
Work Stress in the Creative Industry: The Relationship Between Technostress, Burnout and Employee Innovation

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ABSTRACT

The creative industry is highly dependent on digital technology, making workers vulnerable to technostress, which can lead to burnout and decreased innovation. This study aims to analyze the relationship between technostress, burnout, and employee innovation in the creative industry. This study uses a quantitative approach with an explanatory survey design, involving 300 respondents working in various creative sectors such as advertising, graphic design, digital marketing, animation, and film. Data were collected through a structured online questionnaire and analyzed using Structural Equation Modeling (SEM). The results show that technostress has a significant positive effect on burnout, while burnout has a negative impact on employee innovation. In addition, technostress also has a direct negative effect on employee innovation. Further mediation tests reveal that burnout partially mediates the relationship between technostress and employee innovation. These findings highlight the dual role of technostress as a direct and indirect determinant of employee innovation through burnout. Theoretically, this study contributes to the expansion of the Job Demands–Resources (JD-R) Model in the context of digital work. Practically, it suggests that organizations in the creative industry adopt strategies to reduce technostress and effectively manage burnout in order to maintain and enhance employees' innovative capacity.

Keyword: Technostress; Burnout; Employee innovation; Creative industry; Job Demands–Resources (JD-R)

INTRODUCTION

The creative industry is one of the sectors experiencing rapid growth in the global economy and contributing significantly to innovation, job creation, and national income (Syahbudi & Ma, 2021). The UNCTAD report (2024) notes that the creative economy continues to increase its contribution to global Gross Domestic Product (GDP), in line with the increasing demand for products and services based on creativity, cultural value, and digital technology. In Indonesia, the creative economy contributes more than 7% to the national GDP, with subsectors ranging from graphic design, film, music, advertising,



to digital content. Unlike other industries that are more dependent on physical resources, the sustainability of the creative industry is largely determined by the capacity of its human resources to generate new ideas and innovations (Riswanto et al., 2024).

However, behind this promising growth, the creative industry faces serious challenges related to increasingly complex work stress in the digital age. Creative workers are required to always be connected to digital devices, respond to rapid market dynamics, and adapt to ever-changing technological developments (Handyani, 2024). These conditions have the potential to cause psychological pressure, particularly technostress, which not only affects employees' mental health but also influences their motivation, work engagement, and innovative capacity. If left unchecked, this phenomenon could hinder the creative industry's contribution to economic development, given that innovation is at the heart of this sector's competitive advantage (Mardikaningsih & Darmawan 2023). Thus, understanding the relationship between technostress, burnout, and employee innovation is crucial to ensuring the sustainability and competitiveness of the creative industry amid the increasingly intense digital transformation.

Work stress in the creative industry arises from the complexity of tasks, pressure to continuously generate new ideas, and tight deadlines (Zainal & Ashar, 2023). Creative workers are required to innovate continuously in a highly competitive market, making them prone to excessive psychological pressure (Shaddiq, 2025). This type of work environment has the potential to trigger stress, which, if not managed properly, can develop into more serious conditions such as technostress and burnout (Ediati & Diponegoro, 2020). In fact, although a certain level of stress can stimulate creativity by encouraging the search for new solutions, excessive stress actually weakens innovative abilities. Thus, there is a paradox in the relationship between stress and innovation, which needs to be understood more deeply in order to maintain the competitiveness of the creative sector.

One of the most dominant sources of stress in the era of digitalization is technostress, which is stress experienced by individuals due to difficulties in adapting to information and communication technology (Maharani et al., 2023). Digital transformation in the creative industry has made design software, online collaboration applications, social media, and artificial intelligence integral elements of daily activities (Aksenta et al., 2023). While this technology supports efficiency and expands opportunities for creativity, it also poses new challenges in the form of information overload, constant connectivity, and the need to constantly adapt to rapidly changing systems. A study by Hapsari & Nurtjahjanti, 2022 shows that technostress can trigger digital fatigue, reduce job satisfaction, and increase psychological pressure. In the context of creative workers who are highly dependent on digital devices, technostress is a serious risk factor that has the potential to cause burnout and hinder innovation (Lestari et al., 2023).

Burnout itself is one of the most significant effects of chronic work stress (Situmorang & Taringan, 2025). Ulfa & Aprianti, 2021 define burnout as a psychological syndrome characterized by emotional exhaustion, depersonalization, and decreased personal accomplishment. In the creative workplace, burnout often arises due to high cognitive and emotional demands in the process of idea creation, responses to repeated revisions, and pressure from dynamic market trends (Fauziyah, 2024). It is not uncommon for employees in the creative industry to work in intense project cycles with tight deadlines, which require high concentration, adaptability, and speed of execution. These conditions increase the risk of prolonged fatigue, which can lead to burnout.

If not addressed seriously, burnout can reduce employee engagement, decrease productivity, and increase turnover intention (Septiani & Setiyati, 2025). Furthermore, burnout not only affects affective aspects such as motivation and job satisfaction, but also directly erodes employees' cognitive abilities to think creatively, innovate, and take risks in generating new ideas. However, the ability to innovate is the main foundation of success in the creative industry. In other words, burnout is not just an individual problem, but a strategic organizational issue, as it directly impacts a company's competitiveness, sustainability, and innovative capacity. Therefore, understanding the factors that cause burnout and the mechanisms by which burnout affects innovation is crucial in efforts to maintain the psychological health of employees while maintaining the competitiveness of the creative industry in the digital age. Innovation is at the heart of the creative industry's sustainability. It encompasses not only the creation of new products or services, but also the ability to find original solutions to complex problems and create added value from fresh ideas. However, a number of studies show that uncontrolled work stress can weaken an individual's innovative capacity (Sastradinata, 2024). On the one hand, stress in certain amounts can act as a trigger for creativity, but in excessive amounts it becomes an obstacle. This ambivalent relationship underscores the need for a deeper examination of the connection between work stress, technostress, burnout, and innovation, especially in the context of creative work that is heavily influenced by digitalization (Suwardi et al., 2024).

Although the relationship between stress, burnout, and innovation has been extensively researched, most studies still focus on the manufacturing, health, and education sectors (Rizky, 2022). Studies that specifically highlight the creative industry with its unique characteristics of high dependence on digital technology and continuous demands for innovation are still limited. Additionally, previous research has tended to examine the relationships between variables in isolation, such as only between work-related stress and burnout, or burnout and innovation. Research that attempts to examine the simultaneous relationship between technostress, burnout, and employee innovation in the context of the creative industry is still rare. This research gap reinforces the urgency of conducting a more comprehensive study on how digital stress affects the psychological well-being and innovative behavior of creative workers.

Based on these conditions, this study aims to analyze the relationship between technostress, burnout, and employee innovation in the creative industry. Specifically, this study seeks to examine the direct effect of technostress on burnout, analyze the relationship between burnout and innovation, and identify the mediating role of burnout in the relationship between technostress and innovation. With this approach, this study is expected to contribute theoretically to the literature on stress management and innovation, as well as offer practical implications for managers and creative industry players in designing stress management strategies while maintaining innovation sustainability in the digital era.

METHOD

This study uses a quantitative approach with a survey method to examine the relationship between technostress and burnout on employee innovation among employees in the creative industry. The research design used is explanatory research with the aim of explaining the causal relationship between variables, including testing the role of burnout as a mediating variable. Data were collected cross-sectionally, at a specific point in time, through the distribution of structured online questionnaires. The research population

consisted of employees working in the creative industry sector, such as advertising agencies, graphic design, digital marketing, film, and gaming, whose activities are highly dependent on the use of digital technology. The sample was determined using purposive sampling, namely full-time employees who intensively use digital devices and have at least six months of work experience. The sample size was determined by considering Structural Equation Modeling (SEM) analysis, targeting a minimum of 250 respondents to meet the sample adequacy requirements for model testing.

The research instrument consisted of four parts, namely respondent demographic data, a technostress scale adapted from Tarafdar et al. (2007), a burnout scale adapted from the Maslach Burnout Inventory, and an employee innovation scale adapted from Janssen (2000). Each statement item used a 1–5 Likert scale to measure the respondent's level of agreement. The collected data were analyzed using descriptive statistics and Structural Equation Modeling (SEM) with the help of AMOS or SmartPLS software to test the direct and mediating relationships between variables. Prior to analysis, construct validity was tested through Confirmatory Factor Analysis (CFA) and reliability was tested using Cronbach's Alpha and Composite Reliability to ensure the consistency of the instrument. This study paid attention to ethical aspects, in which respondent participation was voluntary, data confidentiality was maintained, and consent for participation was obtained prior to questionnaire completion.

Based on the Job Demands-Resources (JD-R) theory and literature review, the research hypotheses are formulated as follows:

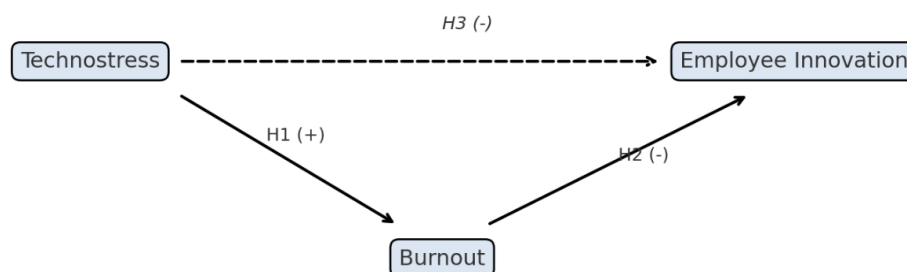
H1: Technostress has a positive effect on employee burnout.

H2: Burnout has a negative effect on employee innovation.

H3: Technostress has a negative effect on employee innovation.

H4: Burnout mediates the relationship between technostress and employee innovation. This research framework illustrates that technostress can increase burnout, which ultimately affects the decline in employees' ability to innovate.

Figure 1. Research Conceptual Framework: The Relationship between Technostress, Burnout, and Employee Innovation



RESULT AND DISCUSSION

1. Respondent Characteristics

This study involved 300 respondents working in the creative industry sector, covering the advertising, graphic design, digital marketing, animation, game development, and film

and television subsectors. The results of the demographic description of the respondents are shown in the table.

Table 1. Respondent Characteristics (n = 300)

Characteris	Category	Frequency Percentage	(%)
Gender	Male	135	45,0
	Female	165	55,0
Age	< 25 Years old	42	14,0
	25–35 Years old	195	65,0
	> 35 Years old	63	21,0
Education	Diploma	54	18,0
	S1	192	64,0
	S2/S3	54	18,0
Years of Experience	< 2 Years old	60	20,0
	2–5 Years old	168	56,0
	> 5 Years old	72	24,0
Hours of Digital Work Per-Day	< 4 Clock	24	8,0
	4–6 Clock	60	20,0
	> 6 Clock	216	72,0

The majority of respondents were in the productive age group (25–35 years old), had a bachelor's degree, had been working for 2–5 years, and worked with digital devices for more than 6 hours per day. This confirms that the research sample is relevant to the issue of technostress, as the use of digital technology is very intensive.

2. Descriptive Statistics of Research Variables

Descriptive statistics were used to describe the respondents' tendencies in answering the research variable items. The results are presented in Table 2.

Table 2. Descriptive Statistics of Research Variables

Variable	Mean	SD	Theoretical Range	Actual Range	Category
Technostress	3.71	0.68	1–5	2.10–4.95	High
Burnout	3.45	0.72	1–5	1.95–4.80	Moderate–High
Employee Innovation	3.12	0.65	1–5	2.00–4.80	Moderate

Based on the results of descriptive analysis, the technostress variable obtained the highest average score ($M = 3.71$), suggesting that most respondents experience considerable stress due to the use of technology in their work. This stress is primarily related to the demands of completing tasks quickly, adapting to dynamic changes in work systems, and the high intensity of digital device use. Meanwhile, the burnout variable was in the moderate-high category with an average score ($M = 3.45$). This indicates that symptoms of emotional exhaustion, decreased motivation, and boredom with work were quite evident among respondents, although they had not yet reached a severe level. The

employee innovation variable obtained a lower average score ($M = 3.12$), indicating that employees' innovative behavior in creating or developing new ideas is still not optimal. Although it is in the moderate category, this relatively low level of innovation shows that there is potential that needs to be improved so that the creative industry can be more competitive and adaptive to changes in the digital work environment.

3. Validity and Reliability Testing

Confirmatory Factor Analysis (CFA) shows that all indicators have loadings > 0.60 , AVE values above 0.50, and CR and Cronbach's Alpha above 0.70. The summary results are shown in Table 3.

Table 3. Results of Validity and Reliability Test

Variable	Number Items	of Loading Range	AVE	CR	Cronbach's Alpha	Category
Technostress	15	0.61–0.82	0.56	0.89	0.87	Valid & Reliable
Burnout	12	0.63–0.85	0.59	0.91	0.90	Valid & Reliable
Employee Innovation	9	0.65–0.81	0.58	0.88	0.86	Valid & Reliable

In addition, the measurement model meets the model fit criteria: $\chi^2/df = 2.01$; CFI = 0.93; TLI = 0.91; RMSEA = 0.06; SRMR = 0.05. Thus, the instrument can be used for further structural analysis.

4. Hypothesis Testing with SEM

Structural model testing was conducted using Structural Equation Modeling (SEM). The results of the path analysis are shown in the table.

Table 4. Hypothesis Testing Results

Hypothesis Path	Coefficient (β)	p-value	Result
H1 Technostress $\rightarrow$ Burnout	0.58	< 0.001	Accepted
H2 Burnout $\rightarrow$ Employee Innovation	-0.32	0.004	Accepted
H3 Technostress $\rightarrow$ Employee Innovation	-0.27	0.009	Accepted
H4 Technostress $\rightarrow$ Burnout $\rightarrow$ Employee Innovation (mediation)	-0.19	0.001*	Accepted

Note: *Mediation effect tested with bootstrapping of 5,000 samples; 95% CI does not cross zero.

The results of this study indicate that technostress has a significant effect on burnout, with a β coefficient of 0.58, indicating a fairly strong relationship. The higher the level of stress caused by technology, the greater the likelihood of employees experiencing emotional exhaustion, depersonalization, and decreased work motivation. This condition is in line with the findings of Sabilla & Wartini, (2025) and Haryadi et al. (2025), which

confirm that techno-overload, techno-complexity, and techno-invasion are the main sources of work fatigue in a digital environment. In the context of the creative industry, these results are even more relevant because workers are required to continuously produce new work in a short time, often under tight deadlines. Rapid adaptation to technology, the simultaneous use of various digital applications, and repeated software updates accelerate burnout, especially when work systems change suddenly and targets must be pursued aggressively.

This study also found that burnout has a negative impact on employee innovation, with a coefficient of $\beta = -0.32$. Employees who experience burnout tend to lose mental energy and motivation to create or implement new ideas. This is consistent with the study by Schaufeli and Bakker (2004) in the Job Demands–Resources (JD-R) theory framework, which emphasizes that high job demands without adequate resource support will reduce work engagement and weaken innovative behavior. Hakanen et al. (2008) also confirmed that burnout is negatively related to creativity and innovation in the workplace. Thus, the results of this study reinforce the importance of psychological well-being as a key requirement for innovation, especially in creative industries that are highly dependent on fresh ideas and novelty.

In addition to burnout, technostress also directly suppresses innovation, with a coefficient of $\beta = -0.27$. Technological pressure can reduce the cognitive and affective space necessary for creative processes, even before employees reach the point of exhaustion. The complexity of digital systems, the flood of notifications, and the fragmentation of workflows across multiple platforms often serve as real distractions for creative workers. These findings support the research of Ayyagari et al. (2011), which shows that technology-induced stress not only affects psychological health but also impairs cognitive functions, including creative thinking and problem-solving abilities. In other words, technostress not only drains psychological energy but also directly reduces employees' creative thinking capacity.

This study found that burnout mediates the relationship between technostress and employee innovation, with a statistically significant indirect effect of $\beta = -0.19$. These results indicate that part of the negative influence of technostress on innovation occurs through psychological pathways in the form of burnout. This finding is in line with the study by Califf et al. (2015), which states that technostress affects work outcomes mainly through psychological mechanisms such as fatigue and decreased engagement. Thus, burnout can be seen as an important mechanism that explains how technological pressure weakens employees' innovative capacity. This also reinforces the idea that technostress management is not sufficient at the technical or organizational level alone, but must also address the psychological aspects of employees.

Overall, this study makes an important contribution to theory and practice. From a theoretical perspective, this study expands our understanding of the JD-R model by showing that technostress is a new form of job demand that is relevant in the digital age. Just like traditional workloads, technostress has been shown to drain employees' psychological energy, trigger burnout, and reduce innovation. However, the findings regarding direct effects also add the perspective that the impact of technology is not solely psychological but also functional, related to employees' time constraints, focus, and cognitive capacity. This study also fills a gap in the literature by highlighting the context of the creative industry in Indonesia, which is relatively rarely studied compared to other sectors. This provides added value in the form of a more specific contextual understanding of the challenges of digitization in idea-based industries.

From a practical standpoint, this study provides an important message for managers and organizations in the creative industry. To maintain the innovative capacity of employees, companies need to develop effective strategies to reduce technostress and prevent burnout. Efforts that can be made include: providing ongoing digital training to reduce techno-complexity; redesigning digital workflows to be simpler and more efficient in order to reduce techno-overload; and implementing work policies that limit techno-invasion, for example by setting clear digital communication hours. In addition, companies also need to strengthen job resources by increasing supervisor support, creating a work climate that values ideas, and providing special time for creative experimentation. Employee wellness programs, such as digital detox, counseling, or mindfulness programs, can also help restore psychological energy and reduce the risk of burnout.

With these measures, organizations can not only maintain the psychological well-being of their employees, but also ensure that innovation continues to thrive amid the challenges of the digital age. Without adequate intervention, the creative industry risks losing its competitive edge, as innovation the heart of this industry can be stifled by excessive technological pressures.

CONCLUSIONS

This study concludes that technostress has a significant effect on burnout, and burnout has a negative effect on employee innovation. In addition, it was also found that technostress suppresses employee innovation directly, as well as indirectly through burnout as a partial mediator. Thus, technostress can be viewed as one of the main job demands in the context of digital work that not only affects psychological well-being but also the innovative capacity of employees. The theoretical implication of this study is to broaden the understanding of the application of the Job Demands–Resources (JD-R) theory in the digital context, particularly in linking technostress with innovative behavior through the mechanism of burnout. Meanwhile, the practical implications emphasize the importance of organizations in the creative industry to develop technology-based stress management strategies. This can be done through digital training, workflow redesign, organizational support, and employee welfare programs to reduce burnout. The limitations of this study are its cross-sectional design, which limits causal inference, and the use of self-reports, which may introduce methodological bias. Therefore, future studies are recommended to use longitudinal designs, multi-source data, and consider moderating factors such as organizational support or psychological capital. With these efforts, future research results are expected to provide a more in-depth and comprehensive understanding of the relationship between technostress, burnout, and employee innovation.

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