THE EFFECT OF DIGITAL COMMUNICATION AND WORK BOREDOM ON THE WORK CREATIVITY OF CIVIL SERVANTS

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Abstract

The existence of a policy of implementing work without being in the office has become a new work order that forces companies to do work variations. The emergence of the extraordinary events has changed the perspective of work activities to be more responsive and adaptive to changes by implementing WFH (Work From Home) and remain productive. However, restrictions on movement to explore and exploit in carrying out work activities become obstacle for the employees in giving maximum contribution to the company. Likewise with civil servants who are required to do their work activities at home. These new work activities indirectly have an impact on well-being that interferes emotionally with time and builds the employees' boredom in carrying out work which can ultimately reduce their work creativity. This study aims to explore the effect of digital communication and work boredom on the work creativity of civil servants. This research method is conducted through the distribution of questionnaires using the Structural Equation Modeling (SEM) method and using the Analysis Moment of Structural (AMOS) version 21.0 program, as the analytical tool. The results of the study indicate that Digital Communication has no effects on Work Boredom. Likewise, work boredom has no effects on the employees' creativity. However, digital communication has effects on the employees' creativity.

Keywords: Quality Service, Customer Relations, Image

INTRODUCTION

The 2020 pandemic disaster is a world tragedy that has an impact on companies' productivity. The pandemic crisis became an unprecedented beginning of world history. Accumulatively from worldometers data, 213 countries infected with the COVID-19 virus have reached 9,176,959, in fact there are ten countries with the highest number of COVID-19 cases, namely the United States, Brazil, Russia, India, England, Spain, Peru, Chile, Italy, and Iran (Arbar, 2020). The emergence of the extraordinary events has changed the perspective of work activities to be more responsive and adaptive to changes by implementing WFH and remain productive. The policy of implementing work without attendance at the office has changed all aspects of the work order forcing companies to do new variations of work (Bodewits, 2020). The implementation of WFH using technology creates a new challenge that has not been done by all companies before, so it becomes a new problem. According to Yoshio (2020), the results of a survey conducted by researchers from Harvard Business School and New York University showed that when carrying out WFH, 68% of workers from giant technology felt excessive mental fatigue and 60% admitted that there was an increase in working hours and meeting activities of 12.9%. The policy of working from home resulted in an increase in work stress (Masyhuri et al., 2021). Covid-19 has made a new trend for State Apparatus and Civil Servants to carry out work activities not only at the office but also at home. The application of WFH in government agencies is an interesting challenge. WFH makes time

more flexible for the employees, so they can encourage them to work more productively. However, the use of technology will significantly extend the working day of the employees where most of them have spent time serving online services and attending online meetings. The use of this technology will cause fatigue and reduce the welfare of the civil servants. The employees experience burnout when they are required to balance work and family time, while the frequency of online meetings and tasks being carried out is increasing.

The previous researches were more focused on systems perspective and technology acceptance and were based on very specific sample characteristics, but not much had been discussed about the positive and negative consequences of using technology, even though organizations are faster in adopting digital technology. The use of digital communication is mostly considered as demand, but it can also be a tool to streamline the flow of communication in the workplace (Bordi et al., 2018). In contrast to the research conducted by (Korzynski et al., 2020) that personal innovation regarding new technologies has positive relationship with creativity. Then the current conditions are still few studies that predict a person's ability to cope with boredom in a better way (Oprea et al., 2019; Skowronski, 2012). Work boredom will be negatively correlated because the employees feel that they have lost meaning in the workplace and will form emotional tension and decreased well-being (Azizah, 2019), but work-related boredom is positively correlated with the employees' creativity. The boredom of employees doing work activities at home due to social isolation during the COVID-19 pandemic makes them do online recreation to help them develop at home (Chen, 2020) and support creative ideas and task motivation through problem-solving abilities (Zhou & Shalley, 2003).

Based on the results of the phenomena and research gap above, it is necessary to conduct further research on the effect of work boredom and digital communication on the employees' creativity. As for the novelty or originality of this research, we want to test the model regarding the effect of digital communication on work boredom and the employees' creativity and examine the effect of the model from work boredom on the employees' creativity which has not been widely studied so far.

THEORETICAL FRAMEWORKS AND HYPOTHESES

Digital Communication and Work Boredom

Digital Communication is an effective means of technological communication with the stakeholders. The main obstacle in using digital communication is the failure to understand the technology (García García et al., 2017). Optimizing the use of technology highly depends on the employees' acceptance (Jacobs et al., 2019). The increasing workload caused by technology will have an impact on the use and demands of work (Bordi et al., 2018). This difference will be seen from several generations for the extra effort made so that some employees will lose control of their work activities (Barley et al., 2011). The employees who have high awareness are able to reduce work boredom and are able to adapt to change. The influence of the work environment can reduce the risk of the employees in experiencing work boredom (O'Mahony, 2011; Pratama, 2019). On the other hand, the constraints on the use of technology and an unsupportive work environment will cause employee work boredom. Based on the above, the hypothesis that can be proposed in this study is:

H1: Digital Communication has effects on work boredom (Work Related Boredom).

Work Boredom and Employees' Creativity.

The employees play an important role in arousing and building boredom related to the

work done (Gkorezis & Kastritsi, 2017). Boredom is a psychological situation that causes a person not to have the desire to do the same activity. The higher the boredom, the lower the activity and creativity of a person at work. This indicates something unpleasant and will disable work-related emotions. Work boredom will produce negative intrinsic values (van Hooff & van Hooft, 2014). The employees who are too long to do routine work will cause a form of boredom that reduces the spirit to be creative. Work boredom makes a person passive, lacks of variety and challenges related to the work being done, thereby reducing the employees' creativity. The hypothesis proposed in this study is:

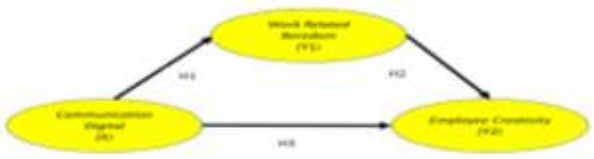
H2: Work Boredom has effects on Employees' Creativity.

Digital Communication and Employees' Creativity

The era of digitalization has grown rapidly throughout the world, so that it has become an important part of electronic services that must be provided by companies (Leakey, 1990). The role of digital communication plays in actions related to information and work activities. Digital communication can be used to improve the suitability of technology and activities to be carried out (Bordi et al., 2018). Digital communication makes transaction efficient. Communication can run faster and provide accurate monitoring of distribution and business management improvements (Leakey, 1990). As businesses become more and more globalized, digital communications are becoming increasingly important in achieving the success and the efficiency of industrial management work. Optimization of its use highly depends on the employees' acceptance of the provided technology (Jacobs & al, 2019). Digital communication will provide additional instructions to improve task management, and facilitate health and well-being (Kalantari, M, 2017) so that creativity can be generated. Therefore, the hypothesis proposed in this study is:

H3: Digital Communication has effects on Employees' Creativity

The variable relationship can be seen in the model framework which can be seen in Figure 1, as follows:



Source: Model development, 2022
Figure 1. Research Model

RESEARCH METHOD

This study is an "Explanatory Research" study that emphasizes the relationship among research variables by testing the variables to be studied in order to explain the effect of one variable on another (Sugiyono, 2017). The measurement of variables can be seen in table 1.

Table 1. Variable Measurement

No.	Variable	Indicator	Source
1	Work Boredom	1. Cognitive 2. Affective 3. Behavior	(van Hooff & van Hooft, 2014).
2	Digital Communication	1. Digital Communication Volume 2. Connectivity Expectations 3. Message Quality 4. Adaptation of Communication Tools	(Bordi et al., 2018).

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		5. Technical and Flexibility Issues	
4	Employees' Creativity	1. Ability to generate creative ideas. 2. Problem solving ability that generates creativity. 3. Task motivation	(Zhou & Shalley , 2003)

The population is the object of the generalization area, an object or subject that has conditions related to the problem being studied (Sugiyono, 2017). The population in this study was civil servants in Central Java, which amounted to 40,543 people (Zaroh, 2021).

The sample is part of the population that is used as data source to represent the entire population (Sugiyono, 2017). Sampling was carried out using the formula of Taro Yamane as follows:

$$n = \frac{N}{N(d)^2 + 1}$$

$$n = \frac{40.543}{40.543(0,1)^2 + 1}$$

= 99.75 rounded up to 100

Note:

n = Sample Size, N = Population Size, d = precision specified by Application:

The sampling was 100 people who were distributed in several cities in Central Java. Sampling method used purposive sampling. The sampling criteria were: employees with a minimum of 5 years of service, with a minimum education of high school, the rank group was class III and above.

The data collection procedure in this study was carried out by distributing questionnaires submitted to respondents which gave freedom to the respondents to answer according to their way of thinking by providing measurement scales of SA (Strongly Agree) with a value of 5 (five), Agree (A) with a value of 4 (four), Neutral (N) with a value of 3 (three), Disagree (DA) with a value of 2 (two) and Strongly Disagree (SDA) with a value of 1 (one).

The method and the analysis data retrieval in this study used structural equation modeling (SEM) analysis and carried out processing with the IBM SPSS AMOS version 21.0 application as the tool to test the relationship among variables in a model, analyzed and interpreted the relationship among indicators so that conclusion can be drawn.

RESULT AND DISCUSSION

Validity Test and Reliability Test

The results of the validity and reliability tests using the construct reliability test (CR) and the Average Variant Extracted (AVE) test indicate that all models have met the criteria in this study. The requirements for fulfilling the criteria are if construct reliability (CR) is > 0.07 and if Average Variant Extracted (AVE) is > 0.5. The model results show that the value of construct reliability (CR) (0.93; 0.7; 0.87) is > 0.07. The Average Variant Extracted (AVE) values are 0.8; 0.7; 0.6 > 0.5.

Table 2. Test of Validity and Reliability

Description			Stand. Regression Weights	Variances	CR	Calculation		AVE	Calculation		
X1	<---	X	1	0.51	11.76	11.76	0.93	1.00	4.0	4.0	0.8
X5	<---	X	1.32	0.07	0.85	12.61		1.74	0.9	4.9	
X6	<---	X	1.11	0.34				1.23			
Y1.1	<---	Y1	1	0.32	6.35	6.35	0.7	1.00	3.7	3.7	0.7
Y1.2	<---	Y1	0.5	0.32	3.13	9.48		0.25	1.8	5.5	
Y1.3	<---	Y1	1.5	0.66				2.25			
Y1.4	<---	Y1	-0.48	0.47				0.23			
Y2.1	<---	Y2	0.752	0.15	7.92	7.92	0.87	0.57	1.6	1.6	0.6
Y2.2	<---	Y2	0.524	0.19	1.21	9.13		0.27	1.1	2.7	
Y2.3	<---	Y2	0.539	0.19				0.29			
Y2.4	<---	Y2	0.578	0.32				0.33			
Y2.5	<---	Y2	0.421	0.25				0.18			

Source: Processed data, 2022

SEM (Structural Equation Model) Analysis

The following is the results of structural equation modeling (SEM) analysis using IBM SPSS AMOS version 21.0 application processing. In Figure 2, it is explained that after testing the model by eliminating several indicators that are not normally distributed, namely X1, X2, X3, X4, X7 and Y1.5, to determine whether a model is worth testing or not, it can be seen from the value of the degree of freedom. If the value of degree of freedom (Df) is > 0 or positive, then it is categorized as an over-identified model. The reduction of the indicator will make the value of the degree of freedom (Df) of 51. The results of this analysis are categorized as an over-identified model.

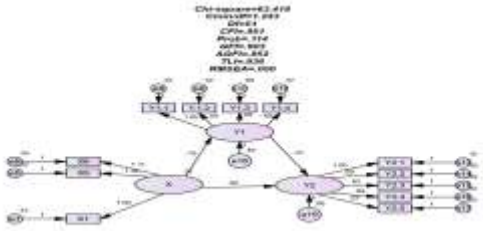

Figure 2. The Testing Results of the Full Model of Structural Equation Modeling (SEM) after eliminating several indicators.

Goodness of Fit (GOF) Model Test

Table 3. Goodness of Fit (GOF)

GOF	Hasil Analisis	Cuts of Value	Evaluasi Model
CMIN/ DF	1,243	≤ 5,0	*Good fit*
CFI	0,951	≥ 0,90	*Good fit*
RMSEA	0,050	≤ 0,08	*Good fit*
TLI	0,936	≥ 0,90	*Good fit*

Source: The results of data processing (2022)

The results of testing the goodness of fit criteria in the research model shown in Figure 2 and Table 2 have obtained chi square value of 63,418 with probability of 0.114, RMSEA value of 0.050 0.080, TLI value of 0.936 0.90, CFI value of 0.951 0.90 and CMIN /DF of 1.243 2.00. The data from this test show that all of the good fit models are well-accepted, so that all models are met due to the fulfillment of the model's feasibility.

Hypothesis Test Result

Hypothesis testing was done by looking at the critical ratio on the regression weights of the fit model. Hypothesis testing was carried out with a significance level of 0.05. If the critical ratio is 1.967 or probability (P) is 0.05 and the estimation value from the analysis results is positive, the research hypothesis will be accepted. Hypothesis results can be seen in Table 3 as follows:

Table 4. Hypothesis Test Result

Regression Weights: (Group number 1 - Default model)

			Estimate	Std. Est.	S.E.	C.R.	P	Label
Work Boredom (X)	<---	Digital Communication (Y1)	-.789	-.412	.281	-2.814	.005	Rejected
Employees' Creativity (Y2)	<---	Digital Communication (Y1)	.923	.831	.227	4.067	***	Accepted
Employees' Creativity (Y2)	<---	Work Boredom (X)	-.011	-.019	.074	-.151	.880	Rejected

Based on the estimation results above, the following conclusions are obtained:

Hypothesis Test 1: Digital Communication (X) has effects on Work Boredom (Y1)

The results of the hypothesis test show that the CR value is -2.814, this indicates that the CR value is negative and below the standard value, namely ≥ 1.967. While the probability value (P) is 0.005 with negative estimation value. Because the CR is smaller and the estimation value is negative while the probability value (P) is ≤ 0.05, so it does not meet the criteria and the H1 hypothesis in this study is rejected. This means that Digital Communication has no effects on Work Boredom. This is not in line with the research conducted by (Coughlan et al., 2019; Game, 2007; Whiteoak, 2014) that the use of digital communication has effects on work boredom on moral decline and work quality.

H2: Work Boredom (Y1) has effects on Employees' Creativity (Y2).

The results of the hypothesis test show that the CR value is -0.151, this indicates that the CR value is negative and below the standard value, namely ≥ 1.967. While the probability value (P) is 0.880 with negative estimation value of -0.011. Because the CR is smaller and the estimation value is negative while the probability value (P) is greater than 0.05, the hypothesis in this study is rejected. This means that work boredom has no effects on employees' creativity. This is not in line with the research conducted by (Chen, 2020) and (Zhou & Shalley, 2003) that work-related boredom is positively correlated with employees' creativity because employees can do online recreation to support creative ideas in carrying out tasks at home.

Hypothesis Test 3: Digital Communication has effects on Employees' Creativity

The results of the hypothesis test show that the CR value is 4.067, this indicates that the CR value is positive and above the standard value, namely 4.067 ≥ 1.967. While the probability value (P) is *** ≤ 0.05 with positive estimation value. Because the CR value is greater and the estimation value is positive and the probability value (P) ≤ 0.05, the hypothesis in this study is accepted. This means that Digital Communication has effects on Employees' Creativity. This is in line and consistent with the research conducted by (Bordi et al., 2018; Jacobs et al., 2019; Korzynski et al., 2020) that the presence of new technologies will create creativity in creating personal innovations to help them carry out their work activities.

CLOSING

Conclusion: Based on the results of research and data processing, the conclusions can be described as follows: 1. Digital Communication has been proven to have no effects on the work boredom of civil servants in Central Java. It can be interpreted that the increasing digital communication will not have effects on work boredom. Digital communication will help employees explore and exploit knowledge and acquire new skills. 2. Work boredom is proven to have no effects on the creativity of civil servants in Central Java. This means that when employees who are able to cope with boredom better will tend to have maximum level of work involvement so that they can create creativity at work. 3. Digital Communication has positive and significant effects on the creativity of the employees of Central Java civil servants. The results of this study are consistent with the research conducted by (Bordi et al., 2018; Korzynski et al., 2020) that the existence of digital communication has provided a new system to streamline the flow of communication in creating creative innovations.

Research Limitations: This study did not use an open-ended questionnaire, so the results of the analysis were not optimal. Future research is expected to add new mediating variables related to employees' intrinsic motivation and add simple open-ended questions and provide respondents with a better understanding of these open-ended questions. Suggestions for further research, the researchers can modify the model by adding other variables which are not found in this study.

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