variables X1, X2 and Y have the level of reliability in sequence are 0.761, 0.766. and 0.764. Sequentially the Effective Contribution Value at X1 and X2 is 6.4% and 13.8%. Consequently the Relative Contribution Value at X1 and X2 was 31.68% and 68.32%. The conclusions of the results obtained from this study are (1) X1, X2, and Y in the medium category; (2) there is a positive and significant relationship between X1 and Y, X2 and Y, and X1 and X2 simultaneously with Y.

**Keywords:** Career Adaptability, Industrial Era 4.0, Social Support, Vocational Skill



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### INTRODUCTION

The era of the industrial revolution 4.0 is the name of the latest automation and data exchange trends in industrial technology introduced in Germany at the Hannover Messe industrial exhibition in the City of Hannover in 2011. Industrial Revolution 4.0 includes cyber-physical systems, Internet of Thing, cloud computation, and computing cognitive.

The industrial revolution 4.0 became the point where all aspects of production in the industry use the internet as a control in the management of its industry. Production processes in the industry in the current era have used an automation system in which all processes, both raw material processing and quality control are operated automatically or semi-automatically. A result of changes in the process of production causes people who work

or in readiness to work need to improve the quality of themselves at work so that they can compete in getting relevant work according to ability.

Technology in the industrial era 4.0 will continue to evolve, so on the other hand must be accompanied by the ability to innovate to support so that companies can continue to develop new ideas and new methods to be able to adapt to technological developments in the industrial era 4.0.

Career adaptability in the era of the industrial revolution 4.0 is needed and applied to millennial generation, so that the response of changes that occur in every country involving global political, academic, civil society interests in industry challenges 4.0 can be managed into opportunities. Industry 4.0 challenges can be identified such as

information technology security issues, reliability, and lack of adequate skills.

The Directorate General of Non-formal and Informal Education at the Ministry of National Education stated that Vocational Institutions, education and training institutions and courses have not been able to provide labor supply according to the needs of the working world. This is due to the lack of competency of students with the needs of the workforce. The company will look for workers who have competencies according to the company's request. At present many SMK graduates are unemployed because of the lack of companies that absorb labor according to the competencies of SMK graduates. This is a problem that causes the number of unemployed graduates from vocational schools is still a lot. Lack of competencies possessed by SMK graduates makes work absorption figures not optimal. The lack of absorption of vocational graduates is a problem and must be addressed by increasing vocational skills that must be highlighted by students.

One of the factors that can influence a person (students) to be ready to work is an external factor, mentioned that support / encouragement from parents, peer condition and the response of the surrounding community (teachers) affect the adjustment of students both mentally and psychologically towards the world of work. The role of teachers in schools begins to provide an understanding of the importance of social support given to students so that vocational graduates are able to produce young people who are ready to work and are productive in working in the labor market (Arifin et al., 2016).

Based on the explanation above, having vocational skills in students will make them more proficient and confident so that effective and efficient strategies are achieved in achieving work targets. Supported with social support (social support) from the family, friends and the community, the students will be more comfortable in working so that the level of work stress is reduced and work performance will increase. However, these two factors will be better if each student is equipped with career adaptability that is

tailored to the needs or target challenges in the era of the industrial revolution 4.0.

Students can control their ability to realize the goals and focus of their work or future. Students are able to solve problems and work tension in a professional and structured way. So with the provision of several factors above it is hoped that students can adjust well in the work environment.

The concept of career adaptability is described as a psychosocial construct that shows an individual's resources to overcome the tasks of career development, work transition, and personal trauma associated with the role of work. Career adaptability is used as a career development process in adulthood (M. L. Savickas, 2013). The construct of career adaptability is used as a substitute for career maturity. Career adaptability can also be defined as a response to readiness and sources of individual coping, which are used to plan, explore, and inform decisions about the future possibilities of their careers (Mark L. Savickas et al., 2009).

Career adaptability has a relationship with the formation of vocational identity, where graduates who are able to adapt can have a variety of additional skills and make it more dynamic in the choice of occupations (M. L. Savickas & Porfeli, 2012). Viewed in a world full of changes in the world of work and the environment, career adaptability is useful for further study for teenagers or high school / vocational high school graduates.

The needs of every human being cannot be separated from the help and support of others around him. Help, support or encouragement can be obtained from the family, friends, spouses, relatives or the surrounding community. One of the factors that influence the individual ready to work is the presence of external factors. Parental guidance or support, peer attention, and the condition of the surrounding community (teachers) greatly affect the psychological condition of students in work readiness. People who feel emotionally supported socially will feel relieved and more confident because they have been cared for, get impressions, and advice that is pleasing to students.

Kumalasari & Ahyani (2012), explains that social support is the existence, willingness,

care of people who can be relied on, valued, and loved. Social support includes two things: First, the number of social support sources available is an individual's perception of the number of people relied upon when the individual needs help (quantity based approach). Second, the level of satisfaction with social support received is related to the individual's perception that his needs will be met (a quality-based approach).

Dewi in Lia, Syamwil, & Widayani (2017), explains that vocational skills are part of the concept of living skills in the education system. So far, vocational skills have been provided to Vocational High Schools through skills activities in the field / workshop. According to Moedzakir (2010), explains that vocational skills can be interpreted as skills related to one's work and profession. But vocational skills are more suitable for students who usually pursue work that relies on psychomotor skills rather than scientific thinking. This shows vocational skills are more suitable to be applied to vocational students, courses, skills, and diploma programs (Rahmawaty, 2017)

Career adaptability is one of the transition facilities from schools to the world of work. This ability is needed by students in order to have readiness to project themselves directly in the world of work. High career adaptability makes a person more projecting in the future, feel fewer career obstacles, more able to realize a career into his behavior (M. L. Savickas, 2013). Based on the description above it is known that one of the aspects needed in preparing a workforce that is able to adapt to the world of work is career adaptability.

## METHODS

The research method is the most core part of the study (Arikunto, 2010). Research method is a method used to obtain data in a scientific way so as to obtain certain objectives and uses. Based on this opinion it can be interpreted that the research method is the most important part in a study because the quality of research results depends on the research method (Sugiyono, 2013).

This research uses quantitative research methods, namely research that uses statistical

calculations to analyze data. In the research design using descriptive correlational research. Descriptive research is research by explaining variables that are in accordance with the problem under study. Correlation research is research that is used to find out the relationship of a variable and to find out how closely the relationship is as well as the meaning of the relationship. This study aims to determine whether there is a relationship between social support and vocational skills with career adaptability of students in the industrial revolution era 4.0. if a relationship is known then how big is the relationship of each variable.

The population in this study were all students of class XII Vocational School which had Electrical Power Engineering Program expertise, namely Malang City 6th Vocational School, Malang City 01 Muhammadiyah Vocational School, and Malang City National Vocational School with a total of 95 students. Data collection techniques using questionnaires in the form of a questionnaire using saturated samples, which means the entire population is used as a research sample Data analysis techniques used are: (1) test the validity of the instrument; (2) instrument reliability test; (3) prerequisite tests include normality test, linearity test, autocorrelation test, multicollinearity test, heterokedasticity test; and (4) Hypothesis Test.

## FINDING AND DISCUSSIONS

The results of research on social support variables are shown in the table below:

Table 1. Frequency Distribution Social Support Variable

No	Category	Percentage (%)
1	Very High	64.21
2	High	31.58
3	Medium	4.21
4	Low	0
5	Very Low	0

Based on Table 1, it is known that the level of social support in class XII competence in electrical power engineering techniques in Malang tends to be very high at 64.21%. The results of research on vocational skill variables are shown in the table below:

Table 2. Frequency Distribution of Vocational Skill Variable

No	Category	Percentage (%)
1	Very High	58.95
2	High	35.79
3	Medium	5.26
4	Low	0
5	Very Low	0

Based on Table 2, it is known that the level of Vocational skills of students of class XII The competence of electric power installation engineering skills tends to be very high at 58.95%. The following is the data distribution of career adaptability of industry era 4.0 students of class XII competency in electrical installation engineering expertise in Malang:

Table 3. Frequency Distribution of career adaptability

No	Category	Percentage (%)
1	Very High	45.26
2	High	47.37
3	Medium	5.26
4	Low	2.11
5	Very Low	0

Based on Table 3, it is known that the level of career adaptability in the era of the industrial revolution 4.0 in class XII students competency in electrical power engineering expertise in Malang tends to be high at 47.37%. In the prerequisite test it is known that the data is normally distributed with the value of  $\Phi_{hit} > P_{tabel}$ . In the linearity test also occurs the linearity of the dependent variable with each independent variable. In multicollinearity and autocorrelation testing, no autocorrelation or multicollinearity was found in the data obtained through research. The following are the results of hypothesis testing in this research:

Table 4. Result of Hypothesis Test

Based on Table 4, it is known that  $P_{count} < P$ . Thus it can be interpreted that  $H_0$  is rejected so it can be concluded that there is a partially significant relationship between social support ( $X_1$ ) career adaptability ( $Y$ ) and a

Partial Corelation	Probibility		Interpretation
	$P_{count}$	$P$	
$X_1$ - $Y$	0.020	0.05	Significant
$X_2$ - $Y$	0.000	0.05	Significant

significant partial relationship occurs between vocational skills ( $X_2$ ) and career adaptability ( $Y$ ). The following are the results of the third hypothesis testing:

Table 5. The Result of Third Hypothesis Test

Sig. F	Coefficient			R	R square
	Const.	$X_1$	$X_2$		
0.000	0.419	0.610	0,331	0.449	0.202

Based on Table 5, it is known that the value of  $\text{Sig.F} < 0.05$  can be interpreted that there is a significant simultaneous relationship between social support and vocational skills to career adaptability in the industrial revolution era 4.0. Each variable has a relative contribution (SR) and effective contribution (SE) to its effect on the  $Y$  variable.

Table 6. SR and SE

Predictors	SE%	SR%
Social Support	6.4%	31.68%
Vocational skill	13.8%	68.32%
Summary	20.2%	100%

Based on Table 6.0 it is known that the effective contribution of Social Support is 6.4% and the effective contribution of Vocational Skill is 13.8%. Whereas the relative contribution of Social Support with Career Adaptability in the era of the industrial revolution 4.0 was 31.6% and the relative contribution of Vocational Skills to Career Adaptability in the era of industrial revolution 4.0 was 68.32%. Both independent variables gave a significant effect on the dependent variable by 20.2% and by 79.8% derived from other factors or aspects not examined in this study.

Based on the results of descriptive analysis and explained, it is explained that most of the vocational students of TITL expertise in Malang had Career Adaptability in the era of the industrial revolution 4.0 with very high categories. Career Adaptability is the critical ability of individuals to direct the decision making process in a career in the world of work.

The concept of career adaptability is described as a psychosocial construct that shows an individual's resources to overcome the tasks of career development, work

transition, and personal trauma related to job roles (M. L. Savickas, 2013). Career Adaptability is the process of developing students' career in adulthood.

Based on the results of the descriptive analysis presented, it was explained that the majority of vocational students competency in Electrical Installation Engineering expertise had a very high Social Support category. Social Support is the ability a person has to take advantage of the help or positive support provided from the surrounding environment such as family, friends, and the community to individuals in their lives.

Apollo & Cahyadi (2012), explain that social support consists of some verbal information and advice, real help, or action given by someone in the social sphere which aims to influence the welfare of the individual concerned. Vocational High School students of TITL expertise in Malang have high social support. That is, most of the SMK competency students in Malang City's TITL expertise have support from both emotional and instrumental aspects in the form of supporting information on careers. Because the social support variable is useful for creating productive and ready-to-work young people who become social challenges for students themselves in the era of the industrial revolution 4.0.

Based on the results of the descriptive analysis presented, it was explained that the majority of vocational students in Malang City's expertise competency had Vocational Skills with a very high category. Vocational Skill is a skill that must be possessed by a student in order to develop skills and abilities to master a job that is needed by the community through the training process first. Of course Vocational Skill is able to lead to increased innovation in education and industry in the current 4.0 industrial revolution era.

Vocational skill is defined as the capacity possessed by students to carry out a series of tasks that develop from the results of experience and training (Suhartini, 2015). Vocational skills are needed to solve learning challenges in the 4.0 revolution era so that education in Indonesia is able to create young people as professional experts in line with the needs of human resources in the industrial revolution era 4.0.

Career Adaptability is the critical ability of individuals to direct the decision making process in a career in the world of work in order to face the challenges of the industry in the current era. The era of the industrial revolution 4.0 is a century in which there is a lot of competition in the business sector, especially in the industry, to be able to compete at this time, competent human resources are needed in utilizing all kinds of technologies that exist today.

Conditions of industry 4.0 challenges, students are required to prepare career plans that are required according to qualifications from industry 4.0. This is very influential on the way students view the transition from the world of education and the world of work. The difference in the burden of tasks and ways of communicating and the variety of work problems will be the responsibility of students who must be faced.

Social support aims to facilitate students in making decisions about themselves by utilizing environmental assistance or support in solving problems. Social Support owned by students makes it easy to resolve all changes that occur in Career Adaptability in the era of the industrial revolution 4.0. This means that the higher the social support of students in the work environment, the higher the quality of work produced. Social support can reduce the burden or problems faced by students so that it can be said that social support is a model of support that results from personal interactions involving one or more aspects of emotions, assessments, information, and instruments so as to reduce the burden on students.

## CONCLUSION

Based on the results of data analysis and discussion that has been explained can be concluded as follows: (1) Career Adaptability in the era of the industrial revolution 4.0 of the TITL Vocational High School students in Malang City had a very high category; (2) Social Support obtained by students of the Vocational High School Competency TITL Malang has a very high category; (3) Vocational Skills obtained by vocational students of TITL Malang City Competency Competency have a very high category; (4) There is a partially positive and significant

relationship between Social Support and Career Adaptability in the era of the industrial revolution 4.0 on the TITL Vocational High School students of Malang; (5) There is a partially positive and significant relationship between Vocational Skill and Career Adaptability in the era of the industrial revolution 4.0 on the TITL Vocational High School Competency students in Malang; (6) There is a positive and simultaneous relationship between Social Support and Vocational Skill with Career Adaptability in the era of the industrial revolution 4.0 on the TITL Vocational High School students of Malang; (7) Based on research, relative contributions (SR%) and effective contributions (SE%) can be calculated. The relative contribution of the Social Support variable to Career Adaptability in the industrial revolution era was 31.68%, while the Vocational Skill variable towards Career Adaptability in the industrial revolution era 4.0 was 68.32%. The effective contribution of the Social Support and Vocational Skill variables with Career Adaptability in the industrial revolution era 4.0 was 20.2% and 79.8% came from factors or other aspects not examined in this study.

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