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Improving Student Competence Based on Emotional Intelligence and Technological Capital

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ABSTRACT
The purpose of writing this article is to determine and analyze (1) Emotional Intelligence, Technological Capital, and Student Competencies; (2) Simultaneous effect of Emotional Intelligence and Technological Capital on Student Competence; (3) Partial Effect of Emotional Intelligence and Technological Capital on Student Competence. The research object includes Emotional Intelligence, Technological Capital, and Student Competence by taking the research subject of Management Study Program Students in Tasikmalaya City. The method used is a survey with a quantitative approach, using quantitative data sourced from questionnaires and library research. So that the hypothesis made can be accepted by proving the results of this study

Keywords: *Student Competencies, Emotional Intelligence, Technological Capital.*

1. INTRODUCTION

Economic changes that occur as a result of changes in the industrial revolution that occur in various countries today, industrial revolution must be made for the economic progress of a country. The demands of the industrial revolution change are very demanding competencies that can compete and can apply the technology that has been made. Applying this technology requires people who are more skilled, more adaptable, and have better knowledge.

Competence becomes very important when humans are faced with very different situations, where the use of technology for various activities causes many workers to lose their jobs. Humans are required to be able to use technology optimally but must also use it carefully. This is deemed necessary because technology cannot be

Table 1. Open Unemployment by Highest Education Graduated 2015-2021 [1]

No	Highest Education	2015	2016	2017	2018	2019	2020	2021
		Feb	Feb	Feb	Feb	Feb	Feb	Feb
1	No/never been to school	124.303	94.293	92.331	43.740	36.422	35.761	20.461
2	No / not finished elementary school	603.194	557.418	1.292.234	975.661	965.641	1.006.744	1.219.494
3	primary school	1.320.392	1.218.954	1.292.234	975.661	965.641	1.006.744	1.219.494
4	junior high school	1.650.387	1.313.815	1.281.240	1.265.421	1.235.199	1.251.352	1.515.089
5	General high school/high school	1.762.411	1.546.699	1.552.894	1.672.601	1.690.527	1.748.834	2.305.093
6	Vocational High School/Vocational High School	1.174.366	1.348.327	1.383.022	1.445.340	1.397.281	1.443.522	2.089.137
7	Academy/Diploma	254.312	249.362	249.705	304.744	274.377	267.583	254.457
8	University	565.402	695.304	606.939	803.624	855.854	824.912	999.543
	Total	7.454.767	7.024.172	7.005.262	6.963.457	6.898.796	6.925.486	8.746.008

controlled. Technology offers various conveniences to its users. In controlling this technology, it is necessary to have the emotional pattern of the technology users. Emotional intelligence is vital for humans to use technology that cannot be controlled. Show by Table 1.

From the data in Table 1. it can be seen in this workforce from 2015 to 2021 it can be seen that unemployment from university graduates is increasing from year to year in 2015, there are 565,402 people until 2021 there are 999,543 unemployed people, this spurs an increase in competence in graduates so that it must be even better to be absorbed job market.

The revolution industrial show by Figure 1 and Figure 2 as follow:

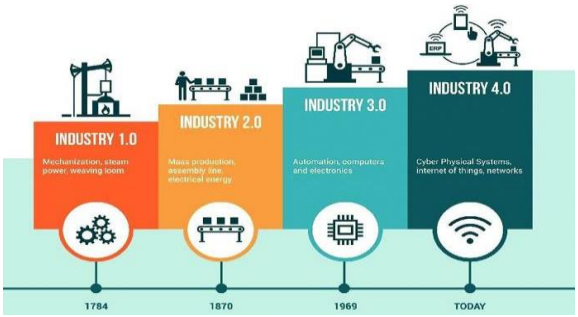

Figure 1. Industrial revolution

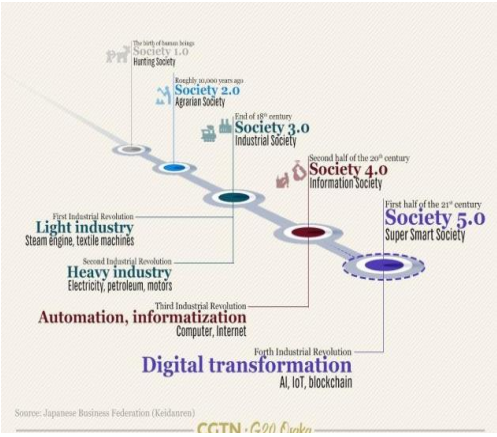

Figure 2. Industrial Revolution

Industrial Revolution 1.0 took place in 1750–1850, marked by human labor being replaced by machines.

The Industrial Revolution 2.0, known as the Technological Revolution, was a phase of rapid industrialization in the late 19th and early 20th centuries. The Industrial Revolution was marked by the emergence of electric power plants and internal combustion engines (combustion chambers). This discovery sparked the emergence of telephones, cars, airplanes, etc., which changed the face of the world significantly.

Industrial Revolution 3.0 took place at the end of the 20th century, Marked by the emergence of the internet and digital technology. The emergence of digital technology and the internet at the end of the 20th century marked the start of the Industrial Revolution 3.0 or known as the Digital Revolution. The process of the industrial revolution is studied based on the perspective of the British sociologist David Harvey as a process of compressing space and time so that space and time are increasingly compressed and no longer distant. Industrial Revolution 2.0, with the presence of cars, brought time and distance closer. Industrial Revolution 3.0 brings the two together. Therefore, the digital era carries a contemporary side.

The Industrial Revolution 4.0 Takes place at the beginning of the 21st century, Marked by the Internet of Things. In the Industrial Revolution 4.0, humans have found a new pattern when disruptive technology comes so quickly and threatens the existence of incumbent companies (old player companies). History has recorded that the Industrial Revolution has claimed many victims with the death of giant companies. Moreover, in this industrial era 4.0 generation, the company's size is not a guarantee, but the company's agility is the key to success in winning quickly. This is shown by Uber threatening big players in the transportation industry or Airbnb threatening significant players in the tourism services industry.

Industrial Revolution 5.0 is better known as Society 5.0. It was Japan that first introduced Society 5.0. The Japanese government realizes that various technological advances have taken over in such a way the role of humans in building civilization. If in psychology, compensation is a behavioral strategy to build satisfaction in one area as a counterweight to dissatisfaction with other areas of life. This is a feeling that the industrial era 4.0, which focuses too much on various technological developments, needs to be balanced by giving humans a more significant role. The Industrial Revolution 5.0 is not a further stage of the Industrial Revolution 4.0. A further stage in terms of linear development of the previous revolution. Industrial Revolution 5.

1.1. Emotional Intelligence

Emotional intelligence is the ability to recognize our feelings and those of others and manage emotions well in ourselves and relationships with others. [2]

The indicators of emotional intelligence are (a) personal skills consisting of self-awareness, self-regulation, motivation; and (b) social skills consisting of empathy and social skills [2]

1.2. Technological Capital

Technological capital is a general term that describes any technology that helps generate, store, communicate and convey information. [3] technology is something that

is used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely information that is relevant, accurate, and timely, which is used for personal, business, and is strategic information for decision making [4].

two dimensions of technology, namely utilization, and effectiveness. Utilization of technology is a benefit that technology users expect in carrying out their duties; technology makes work more accessible, including the ease of exchanging information, easy access to cooperation, ease of carrying out business operations. Investment in appropriate technology can overcome production difficulties and save production time; technology investment can use production machines and other production supporting equipment. Meanwhile, effectiveness includes the effectiveness of product marketing [5].

1.3. Competence

Judging from the discipline of organizational behavior, competence along with commitment is included in the group of individual characteristics of

organizational members. Organizational behavior experts, the concept of competence is understood as a combination of abilities and skills. That abilities and skills receive considerable attention in today's management circles. The use of term competence is a term used to describe this. Abilities show stable characteristics related to a person's maximum physical and mental abilities. Skills, on the other hand, are special capacities for manipulating objects [6].

In contrast to organizational behavior experts knowledge management experts, according to [7-10] the concept of competence together with the concept of commitment has been interpreted as human capital, which in this case is employees, collectively. with consumer capital and structure capital to form the organization's intellectual capital.[11] In this regard,it is stated that competence and commitment are seen as a factor forming the organization's intellectual capital. Ulrich stated, "Intellectual Capital = Competence x Commitment" [12].

1.3.1. Competency Characteristics

Individual competence is the character of attitudes and behavior or individual abilities that are relatively stable when faced with a situation at work formed from the synergy between character, self-concept, internal motivation, and contextual knowledge capacity. There are five main characteristics of competencies that will ultimately affect the performance of individual employees, namely: First, motives, which are something that a person thinks or wants consistently, and there is an urge to make it happen in the form of actions. Second, traits, namely mental characteristics and consistency of a person's response to stimuli, pressures, situations, or information. Third, self-concept is a noble value system upheld by someone, which reflects the self-image or self-attitude towards the aspired future or to a phenomenon that occurs in the environment. Fourth, knowledge, namely information that has a meaning that a person has in a particular field of study. Fifth, skill, namely the ability to do physical or mental work [13].

1.3.2. Competency Type

The dimensions and components of individual competence are divided into three, namely: (a) intellectual competence, (b) emotional competence, and

(c) social competence. Spencer and Spencer have looked at the components of competence from aspects of the human dimension and interpersonal relationships but have not yet produced a component of spiritual competence [13].

Humans have three dimensions, namely First, the body. Second, mind, and Third, soul. From these three. basic dimensions, they grouped competencies into three, namely (a) intellectual competence, (b) emotional competence, and (c) spiritual competence [14].

2. METHODS

The method used is a survey with a quantitative approach show by Figure 3 as follow:

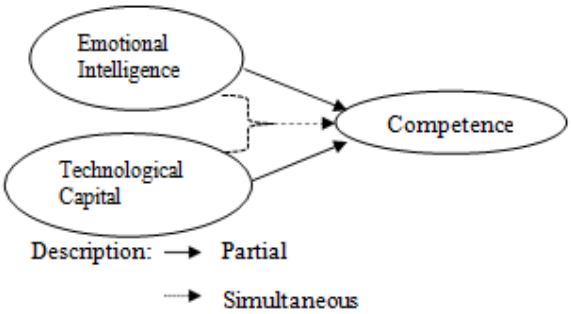

Figure 3. Thinking Framework

The population of this study was 116students of the Management Study Program who took the focus of Human Resources. The sampling technique uses saturated samples by taking all population members as samples from this study.

3. RESULTS AND DISCUSSION

Validity test, From the results of the validity test regarding Emotional Intelligence (X_1), Technological Capital (X_2), and Competence (Y), overall the numbers obtained from the first statement to the last statement from the test results through SPSS version 25 were

obtained the results of r count > r table. So that all variables are valid.

Reliability Test, From the results of the reliability test numbers obtained from the calculation results of SPSS version 25 show Cronbach's Alpha Emotional Intelligence (X_1) 0.898 > 0.60, Cronbach's Alpha Technological Capital (X_2) 0.782 > 0.60, and Cronbach's Alpha Competence (Y) 0.849 > 0.60. So that the reliability test is met. Table 2. Show model summary b and Table 3 show anova a and Table 4 show coefficient as follow:

Table 2. Model Summary b

Model	R	R square	Adjusted R Square	Std. Error of the Estimate	Durbin Watson
1	.764a	.557	.549	3.046	1.121

a. Predictors: (Constant), Technological Capital, Emotional Intelligence.

b.Dependent Variable: Competence

Table 3. Anova a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1317, 817	2	658, 908	71. 018	. 000b
	Residual	1048, 425	113	9,278		
	Total	2366, 241	115			

a. Dependent Variable: Competence

b. Predictors: (Constant), Technological Capital, Emotional Intelligence

Table 4. Coefficients

Unstandardized Coefficients			Standardized Coefficients		t	sig	Correlations			Collinearity Statistics	
Model		(b)	Std. Error	Beta			Zero order	Partial	Part	Tolerance	VIF
1	(constant)	7.025	2,631		2,670	.009					
	Emotional Intelligence	.508	.059	.659	8,674	.000	.738	.632	.543	.679	1.473
	Technological Capital	.289	.164	.138	1,820	.071	.512	.169	.114	.679	1.473

Normality test, that the points that spread around the diagonal line and the spread of data points in the direction of the diagonal line, and Sig. 0.067 > 0.05. This indicates that the regression assumption model meets the assumption of normality and the regression model is feasible to be used to analyze the effect of independent variables on the dependent variable.

Multicollinearity Test, in the VIF column of Emotional Intelligence (1,473 < 10) and Technological Capital (1,473 < 10). So it can be concluded that the variables of Emotional Intelligence and Technological Capital do not occur multicollinearity so that the multicollinearity test is met. Scatterplot show by figure 4 as follow:

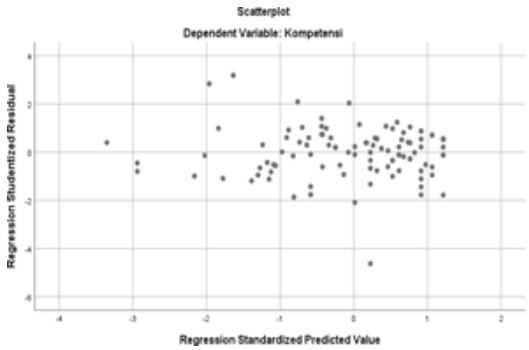

Figure 4. Scatterplot

In the Scatterplot test, the Heteroscedasticity Test shows that there is no clear pattern and the points spread above and below the number 0 and the Y-axis. This indicates that the data in this study does not occur heteroscedasticity.

Autocorrelation Test shows the value of DW 1.121 > -2 and DW 1.121 < +2., which

means that there is no autocorrelation. This regression model can be used for research and to test hypotheses.

Regression formulas that can be created. Y = 7.025 +

0.508 X1 + 0.298 X2 + e, this means, the constant is 7.025. This means that if there is no change in the variables of emotional intelligence, Technological Capital, and other variables that affect competence, then competence will be 7.025. The regression coefficient value of emotional intelligence contributed 0.508 to increase competence, and Technological Capital contributed 0.298 to increase competence, assuming each of the other factors remained.

The magnitude of the effect simultaneously is 55.7% (0.557 x 100%) with sig level. 0.00 < 0.05 which means a significant effect. The magnitude of the partial effect of Emotional Intelligence is 39.94% (0.6322 x 100%) with sig. 0.00 < 0.05 which means a significant effect. The magnitude of the partial effect of Technological Capital

is 2.85% (0.1692 x 100%) with sig 0.071 > 0.05, which means it has an effect but is not significant.

4. CONCLUSIONS

The conclusions in this article are; first, Emotional Intelligence and Technological Capital simultaneously have a significant effect on increasing student competence. Second, Emotional Intelligence partially has a significant effect on increasing student competence. Third, Technological Capital partially but not significantly affects the improvement of student competence

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