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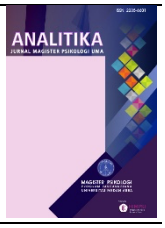

Hubungan antara Stress Digital dan Kinerja Pegawai dengan Modal Psikologis sebagai Moderator

Relationship between Digital Stress and Employee Performance with Psychological Capital as Moderator

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Abstrak

Penelitian ini bertujuan untuk mengeksplorasi hubungan antara stres digital dan kinerja pegawai, serta peran modal psikologis sebagai moderator dalam hubungan tersebut. Penelitian ini menggunakan metode kuantitatif dengan melibatkan 231 partisipan yang bekerja di institusi X, di mana teknologi informasi dan komunikasi (TIK) merupakan bagian integral dari tugas pegawai sehari-hari. Variabel yang diukur dalam penelitian ini meliputi stres digital, kinerja pegawai, dan modal psikologis. Dalam penelitian ini menggunakan kuesioner Digital Stressor Scale (DSS) untuk mengukur stres digital, Individual Work Performance Questionnaire (IWPQ) untuk mengukur kinerja pegawai, dan Psychological Capital Questionnaire untuk mengukur modal psikologis. Hasil penelitian menunjukkan bahwa modal psikologis pegawai berada pada kategori tinggi (M= 4,430), dan kinerja pegawai juga tinggi (M= 3,284), sementara stres digital berada pada kategori sedang (M= 4,005). Analisis lebih lanjut mengungkapkan bahwa modal psikologis terbukti berperan moderator dalam hubungan antara stres digital dan kinerja pegawai.
Kata Kunci: *Kinerja; Stres Digital; Modal Psikologis*

Abstract

This study aims to explore the relationship between digital stress and employee performance, as well as the role of psychological capital as a moderator in this relationship. The research employs a quantitative method involving 231 participants working at Institution X, where information and communication technology (ICT) is an integral part of employees' daily tasks. The variables measured in this study include digital stress, employee performance, and psychological capital. The study uses the Digital Stressor Scale (DSS) to measure digital stress, the Individual Work Performance Questionnaire (IWPQ) to measure employee performance, and the Psychological Capital Questionnaire to measure psychological capital. The findings reveal that employees' psychological capital is in the high category (M= 4.430), and employee performance is also high (M= 3.284), while digital stress is in the moderate category (M= 4.005). Further analysis indicates that psychological capital acts as a moderator in the relationship between digital stress and employee performance.
Keywords: Work Performance; Digital Stress; Psychological Capital

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INTRODUCTION

Institution X is a state institution that is strategically responsible for maintaining security, order, and law enforcement in accordance with Law No. 2 of 2022. In addition, this organization is also responsible for creating a sense of security and justice by providing protection, services, and protection to the community. To achieve this goal, there is a work unit that is specifically responsible for human resource management. This work unit handles things like career planning, development, and management to ensure that the organization's performance remains optimal. To support the success of the main tasks and functions of the institution, this unit plays an important role in competency development, capacity building, and employee professionalism improvement.

In the third bureaucratic reform, institution X emphasizes improving the quality of human resources through strengthening information technology, management in accordance with standards, and professional and accountable budget management. Given how important human resources are in a company, it is necessary to manage and develop existing managerial concepts, so that quality resources can be produced, which will ultimately have a positive impact on the company. Human resources must also formulate their own strategies, one of the ways is to improve employee performance. Employee performance is very influential in achieving company goals. Human resources (HR) have a very crucial role for an organization during increasingly dynamic changes. Therefore, every organization needs to have the ability to have quality human resources and be an asset for organizations with high competitiveness in adapting to change. This is the key to the success of an organization.

Employee performance in the work environment is very important to determine business continuity, especially in today's digital era. In the increasingly advanced digital era, the use of information and communication technology (ICT) has become an inseparable part of professional life. This technology offers many benefits to industrial companies, such as improving communication and freeing employees from tedious and inefficient physical work (Santos & Susman, 2000). Investments in information technology will reap great benefits for organizations, for example for automation purposes (Mukhopadhyay et al. in Fischer et al., 2021). In the research Tarafdar at al., (2023) they evaluated the use of Business Process Automation (BPA) business process automation software in the banking sector. The results show that the use of BPA can reduce processing time by up to 45%, improve operational accuracy, and reduce human error. The study also found that the use of digitalization such as BPA can improve overall performance and reduce operational costs, increasing organizational efficiency by up to 20% compared to traditional methods.

Apart from the benefits, the use of ICT also has an impact on ICT users. One aspect that has emerged along with the advancement and use of technological technology in the workplace is digital stress (Fischer et al., 2021). Previous research on digital stress is better known as "techonostress". Technostress is stress caused using Information Technology (Tarafdar et al., 2011) several studies have found that unexpected ICT behaviors can burden an individual's physiological health such as computer malfunction; system

malfunction leads to increased levels of adrenaline excretion and mental fatigue (Riedl, 2013).

The phenomenon of digital stress is the development of the interaction between stress and digital technology that arises from factors such as emotional fatigue, innovative climate, job satisfaction, and user satisfaction. The use of digital technology can pose further harm, including harm to individuals, ultimately affecting the performance of everyone within the company. The adverse impact of digital pressure on IT success, individual work performance, and emotional well-being has been proven in recent research (Fischer et al., 2021). Failure to effectively address digital pressures can lead to anxiety and hinder employee performance.

In recent years, research results on digital stress have negatively impacted the success of information systems such as: user intent; user satisfaction; performance of individuals who use technology in the workplace (Ragu-Nathan et al., 2008). Existing research on technostress in the field of IS mainly shows that technostress affects employee performance, showing that the overall impact of technostress sources on performance is negative (Tarafdar et al., 2011; Ragu-Nathan et al., 2008). The results of the study (Brilianti et al., 2023) showed that employees who work using technology feel stressed. The higher the digital literacy, the lower the performance. Research conducted by Galluch et al., (2021) shows that excessive use of information technology, such as email and instant messaging, can increase stress levels among employees. This can negatively impact performance as employees have difficulty focusing on tasks that require high concentration.

Subsequent research by Chen, S et al., (2022) also found that the unregulated use of digital technology can lead to digital fatigue and decrease performance. Employees who are constantly exposed to digital devices and work apps are likely to experience mental burnout, which reduces their motivation and productivity in the long run. This is supported by findings from research (Andani et al., 2022) which show that digital stress has a significant effect on performance. In the era of globalization and the industrial revolution 4.0, the role of information technology and digitalization has become crucial in guiding the development of various industrial sectors. Information & communication technology has changed our lives, becoming an integral part of our daily life routines including in the workplace. The phenomenon of digital stress occurs in various sectors, including the X institution sector. Employee performance decreased from 105.23% in 2021 to 99.19% in 2022, due to adjustments to digital systems in various administrative processes.

Psychological capital serves as a psychological resource that allows individuals to face challenges with a positive attitude (Luthans et al., 2015). In the context of digital stress, employees with high psychological capital show a better ability to adapt to the demands of technology and reduce the negative impact of digital stress on their performance (Xanthopoulou & Bakker, 2023; Avey et al., 2022). Psychological capital is a condition of positive psychological development characterized by: self-efficacy in taking and exerting all the necessary efforts to succeed in challenging tasks; creating positive attribution (optimism) about current and future success; perseverance in achieving goals, including the belief that the desired goals can be achieved (hope); and it can improve a person's

ability to bounce back from failure or adversity (resilience), helping them stay focused on their goals despite obstacles (Luthans et al., 2007). This research by Liang & Wang (2023) examines the moderation effect of psychological capital on the relationship between information technology demands and employee well-being. The study found that employees with higher psychological capital, especially in terms of expectations and resilience, showed lower levels of stress when facing digital challenges such as adapting to new technologies or technological disruptions. They are better able to stay focused and motivated, which contributes to better performance and higher job satisfaction.

In researching the relationship between digital stress and performance, psychological capital is expected to be a moderator. This capital plays an important role in determining whether the stress felt by individuals when using ICT will be an obstacle or even a challenge to improve performance optimally. The existence of this moderator variable helps us understand whether a variable contributes to strengthening or weakening the impact produced by the independent variable on the dependent variable. Understanding the relationship between digital stress and employee performance at institution X is important for several reasons. First, the report can shed light on the challenges faced by law enforcement professionals in adapting to the digital age and maintaining optimal performance under digital pressure. Second, it can provide insights into the potential organizational and individual interventions needed to mitigate the negative impact of digital pressure on performance. Finally, investigating the role of psychological capital as a moderator in this context is essential to identify potential protective factors that can improve resilience and problem-solving mechanisms among employees.

Although there have been studies on digital stress and performance in various organizational contexts, there is still no research that specifically examines digital stress on employee performance in government agencies. In addition, the role of psychological capital as a moderator in this relationship is still unexplored. However, the proposed study aims to address the literature gap by investigating the effect of digital pressure on the performance of employees of institution X, with a particular focus on the role of psychological capital moderation. This research is important to inform organizational strategies and support mechanisms to improve the welfare and performance of law enforcement professionals in the digital era.

RESEARCH METHODS

This study uses a non-experimental quantitative research method using the purposive sampling method for participant sample collection techniques with a correlational design using Process V 3.5 by Andrew F Hayes to determine the role of psychological capital moderation on the relationship between digital stress and performance. The participants in this study are employees of institution X who use information and communication technology (ICT) in their daily lives and have worked for a minimum period of 1 year as many as 231 participants. The target participants in this

study were calculated using the G-Power 3.1 application assuming the one tail hypothesis, effect size 0.260, significance level 0.05 and power statistic 0.80.

Performance variables were measured using the Individual Work Performance Questionnaire (IWPQ) measurement instrument which contained 18 questions developed by Koopmans et al., (2014). The measuring tool uses a 5-point likert scale from never to always. The Individual Work Performance Questionnaire (IWPQ) measurement tool consists of 3 dimensions, namely task performance, contextual performance and counterproductive work behavior. The measurement of digital stes was measured using a digital stressor scale (DSS) developed by Fischer et al., (2021) and adapted by Andani et al., (2022) consisting of 50 statements. This measurement instrument uses a 7-point Likert scale from strongly disagreeing to strongly agreeing. The Digital Stressor Scale (DSS) consists of 10 dimensions, each of which consists of 5 items, namely complexity, conflicts, insecurity, invasion (of privacy), overload, safety, social environment, technical support, usefulness, and unreliability. The measurement of psychological capital is measured using a scale developed by (Luthans et al., 2007) which has been adapted in Indonesian by Krisanti et al., (2017). This scale consists of four dimensions, including self-efficacy, hope, resilience, and optimism. The scale consists of 24 items, using a 6-point Likert type scale ranging from strongly disagree to strongly agree. Data collection in this study was by disseminating questionnaires and informed consent online through a Google Form form shared via Whatsapp to employees of institution X who were participants in this study.

RESULTS AND DISCUSSION

Performance measuring instruments (IWPQ) have a high reliability value for each dimension of their measurement. Reliability values for performance measurement tools for the dimensions of task performance (α=0.84), contextual performance (α=0.68), counterproductive work behavior (α=0.87). After the reliability test, then the performance measuring tool was tested for the validity of its construction with Confirmatory Factor Analysis (CFA) using the JASP application. Based on the results of the validity test with CFA, the performance variable was obtained in the fit model with GFI=0.995 (> 0.90) there were 7 items that were dropped.

The reliability values of digital stress measures are complexity (α=0.95), conflicts (α=0.93), insecurity (α=0.89), invasion (of privacy) α=0.91, overload (α=0.71), safety (α= 0.65), social environment (α=0.67), technical support (α=0.90), usefulness (α=0.95), unreliability (α=0.94). After the reliability test, the digital stress analyzer was then tested for the validity of its construction with Confirmatory Factor Analysis (CFA) using the JASP application. Digital stress was obtained by the fit model with GFI=0.927 (> 0.90) and there were 10 items that were dropped.

The reliability values of psychological capital measurement tools are self-efficacy (α=0.98), hope (α=0.98), resilience (α=0.87), optimism (α=0.95). After the reliability test, then the psychological capital measuring tool was tested for the validity of its construction with Confirmatory Factor Analysis (CFA) using the JASP application. Based on the results of the validity test with CFA, the performance variable was obtained in the fit model with

GFI=0.995 (> 0.90) there were 7 items that were dropped. Then the psychological capital, a fit model was obtained with GFI=0.945 (> 0.90) and there were 8 items that were dropped.

In the performance variable (IWPQ), the dimensions with the highest category are the contextual performance dimension (M= 4.271) and the task performance dimension (M= 3.908), then the lowest dimension is CWB (mean= 1.922). An overview of the performance research variables can be seen in Table 1.

Table 1. Performance Overview

Variables/Dimensions	Min	Max	Mean	SD
Task Performance	3	5	3.908	0.671
Contextual Performance	3.33	5	4.271	0.474
CWB	1	2.75	1.922	0.583

In the digital stress variables, the values (M=4,680) were the dimensions of overload, safety (M= 4,602), unreliability (M= 4,492), invasion (M= 4,335), complexity (M= 4,254), social environment (M= 4,198), usefulness (M= 3,727), technical support (M= 3,636), conflicts (M= 3,519) and insecurity (M=3,261). An overview of the variables of digital stress research can be seen in Table 2.

Table 2. Digital Stress Snapshot

Variables/ Dimensions	Min	Max	Mean	SD
Complexity	1.00	6.40	4.254	1.848
Conflicts	1.00	5.60	3.519	1.380
Insecurity	1.00	5.00	3.261	1.173
Invasion	1.00	6.20	4.335	1.315
Overload	1.00	6.33	4.680	1.393
Safety	1.00	6.50	4.602	1.497
Social Environment	1.00	6.33	4.198	1.262
Technical Support	2.33	7.00	3.636	1.308
Usefulness	1.60	7.00	3.727	1.689
Unreliability	1.00	6.25	4.492	1.692

In the psychological capital variables, the dimensions of optimism (M=4,402), self-efficacy (M=4,287), hope (M=4,199) and resilience (M=4,199). An overview of psychological capital research variables can be seen in Table 3.

Table 3. Overview of Psychological Capital

Variables/Dimensions	Min	Max	Mean	SD
Self-Efficacy	1	6	4.287	0.867
Hope	1	6	4.199	1.187
Resilience	1	6	4.199	1.187
Optimism	1	5.75	4.402	1.242

The results of the correlation test in this study found that there was a significant correlation between digital stress and performance with a value of 0.000 ($p<0.05$), which can be interpreted that digital stress is negatively related to performance. When there is an increase in digital stress, there will be a possibility of a decrease in performance.

The results of the digital stress and performance test with psychological capital moderation showed significant results, from the results of the correlation test ($t= 2.194$, $p<0.05$), it can be concluded that the psychological capital variable plays a moderation role in the relationship between digital stress and performance. The higher the psychological capital value, the lower the relationship between digital stress and performance. then it can be concluded that H_1 is accepted. The results of the moderation test can be seen in Figure 1.

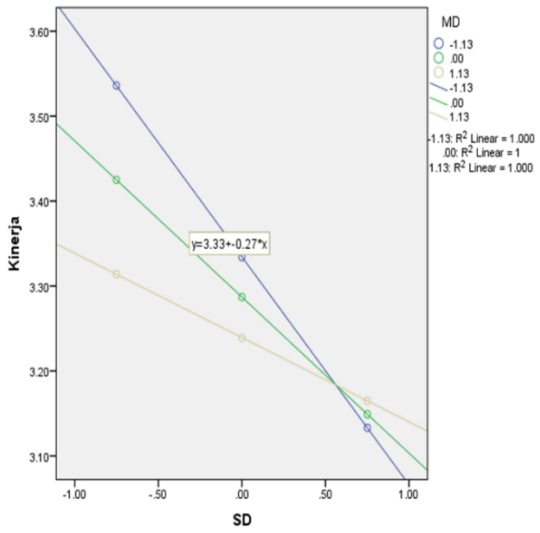

Figure 1. Moderation Test Results

This research has several limitations that need to be considered. First, the use of purposive sampling techniques may limit the generalization of the results of this study to a wider population. Second, this study was only conducted in one institution, so the results may not be applicable to other contexts. Third, this study is cross-sectional, so it cannot determine the quality relationship between the variables studied. Therefore, further research is recommended to use more diverse methods and a wider population to obtain more comprehensive results.

CONCLUSION

This study shows that digital stress correlates with performance, with psychological capital acting as a moderator in the relationship. Although digital technology is increasingly important in the work environment, excessive use can have a negative impact on performance, especially for employees of Institution X. High work stress due to the use of Information and Communication Technology (ICT) can reduce productivity, well-being, and overall organizational performance. For institution X, it is critical to design policies that support healthy and measurable use of ICT. Regulations like this can include digital

literacy training, digital workload management, and programs to increase employees' psychological capital. Institution X can use this strategy to maximize the utilization of technology and reduce the negative impact on employee performance and well-being.

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