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The Moderating Effect of Proactive Personality On Role Ambiguity And User Satisfaction: An Experimental Under Technostress Condition

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ABSTRACT

Abstract: The increasingly massive development of ICT (Information and Communication Technologies) makes the risk of technostress that triggers role ambiguity cannot be ignored. This study investigates the moderating effect of proactive personality on the relationship between role ambiguity and satisfaction. This study uses an experimental method involving 147 participants and placing participants in a state of technostress. Role ambiguity was categorized into 2 levels (high vs. low), proactive personality was categorized into 2 levels (confront vs. transform). The research findings show that the proactive personality (transform) has greater power in inducing user satisfaction than the proactive personality (confront). Proactive personality weakens the influence of role ambiguity on user satisfaction. Proactive personality as an individual innate factor can be elaborated as an attempt to filter the negative influence of role ambiguity on user satisfaction in ICT.

INTRODUCTION

The sustainability of the use of Information and Communication Technologies (ICT) cannot be separated from user satisfaction (Ayyagari et al., 2011; Saganuwan et al., 2015; Suh & Lee, 2017). User satisfaction with ICT cannot be separated from the individual's cognitive capability in utilizing the ICT (Hung et al, 2015; Sumiyana & Sriwidharmanely, 2019). Individual cognitive limitations that occur in the increasing complexity of ICT developments trigger technostress (Farrish & Erdwards, 2020). Thus, the existence of technostress becomes an inherent factor along with ICT developments. Several studies show that stress due to ICT developments is the cause of role ambiguity (Tubre & Collins, 2000; Ilgen & Hollenbeck, 1991). Therefore, along with ICT developments, the impact of role ambiguity may hurt user satisfaction, becoming an issue that cannot be ignored and requires further investigation.

Farrish & Erdward (2020) explained that the negative impact of ICT developments cannot be ignored because in the long term it has the potential to be quite detrimental. Thus, further investigation efforts are needed to effectively reduce the impact of role ambiguity. Sumiyana & Sriwidharmanely (2019) identify the role of proactive personality in mitigating the influence of technostress. Proactive personality is part of the innate characteristics and values of individuals who tend to be free and not easily changed when faced with changing environmental conditions (Bateman & Crant, 1993); Sumiyana & Sriwidarmanely (2019). Therefore, the role of proactive personality in dealing with environmental changes is an ICT that can trigger role ambiguity that cannot be ignored. Thus, this study investigates the moderating effect of proactive personality on the role ambiguity and user satisfaction relationship.

This study used an experimental method involving 147 participants. Participants were placed in a state of technostress. Role ambiguity was categorized into high and low, while proactive personality was categorized into comfort and transform. The findings indicate that proactive personality as an inherent factor in individuals is quite effective in filtering the negative impact of role ambiguity on user satisfaction. This research contributes to several main reasons. First, this study

extends on previous research by Hung et al (2015) and Sumiyana & Sriwidharmanely (2019) which only considered the direct relationship between proactive personality and user satisfaction. This study considers proactive personality as an effort to mitigate the impact of stressors on technostress which has been internalized in the individual's cognitive role, namely role ambiguity. Second, the use of experimental research methods can induce stressors and measure individual personality cognition directly (real-time). This complements the weaknesses of previous research methods that trigger cognitive confirmation bias (Sellberg & Susi, 2014). Third, the findings of this study can be used as material for consideration to encourage the proactive personality of individuals in organizations as an alternative to minimize the negative impact of ICT developments and role ambiguity to encourage increased attention to satisfaction of ICT users.

The structure of this study includes is in section 2, which discusses the literature review and hypothesis development. In section 3, discusses the research method. In section 4, discusses the results and discussion. Meanwhile, section 5 is a conclusion that includes conclusions, limitations, and suggestions.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Proactive Personality

Proactive personality is part of the characteristics and innate values of individuals who tend to be free and not easy to change when faced with changing environmental conditions (Bateman & Crant, 1993). Sumiyana & Sriwidarmanely (2019) explained that proactive personality is one of the main factors to explain the mindset and behavior of individuals. Individuals with a low proactive personality will tend to be passive and only follow the flow in response to environmental changes (Crant, 1995). Onyemah (2008) and Sumiyana & Sriwidarmanely (2019) explain that individual proactive personality types are divided into 2 categories, namely individuals with proactive characteristics in facing change (confront) and individuals with proactive characteristics in making changes by reading opportunities (transform). Hung et al (2015) explains that individuals with a transform proactive personality will be able to read

the opportunities for changes that occur, by seeing technostress as a trigger to make changes and create new and better opportunities. Meanwhile, individuals with the personal confront personality type, even though they only tend to try to deal with change, but can be used as a minimal effort to increase productivity when faced with technostress (Sumiyana & Sriwidharmanely, 2019). Therefore, the role of a proactive personality in dealing with environmental changes that can trigger stress cannot be ignored.

Hypothesis Development

The perspective of role conflict theory requires that stress as the cause of role ambiguity is the main trigger for individual cognitive stress that causes counter-productive behavior so that it can have an impact on satisfaction. However, Crant (2000) explains that proactive behavior is one of the keys to successful actions that cannot be ignored. Individuals with a proactive personality will have good adaptability to changes that occur to minimize the possibility of stress (Bateman & Crant 1993; Savickas & Porfeli 2012). Several studies have shown that proactive personality is quite effective in mitigating the negative effects of stress (Ruiselova & Prokopcakova 2010; Lau et al., 2013; Kisamore et al., 2014; Hung et al., 2015; Zhao et al., 2016). Stress along with massive ICT developments can be experienced by individuals within a certain period. This overtime can be internalized so that it triggers role ambiguity due to cognitive pressure so that it is possible to cause low of user satisfaction. Thus, the existence of a proactive personality that is responsive to change can encourage individuals to have the ability to read opportunities well so that it is possible to minimize cognitive pressure from role ambiguity which can again increase individual satisfaction. Thus, the hypothesis proposed in this study:

Ha: Proactive personality moderate the role ambiguity on satisfaction relationship.

RESEARCH METHODS

Research Design

This study used a laboratory experiment with a between-subjects 2x2 factorial design. All participants in this study were placed in a technostress condition. Role ambiguity is grouped

with the median split into levels i.e: high and low. Meanwhile, the proactive personality is grouped with the average difference into levels i.e: confront and transform and measures the level of satisfaction.

Participants

This study involved students as stressor subjects for preparing financial statement accounts. The use of students as research subjects is adjusted to the research design and it has been explained by Kunz (2015) and Trapp & Trapp (2018) that students may not have an idea about the design of performance appraisal systems that are generally used in the world of work, so they tend to produce results that are independent of social desirability bias. Shadish et al. (2002) and Nahartyo (2013) suggest that researchers consider the requirements of the experiment to determine the appropriate subject level. Even so, the students did not have as much experience as practitioners. To minimize the social desirability bias, students who are used as participants are students with the criteria for fulfilling certain course requirements, namely accounting information systems, management accounting, and management control systems who understand the concept of accounting information systems, risks and their controls from various conceptually studied cases. So that the social desirability bias can be minimized. In addition, Mortensen et al., (2012) also suggest that students who already have advanced accounting skills can serve as practitioner shift researchers.

Experiment Assignment

The assignment of experiments in this study refers to Riedl et al (2012) which was also used by Sumiyana & Sriwidharmanely (2019) with several modifications. Participants in this study were placed as financial account managers. This experiment display information about the new information system adopted by the company. Each participant was asked to prepare a chart of accounts in the Financial Statements and classify unstructured accounts into several main account classifications, namely assets, liabilities, equity, costs, and revenues. The respondent's task is to concentrate individually on completing their work with middle levels of difficulty to trigger the emergence of stressors. Assignment as suggested by Tams (2011) that this method is the most appropriate for experimental tasks related to technostress compared to anagram

or jumper assignment. The experimental procedure in this study is represented in figure 1, which begins with the initial registration of participants which will then be randomized with the help of permutations by Microsoft excel. Participants will be given random treatment according to the results of the permutations. The initial stage will ask participants to complete an informed consent form to become a participant. After completing the consent participants will be faced with each task for 30 minutes. Mechanism to limit the working time to trigger pressure on each participant. At the end of the session, participants will be asked to fill in demographic information to ensure the randomization with the help of permutations goes well. Debriefing carried out by providing information to participants on the treatment that has been given to participants and the purpose of being manipulated, and the objectives of the research conducted

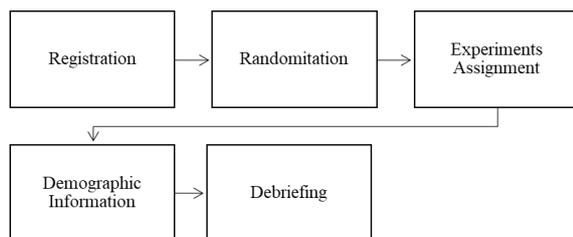


Figure 1. Experimental Procedure

Variable, Manipulation and Measurement

All participants in this study were placed in technostress condition. Participants in technostress conditions will receive several assignment accounts to trigger stress. The independent variable in this study is role ambiguity. Role ambiguity is divided into two categories, i.e: high and low. The instrument used in this study refers to the instrument developed by Rizzo et al (1970) which has also been used in the studies of Tubre & Collins (2000) and Mass & Matejka (2009). Role ambiguity is measured by 6 questions and the separation of categories is done by using the median split value.

Second, the moderating variable in this study is proactive personality. The proactive personality measurement was adopted from the research instrument by Onyemah (2008) which was also used by Sumiyana & Sriwidharmanely (2019) with verified validity and reliability values. Proactive personality is divided into two categories, i.e: transform and conform. The division of categories

is based on the highest average value of the answers about the two proactive personalities. Third, the dependent variable in the study is satisfaction. The dependent variable, namely user satisfaction, was measured using the research instrument used by Tarafdar et al (2010) and has also been adopted by Sumiyana & Sriwidharmanely (2019), both studies showed adequate reliability and validity values.

Results and Discussion

This study involved 155 experimental participants, but 8 participants did not answer the manipulation check correctly. Thus, the participant data used for further testing were 147 participants. All participants were placed in a technostress condition. Role ambiguity in this study is grouped based on the median split value, and the questionnaire measurement uses a Likert scale. The test results show Cronbach's alpha value of 0.800 or 80.0% which indicates more than the minimum required value of Cronbach's alpha of 0.70 or 70% (Hair et al., 2014). This indicates that there is no reliability problem found in the research instrument used. The results of the analysis show that there is a relationship of each role ambiguity indicator to the total score of the role ambiguity construct. The results of the analysis show a significant value at the 1% (2-tailed) level, which indicates that each indicator in this study is valid. Overall, this study is waiting for data that has passed the manipulation check. There are 147 participants and all variables have met the validity and reliability. Thus, there is reasonable confidence that the data can be used for hypothesis testing.

This study predicts that proactive personality moderates the relationship between role ambiguity and user satisfaction. Before testing the hypothesis, the homogeneity test was carried out with Levene's test. The test results show the p-value > 0.098. This indicates that there is no problem of data homogeneity so that hypothesis testing can be carried out. The results of the analysis are presented in table 1, table 2 and figure 2 below.

Table 1. Hypothesis Testing

Variables	Mean Square	F	Sig.
Corrected Model	311,711	11,789	.000
Intercept	71519.261	2704,944	.000
Role Ambiguity * Proactive Personality	311,711	11,789	.000
Error	26,440		

Table 2. Marginal Mean Value

Variables		Estimated Marginal Means
Role Ambiguity	Proactive Personality	
	Conform	19,636
High	Transform	25,545
	Conform	21,632
Low	Transform	26,056

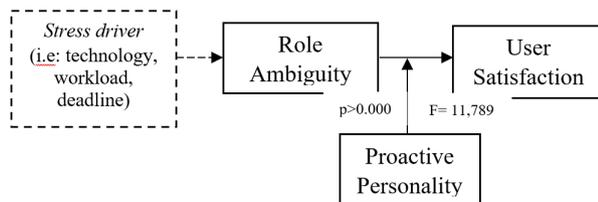


Figure 2. Research Model

The analysis of the moderating effect of proactive personality on the role ambiguity and user satisfaction relationship showed $F=11.789$; $p>0.000$. Specifically, in conditions of low role ambiguity, user satisfaction tends to be greater in proactive personality (transform) conditions than in proactive personality (conform) with an average marginal value of 26,065 rather than 21,632. The same thing is also seen in the high role ambiguity condition that the tendency for user satisfaction tends to be greater in the proactive personality (transform) condition than the proactive personality (confront) with a score of 25,545 rather than 19,636. This finding indicates that there is support for the proposed alternative hypothesis that proactive personality can weaken the influence of role ambiguity on individual satisfaction tendencies.

The occurrence of stress due to massive ICT developments can cause an imbalance in cognitive conditions, causing role ambiguity due to misalignment between the expected conditions and the actions that have been taken. The occurrence of role ambiguity causes the individual's mindset to be not optimal and rational so that it can have an impact on perceived job satisfaction. Mass & Matejka, (2009) explained that the perceived role ambiguity of the individual makes him feel a conflict of discomfort so that it can have an impact on his assessment standards. Role ambiguity faced by individuals causes discomfort and becomes one of the cognitive stresses that triggers a decrease in quality

and satisfaction. The results of this study generally confirm the findings of previous studies such as Sumiyana & Sriwidharmanely (2019) explaining that too high pressure on individual cognitive will have an impact on decreasing cognitive capability and individual attention level.

Further analysis showed that there was a significant effect that proactive personality weakened the negative effect of role ambiguity on user satisfaction. This significant relationship with a proactive personality that is responsive to change can encourage individuals to have the ability to read opportunities well so that it is possible to minimize the cognitive pressure of role ambiguity on satisfaction. The results of this study generally confirm the findings of previous studies such as (Ruiselova & Prokopcakova 2010; Lau et al., 2013; Kisamore et al., 2014; Hung et al., 2015; Zhao et al., 2016) showing that proactive personality is sufficient. effectively mitigate the negative impact of technostress on performance and user satisfaction. Proactive personality is one of the values inherent in individuals that can be used as a control mechanism on individual cognitive when faced with role ambiguity due to stressor triggers.

The existence of a proactive personality that an individual has when in a condition of role ambiguity due to complexity and technostress will encourage to minimize his weaknesses. Proactive personality encourages individuals to turn role ambiguity due to difficult ICT developmental stressors into opportunities by viewing them as threats. This is as explained by Ragu-Nathan et al. (2008) and Tarafdar et al. (2011) that individuals with proactive personalities can creatively take advantage of existing mechanisms and opportunities along with ICT developments. Mitigated arrangements are the provision of technical support, literacy facilities, facilitation of ICT engagement, and innovation support.

CONCLUSION

This study aims to provide empirical evidence of the moderating effect of proactive personality on the role ambiguity and user satisfaction relationship. This research shows that proactive personality fully moderates the effect of role ambiguity on user satisfaction. The findings of this study provide additional evidence by showing

the existence of a personal value factor, namely a proactive personality, which is quite effective in mitigating the stressor impact of ICT developments, namely role ambiguity. Moreover, this research approach assumes that technostress exposed to cognitive capabilities can have an impact on behavior and actions taken (Biddle, 1986), thus placing all participants in a technostress condition. There are several limitations to this study that require further review. First, this study only considers the role of individual cognitive and personal values without considering differences in individual risk preferences. Meanwhile, along with the development of behavioral research, it is shown that differences in risk preferences may have a material impact on individual behavior, including the use of ICT. Second, this study uses the assumption of

role ambiguity as one of the explanations of role conflict theory by not considering the existence of other role conflicts. This is by the aim of the research that focuses on the realm of conflict due to limited cognitive capabilities, while some other role conflicts may have a greater impact on behavior and performance. Thus, future research can consider the impact of each individual's risk preferences as personal characteristics.

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