Nontraditional Career in Understanding Workers with New Technology

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Abstract
Technology has changed the way people manage both their work and other areas of life.The study analyzing the pressure of new technology on the careers of young students from the perspective of career theory. To achieve the objectives of this study, the authors consider the perspective that suggest dividing career theory between traditional and non-traditional. The study involved 111 respondents. The result showed that the variable Self Identity, Perception Competence and Interpersonal Relations together influence the Pressure of new technology in a career.
Keywords: Workers, Self Identity, Perception Competence , Interpersonal Relations

Abstrak
Teknologi telah mengubah cara orang mengelola pekerjaan mereka dan bidang kehidupan lainnya. Studi ini menganalisis tekanan teknologi baru pada karier siswa muda dari perspektif teori karir. Untuk mencapai tujuan penelitian ini, penulis mempertimbangkan perspektif yang menyarankan membagi teori karir antara tradisional dan non-tradisional. Penelitian ini melibatkan 111 responden. Hasil penelitian menunjukkan bahwa variabel Identitas Diri, Kompetensi Persepsi dan Hubungan Interpersonal secara bersama-sama mempengaruhi Tekanan teknologi baru dalam karier.
Kata Kunci: Pekerja, Identitas Diri, Kompetensi Persepsi, Hubungan Interpersonal.

1. Introduction

Technological advances have led to new views about the future of careers. Technology has changed the way people manage both their work and other areas of life (Haeger and Lingham, 2014). The nature of work has changed in the past four decades and will continue to change in the 21st century. It is difficult to know whether technology is changing the nature of work, by creating jobs and organizations that are more flexible, or if, rather, organizations change and change the way people work Barley et al. (2017).

Based on these observations, the authors see the importance of analyzing the pressure of new technology on the careers of young students from the perspective of career theory.

The purpose of this study is to examine 111 workers. To achieve the objectives of this study, the authors consider the perspective of Arthur et al. (1999), who suggest dividing career theory between traditional and non-traditional. According to this author, while traditional theories focus on the relationship between career and personal fulfillment by considering careers as "a series of work done by someone throughout their lives", nontraditional theories emphasize "organizing one's career self," which now needs to adapt to the environment. But the limitations of the study, the authors only use nontraditional theory which will be discussed later in the next part of the article.

2. Theoretical Framework and Hypothesis Development

Nontraditional Career Theories

Beginning in the 1900s, scarcity of resources and changes in community and organizational culture explain that people do not have or do not want to have long-term expectations for their work (Veloso, 2009, 2012). These findings focus on the study of the meaning and purpose of work identity and learning (Hall, 1996). In the 2000s, people began to work more independently. In this context, the development of non-traditional theories, focuses on the New Economy and provides the conceptual support that is currently needed for career studies (Arthur et al, 1999). Intelligent careers show where work comes from where knowledge guides the organization, which needs to develop skills related to Quinn (1992) culture, knowledge, and networks. There are competencies proposed by the authors in this study Veloso (2009, 2012):

1. Knowing Why: reflects individual identity and motivation, personal meaning, and identification with one's work.
2. Knowing How: reflects individual abilities and specialties relevant to the job.
3. Knowing Whom: reflects the interpersonal relationships and networks that are important for the job.

Technology and Career

The current work environment is faced with

changes that increasingly make career planning difficult for individuals and businesses. An increasingly global economy, rapid technological advances and changes in organizational structure have resulted in changes in employment relations, which have become more flexible, resulting in less predictable career maps (Guan et al., 2017). The main question raised in this study is the ability of professionals to understand the process of continuous automation in their standard tasks where technology is a mental factor that is taken into account in career planning (Callanan et al., 2017). Based on the theoretical framework, the authors formulated the hypothesis as follows:

H1: There is a positive and significant relationship between employee self-identity and the pressure of new technology in their careers.

H2: There is a positive and significant relationship between perceptions of competence in workers against the pressure of new technology in their careers.

H3: There is a positive and significant relationship between interpersonal relationships at work with the pressures of new technology in careers.

3. Research Method

The survey was conducted during October 2019 using an online questionnaire applied directly by the researchers. This questionnaire was handled quantitatively and answered by 186 workers. Based on the objectives of this study, namely to analyze the pressure of new technologies on career careers from the perspective of career theory based on the adaptation of the instrument by Veloso et al. (2012), who operationalize the concept of intelligent careers, namely knowing why, knowing how, knowing whom (Arthur et al., 1995). Then measured also about the new standardization of work and the pressure in work that their tasks can be replaced by technology, questions are developed based on a theory developed by Trevisan (2014), using an instrument adaptation developed by Trevisan et al. (2016). The questionnaire adapted by the authors was applied based on the indicators shown in Table 3.1. This table contains indicators generated from the theory and adopted in the questionnaire using a Likert scale.

The sampling technique in this study uses convenience sampling technique where sampling conducted randomly (Malhotra, 2010) by selecting respondents who are available and easily accessible. For determination in numbers, researchers use sample measurement guidelines depending on the number of indicators multiplied by 5 (Hair., et. Al, 2014). The analytical method used in this research is to use multiple linear regression method (multiple linear regression), which is a statistical method to test the effect of more than one independent variable on one dependent variable (Ghozali, 2013: 8). The tool used in research is using SPSS software.

4. The Result, Discussion, and Managerial Implication

Respondent Profile

Respondent characteristics are used to show the demographics of respondents viewed from gender, age and length of work. By knowing the respondents' demographics we will find out the characteristics of the respondents in this case the workers.

in this study more dominated by men that is equal to 57.7% compared to women who only amounted to 42.3%. Age wise, respondents are more dominated by workers aged less than 25 years which is 66.7%, then for the age range 25 to 30 years by 19.8%, for the age range of 30 to 35 years by 12.6% and the least are workers with age above 35 years which is equal to 0.9%.

From the length of working experience, respondents were dominated by workers who worked between 0 to 2 years at 60.4%, then worked between 2 to 8 years at 27%, to work between 8 to 15 years at 11 7% and the fewest are workers who work for more than 15 years, namely 0.9%.

Hypothesis Result

All the classic assumption tested, the data are declared eligible for further testing, then step the last thing to do is to test the hypothesis. This test aims to answer the formulation of the problem as well as a temporary allegation on the answer to the problem formulation stated in the hypothesis. Some things that are included in this hypothesis test includeregression equation, F test (simultaneous test), coefficient of determination (R2) and t test (partial test).

The results of calculations and data processing using the Statistical Program for Social Science (SPSS), obtained Coefficients table as below. From

Table 1. Multiple Linear Regression Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.59	1.495		0.394	0.694
Self Identity	0.338	0.105	0.294	3.216	0.002
Perception of Competence	0.298	0.092	0.327	3.233	0.002
Interpersonal Relationship	0.261	0.114	0.225	2.291	0.024

Table 2. F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	751.746	3	250.58	47.8	.000[b]
Residual	560.957	107	5.243		
Total	1312.7	110			

a. Dependent Variable: New Technology
b. Predictors: (Constant), Interpersonal Relationship, Self Identity, Perception of Competence

Source : SPSS (2019)

table 1 several conclusions can be drawn, one of which is multiple linear regression equation.

Looking at the Unstandardized Beta Coefficients values above, it can be determined that the multiple linear regression equation resulting from this study is as follows:

$$Y = 0.590 + 0.338X1 + 0.298X2 + 0.261X3$$

Which means that:

a. Constant of 0.590 which means that if the variable Self Identity, Perception of Competence and Interpersonal Relationships is considered zero then the Pressure variable is new technology in career is only 0.590.
b. The regression coefficient of the Self Identity variable is obtained a value of 0.338 which means that if the Self Identity variable has an increase while the Perception of Competence and Interpersonal Relationships variables are assumed to be constant then the pressure of new technology in a career will also increase by 0.338.
c. Regression coefficient of Perceptions of Competence values obtained value of 0.298 which means if the variable Perception of Competence has increased while the variables of Self Identity and Interpersonal Relationships are assumed to be constant, the pressure of new technologies in careers will also increase by 0.298.
d. The regression coefficient of the Interpersonal Relationship variable was obtained a value of 0.261 which means that if the Interpersonal Relationship variable had an increase while the Self Identity and Perception of Competence variables were assumed to be constant then the pressure of new technology in a career would also decrease by 0.261.

T-test Result

This t test aims to see the effect of the independent variables on the dependent variable partially or individually. So in this study, it will be seen how the influence of Self Identity on the Pressure of new technology in a career, the effect of Perception on Competence on the Pressure of new technology in a career, and the influence of Interpersonal Relations to the Pressure of new technology in a career for workers. The t test results of this study can be seen in

Coefficients in table 1 is by looking at the value of t and sig. To determine whether H0 or H1 are rejected or accepted, the upper tcount can be compared with the ttable at the 5% significance level ($\alpha = 0.05$). The value of the table at the 5% significance level ($\alpha = 0.05$) was 1.982. By comparing tcount and ttable, the following conclusions can be drawn:

a. Partially Self Identity has a positive and significant effect on the pressure of new technology in a career because tcount (3,216)> ttable (1,982) and its significance value is 0,002 less than 0,05.
b. Partially, Perception of Competence has positive and significant effect on the pressure of new technology in career because tcount (3.233)> ttable (1.982) and the significance value is 0.002 less than 0.05.
c. Partially, the Interpersonal Relationship has a positive and significant effect on the pressure of new technology in a career because tcount (2,291)> ttable (1,982) and the significance value is 0.024 less than 0.05.

F test result

F Test or known as Simultaneous Test aims to see how much influence all independent variables (independent) in this case Self Identity, Perception of Competence and Relationships

Interpersonal together with the dependent variable (dependent). The F Test results in this study can be seen in the Table 2.

The table 2 shows that the value of Fcount that is processed using SPSS is 47.797. Meanwhile the F table value seen in the Table of Values for the F Distribution is 2.69. Thus it can be said that the value of Fcount = 47.797> from Ftable = 2.69. This means that the independent variable consisting of Self Identity, Perception of Competence and Interpersonal Relationships has a significant effect on the pressure of new technology in careers for workers.

Coefficient of Determination

After the independent variable is stated to influence the pressure of new technology in a career,

Table 3. Coefficient Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.757[a]	0.573	0.561	2.28967

a. Predictors: (Constant), Interpersonal Relationship, Self Identity, Perception of Competence
b. Dependent Variable: New Technology
Source: SPSS (2019)

then to see how much its influence can be seen in the Summary Model Table of calculations using the Statistical Program for Social Science (SPSS), as shown in Table 3.

The table 3 shows that the Adjusted R Square value is 0.561 or 56.1%. This means that the independent variables such as Self-Identity, Perception of Competence and Interpersonal Relations together influence the dependent variable. The pressure of new technology in careers for workers is 56.1% while the remaining 43.9% is influenced by other variables not included in this research

5. Conclusion, Suggestion, and Limitations

The results of data processing that have been carried out by researchers indicate that the results of hypothesis testing of self-identity variables to the pressure of new technology in the declared influential and significant. Thus for hypothesis 1 which reads "There is a positive and significant relationship between the self-identity of the worker and the pressure of new technology in his career", accepted. Hypothesis test results Competency Perception of Pressure on the presence of new technology in careers

declared influential and significant. Thus for

Hypothesis 2, which reads "There is a positive and significant relationship between perceptions of competence in workers against the pressure of new technology in their careers", was accepted. Hypothesis test results for the variable Interpersonal Relationship to the Pressure of new technology in a career are declared influential and significant. Thus for hypothesis 3 which reads "There is a positive and significant relationship between relationships of interpersonal work towards the pressures of new technology in a career ", was accepted. The results of the regression analysis showed that the variable Self Identity, Perception Competence and Interpersonal Relations together influence the Pressure of new technology in a career. The magnitude of the influence of Self Identity, Perception of Competence and Interpersonal Relationship to the Pressure of new technology in a career can be seen from the results of the coefficient of determination test which shows the adjusted R Square value of 0.561 or 56.1% while the remaining 43.9% is influenced by other variables which is not included in this study.

As a limitation of this study, we highlight the use of respondents' perceptions about the pressures of new technology in their careers, which may not represent a real perspective labor market. Future studies recommend qualitative studies of the way young professionals deal with the constant introduction of new technology in several careers.

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