

**MANAJEMEN TEKNOLOGI: TINJAUAN PUSTAKA YANG SISTEMATIS**

**TECHNOSTRESS MANAGEMENT: A SYSTEMATIC LITERATURE REVIEW**

**Dillyan Anugrah Joko Saputro<sup>1</sup>, Nuri Herachwati<sup>2</sup>, Zuyyina Choirunnisa<sup>3</sup>**  
Human Resource Development, Sekolah Pascasarjana, Universitas Airlangga<sup>1,2,3</sup>  
dillyananugrah@gmail.com

**ABSTRACT**

The systematic literature review explores technostress within occupational settings, particularly in economic and business settings. Stress, described as mental strain impacting individuals throughout their lives, particularly highlights occupational stress and its severe consequences—physical/mental health issues, decreased job satisfaction, higher turnover, and absenteeism rates. On the other hand, the review focuses on IT satisfaction's impact on behavioral outcomes, emphasizing its underexplored link with job-related attitudes. The section details technostress causes, types, and their impact on productivity and exhaustion. It outlines various studies, categorizes and evaluates technostress levels and types within the context of personal and environmental factors. Additionally, it delves into factors influencing work-home balance. Finally, it discusses technology's dual impact—enabling flexibility but leading to longer work hours, constant contact, and reduced detachment from work. The subsequent sections plan to focus on the methods, results, and discussions from recent studies spanning the last five years to analyze the antecedents of technostress management.

**Keywords:** Technostress, Technostress Management, Technostressors.

**ABSTRAK**

*Tinjauan literatur sistematis mengeksplorasi technostress dalam lingkungan kerja, terutama dalam lingkungan ekonomi dan bisnis. Stres, yang digambarkan sebagai tekanan mental yang memengaruhi individu sepanjang hidup mereka, secara khusus menyoroti stres kerja dan konsekuensinya yang parah—masalah kesehatan fisik/mental, penurunan kepuasan kerja, tingkat pergantian yang lebih tinggi, dan tingkat ketidakhadiran. Di sisi lain, tinjauan ini berfokus pada dampak kepuasan TI terhadap hasil perilaku, dengan menekankan kaitannya yang kurang dieksplorasi dengan sikap terkait pekerjaan. Bagian ini merinci penyebab, jenis, dan dampak technostress pada produktivitas dan kelelahan. Ini menguraikan berbagai studi, mengkategorikan, dan mengevaluasi tingkat dan jenis technostress dalam konteks faktor pribadi dan lingkungan. Selain itu, tinjauan ini mendalami faktor-faktor yang memengaruhi keseimbangan kerja-rumah. Akhirnya, dibahas dampak ganda teknologi—memungkinkan fleksibilitas tetapi menyebabkan jam kerja yang lebih panjang, kontak terus-menerus, dan pengurangan pelepasan dari pekerjaan. Bagian selanjutnya berencana untuk fokus pada metode, hasil, dan diskusi dari studi terbaru selama lima tahun terakhir untuk menganalisis faktor-faktor awal dalam manajemen technostress.*

**Kata Kunci:** Technostress, Manajemen Technostress, Technostressor.

**INTRODUCTION**

Stress refers to the mental strain and pressure that potentially impacts individuals throughout their lives (Li & Wang, 2022; Tarafdar & Pullins, 2014). Occupational stress, as outlined by Li and Wang (2022) arises when employees face overwhelming pressures that challenge their ability to manage their roles. The repercussions of stress can be severe, leading to both physical and mental health issues, decreased job satisfaction, lowered motivation, and consequently, higher turnover and

absenteeism rates (Christ-Brendemühl & Schaarschmidt, 2020; Selimović et al., 2021; Torres, 2021). This underlines the costly impact occupational stress can have on employers, emphasizing the need for organizations to focus more on prevention strategies.

Research within information systems (IS) has extensively explored IT satisfaction, representing the overall emotional perception of using IT, as evidenced by several previous studies (Christ-Brendemühl & Schaarschmidt, 2020; Selimović et al., 2021; Torres, 2021). These studies predominantly concentrate

on the impact of IT satisfaction on individual behaviors like decision-making quality, task productivity, job performance, and job commitment, with limited consideration given to how employees' attitudes toward IT influence their job-related attitudes, aside from a few exceptions (Selimović et al., 2021). This focus on linking IT satisfaction directly with behavioral outcomes might overlook potential cognitive and attitudinal changes induced by IT in the workplace (Saleem et al., 2021; Tandon et al., 2021) and miss the chance to explore the psychological mechanisms behind IT-driven transformations. Hence, examining the effects of IT satisfaction on job-related attitudes can complement existing behavioral studies on IT effects.

To fill this gap, this study aimed to investigate how employees' satisfaction with workplace IT influences their job satisfaction—an essential workplace outcome associated with IT use. Unlike prior studies that have explored the relationship between IT-related attitudes and overall job satisfaction, this study specifically focused on exploring the mechanism and circumstances surrounding this particular IT-related attitude.

**RESEARCH METHOD**

The present study focuses on library research by reviewing literature related to technostress management from

the past five years (2020-2024). To yield comprehensive analyses, the study employs content analysis from the collected journal articles, focusing on antecedences of technostress management. The journal articles were selected from the Science Direct utilizing keywords such as 'technostress', 'technostress management', 'strain', 'stressors', and 'antecedents of technostress.' In particular, Science Direct was selected due to its affiliation with the Scopus library, ensuring the credibility of the articles retrieved. Initially, keywords 'technostress', 'technostress management', 'strain', 'stressors', and 'antecedents of technostress' were entered to the search engine of Science Direct with several filters such as the timeframe of 2020-2024, the types of articles including research articles and review articles, and the scope of articles focusing on business and economics. Then the search resulted in 131 articles. Each of the article was reviewed, then narrowed down into 24 articles specifically concentrating on research articles that employed quantitative and mixed-method approach. Further, articles published prior 2020 were incorporated to yield thorough analyses.

**RESULT AND DISCUSSION**

**Research Topics of Technostress in the Last Five Years (2024-2020)**

The following serves the research trend map of quantitative research focusing on technostress management from 2020-2024.

**Table 1.** Research Synthesis: Antecedents of Technostress Management (2020-2024)

References	Theory	Research Variables	Research Finding
Chandra et al (2020)	Technological spatial intrusion	employee’s accessibility, employee’s visibility, perceived usefulness, ICT-enabled employee innovation, control variables (age, gender, total work experience, experience with current employer, hours of ICT use per week	1. The results suggest that employee accessibility tends to foster positive relationships, whereas employee visibility tends to have negative associations with employee innovation. 2. These results also show that perceptions of 'ICT usefulness' act as a mediating factor between accessibility and innovation facilitated by ICT.

Christ-Brendemühl & Schaarschmidt (2020)	Job demands-resources (JD-R) model	Technostress (employees' perspective); Customers' perspective—customer satisfaction, customer delight; Demographic and control variables—age, gender, education, loyalty, frequency of eating out, payment, party size, invoice amount	<ol style="list-style-type: none"> <li>1. The results indicate that technology-induced job demands lead to FLE technostress, while optimism towards technology reduces the latter and buffers the effect of role ambiguity on technostress.</li> <li>2. The findings suggest that technological job requirements result in FLE technostress, but having a positive outlook towards technology diminishes this stress. Moreover, a positive attitude towards technology lessens the impact of uncertainty about roles on technostress.</li> <li>3. Technostress reduces both customer satisfaction and delight with the FLE.</li> <li>4. The findings also emphasize the challenge of effectively managing technology-induced job demands in organizational frontlines.</li> </ol>
Zhao et al. (2020)	Transactional theory of stress	Appraisal process of technostress (techno-overload, techno-invasion, techno-uncertainty, techno-complexity, techno-insecurity): challenge appraisal outcome, hindrance appraisal outcome, coping-process of technostress (problem focused-coping strategies, emotion-focused coping strategies, ICT-enabled productivity), control variables (age, gender, education, experience, task difficulty)	<ol style="list-style-type: none"> <li>1. Technostress creators may affect appraisal outcomes in inconsistent ways.</li> <li>2. The impact of challenge and hindrance appraisal outcomes on ICT-enabled productivity were mediated by problem- and emotion-focused coping strategies, respectively.</li> </ol>
Saleem et al. (2021)	Cognitive-behavioral theory (CBT)	Distal and proximal cause Excessive SNS use Cognitive preoccupation Negative consequences (task conflict, process conflict, relationship conflict—TPR conflicts)	<ol style="list-style-type: none"> <li>1. The results indicate that relationship conflict was not significantly associated with work performance.</li> <li>2. This contributes to reducing the harmful effects of social media by recognizing its causes and outcomes, considering categorization of conflicts related to SNS within work setting.</li> </ol>
Selimović et al. (2021)	Organizational support theory	Autonomy, relatedness, performance, well-being, intention	<ol style="list-style-type: none"> <li>1. As a psychological need, interpersonal relatedness has been demonstrated to significantly impact employees' performance and well-being in a digital work environment.</li> <li>2. Employees with positive expectations regarding performance and well-being are more inclined to endorse workplace digital transformation.</li> </ol>

			<p>3. In a digital workplace, employees' autonomy did not significantly impact their level of performance and well-being expectations.</p> <p>4. The relationship between employees' autonomy and their performance and well-being expectations appears to be more complex and may be moderated by various factors, including elements of self-determination theory.</p>
Tandon et al. (2021)	Stressor-strain-outcome framework (SSO)	Individual tendencies (exhibitionism and voyeurism); FoMO (fear of missing out); Psychological outcome (compulsive use of social media); Behavioral responses (work performance decrement and procrastination); Socio-demographic factors as control variables	Significant correlations are found between individual tendencies and FoMO, as well as its psychological and behavioral consequences.
Torres (2021)	Transactional theory of stress	<p>1. Technostress creators (techno-overload, techno-invasion, techno-complexity, techno-insecurity, techno-uncertainty)</p> <p>2. Technostress inhibitors (psychological: exhaustion and dissatisfaction); physiological: rapid heart beat &amp; hormonal changes)</p>	<p>1. The results confirm the validity of the construct and high reliability for the Technostress Creators Inventory; however, did not indicate high reliability on the Technostress Inhibitors Inventory.</p> <p>2. This study also demonstrates that the elements causing technostress remain consistent across various regions, but the suitability of various organizational practices in managing it differs.</p>
Yang et al. (2021)	Stimuli-Organism-response (S-O-R) framework	Portability, visual appeal, perceived utilitarian value (PUV), perceived hedonic value (PHV), interpersonal influence, urge to buy impulsively	<p>1. The results suggest that environmental stimuli notably affect how customers perceive value, including both utilitarian and hedonic values (PUV and PHV). Furthermore, customers' direct perception of hedonic value significantly influences their impulse buying behavior (IBB).</p> <p>2. Furthermore, the combined effect of perceived hedonic value and interpersonal influence significantly influences IBB.</p>
Zhang et al. (2021)	Transactional model of stress	Intervention (audience management strategies), stressor (online turbulence), strain (neglected unintended	The findings indicate that four types of audience management strategies have varying impacts on online turbulence, significantly affecting the heightened concern of unintentionally neglected

		audience concern, lurking), user personality (self-monitoring	audiences, particularly when users possess advanced self-monitoring abilities.
Tuan (2022)	Conservation of resources	<ol style="list-style-type: none"> <li>1. Core beliefs challenge</li> <li>2. Proactive coping</li> <li>3. Job insecurity</li> <li>4. Technostress</li> </ol>	<ol style="list-style-type: none"> <li>1. The core belief challenge experienced by hospitality employees showed a positive correlation with both positive reinterpretation and IT control.</li> <li>2. Promotion focus acted as an intermediary mechanism for these positive associations.</li> <li>3. The results of the study supported the idea that job insecurity plays a role as a moderator, reducing the positive effects of promotion focus on both positive reinterpretation and IT control.</li> <li>4. Technostress enhanced the positive effect of emphasizing promotions on positive reinterpretation but did not notably alter its correlation with controlling information technology.</li> <li>5. These findings contribute to a deeper comprehension of how core beliefs challenge and promotion focus contribute to proactive coping strategies for technostress. Furthermore, they offer practical suggestions for hospitality managers seeking to encourage proactive coping among employees dealing with technostress while working remotely with digital technologies during a crisis.</li> </ol>
Shen & Kuang (2022)	Conservation of resources theory (COR)	Technostress, knowledge hiding, work exhaustion, job autonomy.	Through structural equation modeling, the findings show that technostress leads to an increase in employees' tendency to hide knowledge. Additionally, work exhaustion plays a partial mediating role between technostress and knowledge hiding. However, job autonomy moderates the connection between technostress and work exhaustion only when the aspect of techno-insecurity, the fourth factor of technostress, is not considered.
Li & Wang (2022)	Multidimensional research model: challenge-hindrane stressor framework and job demands-resources (JD-R) model	CO-OCB; Time pressure; Learning demand; Job involvement; Public service motivation;	<ol style="list-style-type: none"> <li>1. The findings indicate that among employees with higher public service motivation (PSM), both time pressure and learning demand show a positive association with Citizenship Organizational Behavior (CO-OCB) through the mediating role of job involvement.</li> <li>2. Nevertheless, among employees with lower levels of public service motivation, the indirect positive relationship with CO-OCB via job involvement was significant only for learning demand, not for time pressure.</li> </ol>

Taser et al. (2022)	Job-demands-resources (JD-R) theory	Technostress, loneliness, e-work life, flow	<ol style="list-style-type: none"> <li>1. Remote e-working experience brought a substantial and beneficial impact on employees' flow levels.</li> <li>2. Technostress and loneliness sequentially mediated the connection between remote e-working and flow.</li> <li>3. The findings enhance remote e-working research by examining the effects of such experiences and identifying two significant stressors that lead to reduced flow levels at work, namely technostress and loneliness.</li> </ol>
Gabbiadini et al. (2023)	Organizational support theory	Technostress, technical support, digital technology usage, seniority, perceived ease of use, perceived usefulness, intentions to use in the future	<ol style="list-style-type: none"> <li>1. The frequency of using distance teaching technologies increased technostress, which subsequently had a negative impact on the perception of ease of use.</li> <li>2. This perception influenced intentions to adopt distance learning tools after the pandemic, both directly and indirectly through perceived usefulness.</li> <li>3. Additionally, organizational support was found to reduce technostress.</li> </ol>
Loh et al. (2023)	Multi-dimensional research model comprising of the Protection Motivation Theory, Transactional Theory of Stress, and Status Quo Bias	Perceived vulnerability, perceived severity, self-efficacy, continuance intention, work productivity, inertia, technostress	<ol style="list-style-type: none"> <li>1. Perceived vulnerability and perceived severity did not significantly impact the intention to continue working from home.</li> <li>2. Self-efficacy in managing work tasks remotely was found to enhance work productivity.</li> <li>3. Conversely, technostress was identified as a barrier to both work productivity and the intention to continue working from home.</li> <li>4. Overall, the insights gathered from employees regarding WFH are highly valuable to organizational stakeholders, as companies with effective WFH arrangements gain a significant competitive edge in attracting and retaining employees.</li> </ol>
Si et al. (2023)	Transactional theory of stress and coping	Excessive ESM (enterprise social media) usage, techno-overload, technology-family conflict, EMS fatigue, employee creativity	<ol style="list-style-type: none"> <li>1. Excessive use of ESM is significantly linked to employees' perceptions of techno-overload and technology-family conflict, which contribute to ESM fatigue.</li> <li>2. ESM fatigue is negatively associated with employee creativity.</li> </ol>
Yu et al. (2023)	Transactional theory of stress	Technostressors (environmental demands: perceived congruent ICT-mediated overload, perceived incongruent ICT-mediated overload)	<ol style="list-style-type: none"> <li>1. Congruent information overload leads to challenge appraisal, which subsequently promotes innovative and routine ICT use, thereby enhancing productivity.</li> <li>2. On the other hand, incongruent information overload and interruption overload trigger hindrance appraisal,</li> </ol>

			<p>resulting in avoidant ICT use and reduced productivity.</p> <p>3. This research advances the study of ICT-mediated overload by elucidating the nature of various overload types and uncovering the mechanisms through which they affect individual productivity.</p>
Zhu et al. (2023)	Challenge-hindrane stressor model and coping theory	AIS (accounting information system) characteristics, technostress appraisals, job burnout.	1. Various characteristics of AIS are linked to technostressor appraisals, which in turn trigger both proactive and reactive coping strategies. These coping responses subsequently impact job burnout.
Chuang et al. (2024)	Job demands-resources (JD-R) model theory	Information timeliness, information accuracy, work-family conflict, loneliness, well-being	<ol style="list-style-type: none"> <li>1. Information accuracy is negatively linked to work-family conflict.</li> <li>2. Work-family conflict mediates the association between information accuracy and well-being.</li> <li>3. Information timeliness weakens the link between information accuracy and work-family conflict and is also negatively associated with loneliness.</li> <li>4. Loneliness mediates the connection between information timeliness and well-being.</li> <li>5. Information accuracy strengthens the relationship between information timeliness and loneliness.</li> <li>6. There was no observed impact of information on family-work conflict.</li> <li>7. The findings suggest that organizations providing precise and timely communication to employees can alleviate work-family conflict and loneliness, thus enhancing employees' well-being in remote work setups.</li> </ol>
Gao & Zhao (2024)	Transactional theory of stress and coping	information overload, communication overload, social overload, emotion exhaustion, knowledge hiding, employee proactive innovation behavior, employee reactive innovation behavior	<ol style="list-style-type: none"> <li>1. The findings of Study 1 indicate that feeling emotionally exhausted and hiding knowledge act as links between using too much social media (like getting too much information, talking too much, or spending too much time on social media) and how employees come up with new ideas or solve problems at work.</li> <li>2. The findings of Study 2 matched Study 1, except they did not find strong connections between talking too much on social media and feeling emotionally exhausted, or between hiding knowledge and coming up with new ideas at work. This might be because of the COVID-19 pandemic.</li> </ol>

			<ol style="list-style-type: none"> <li>3. Study 2 also showed that being good with digital stuff can change these connections.</li> <li>4. This study unveiled the downsides of using social media too much, looks at social media overload in a new way, and gives more evidence about how employees come up with new ideas or solve problems at work.</li> </ol>
Khedhaouria et al. (2024)	Transactional theory of stress	Technostressors, strain, individual differences (age, gender, education, work experience, marital status, parental status), emotional social support, work satisfaction	<ol style="list-style-type: none"> <li>1. Technostress increased the strain experienced by ICT users, leading to decreased job satisfaction.</li> <li>2. Emotional social support (ESS) alleviated both the direct impact of technostress on strain and its indirect impact on job satisfaction.</li> <li>3. These findings underscore the potential benefits of ESS in remote work settings.</li> </ol>
Scholze & Hecker (2024)	Job demands-resources (JD-R) model theory	Job demands, job resources, strain (exhaustion and complaints), motivation (dissociation and binding), organizational implications	<ol style="list-style-type: none"> <li>1. The findings validate the comprehensive nature of the Job Demands-Resources model in examining both the positive and negative impacts of digitization within a specific work environment and categorizing them systematically.</li> <li>2. This study provides insights for shaping future workplace designs and organizational strategies to leverage the benefits of digitization while addressing the psychological stress experienced by employees.</li> </ol>
Shi et al. (2024)	Enterprise social media (ESM)	Five classic technostressors: Techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty; challenge-hindrane appraisals; challenge-hindrane outcomes	<ol style="list-style-type: none"> <li>1. The presence, work connectivity, and visibility of Enterprise Social Media (ESM) encourage both regular and innovative use among hospitality employees by facilitating the assessment of technostress related to challenges. However, factors like role conflict and emotional interruptions via ESM have a negative effect on employees' regular use due to increased hindrance technostress appraisal.</li> <li>2. Management support can help alleviate the adverse effects caused by ESM-related technostressors.</li> </ol>
Ye & Chen (2024)	Job demands-resources (JD-R) model theory	Job demands, alienation, motivation, work engagement	<ol style="list-style-type: none"> <li>1. Job demands, such as service recovery awareness and digital competence, along with job resources, including job support, perceived psychological empowerment, and training, significantly impact employee alienation and motivation.</li> <li>2. Alienation and motivation, in turn, significantly influence work engagement and fully mediate the relationships</li> </ol>



			between job characteristics and work engagement.
--	--	--	--

### **Technostress Management Theory Building**

To examine the antecedent variables of technostress management in occupational settings, a review approach of theories are used to explain the emergence of technostress variables. According to Table 1, 10 theories are identified to explain the antecedents of technostress management. They include technological spatial intrusion (TSI), job demands-resources ( ) model, transactional theory of stress, cognitive-behavioral theory, organizational support theory, stressor-strain-outcome (SSO) framework, stimuli-organism-response (SOR) framework, conservation of resources (COR) theory, challenge-hindrane stressor framework, and multidimensional research models.

1. **Technological spatial intrusion (TSI)**  
Technological Spatial Intrusion (TSI) refers to the concept that technology, especially communication tools like smartphones and email, can intrude into personal and professional spaces that may affect an employee's innovation performance (Chandra et al., 2020). This intrusion often blurs the boundaries between work and personal life, leading to issues such as work-life balance disruptions and increased stress. For instance, constant connectivity can result in employees feeling the need to respond to work-related communications during personal time, which can lead to burnout and decreased job satisfaction. TSI impacts to an employee's innovation performance may be influenced by the way the employee interprets and reacts to the experienced intrusion (Chandra et al., 2020). It can be seen from two dimensions: employee accessibility and employee visibility (Chandra et al., 2020).

2. **Job demands-resources (JD-R) model**  
The JD-R model suggests that job demands and resources may influence employees' well-being and performance (Christ-Brendemühl & Schaarschmidt, 2020; Chuang et al., 2024; Scholze & Hecker, 2024; Taser, Aydin, Ozer, et al., 2022; Ye & Chen, 2024). Information and communication technology (ICT) has dual nature that may become both a resource and a demand. It may provide access to information and efficiency on one hand; however, it could heighten productivity that may trigger stress levels (Chuang et al., 2024). To manage technostress, organizations can focus on increasing job resources related to technology, such as providing training and support for using digital tools effectively (Taser, Aydin, Ozer, et al., 2022). Additionally, reducing job demands, such as excessive information overload or constant connectivity expectations, can help alleviate technostress (Christ-Brendemühl & Schaarschmidt, 2020; Li & Wang, 2022; Scholze & Hecker, 2024).
3. **Transactional theory of stress and coping**  
This model suggests that stress results from a transaction between an individual and his environment (Yu et al., 2023a; Zhao et al., 2020). In other words, it posits that psychological stress arises when individuals believe that the demands they face surpass their available resources (Torres, 2021; Zhao et al., 2020). Organizations can help employees manage technostress by providing coping resources (Gao & Zhao, 2024; Torres, 2021), such as stress management training, mindfulness programs, or access to counseling services. Additionally,

- fostering a supportive work environment where employees feel comfortable seeking help and sharing their concerns can assist in managing technostress (Gao & Zhao, 2024; Zhao et al., 2020).
4. **Cognitive-behavioral model (CBM)**  
The cognitive-behavioral model (CBM) addresses the role of problematic internet usage that could trigger cognitive and behavioral responses that may cause negative outcomes in the user's both personal and professional life (Saleem et al., 2021). According to this model, individuals' perceptions of events influence their emotional and behavioral responses. It suggests that distorted or maladaptive thoughts contribute to psychological distress and mental health disorders. Central to CBM is the concept of cognitive restructuring, which involves identifying and challenging irrational or negative thoughts to promote healthier emotional and behavioral outcomes (Saleem et al., 2021).
  5. **Organizational support theory**  
Organizational Support Theory proposes that perceived organizational support influences employee attitudes and behaviors (Gabbiadini et al., 2023; Goetz & Boehm, 2020; Selimović et al., 2021; Ye & Chen, 2024). To manage technostress, organizations can demonstrate support for employees by providing resources and policies that help them manage their technology use (Goetz & Boehm, 2020), such as flexible work arrangements, training programs, and wellness initiatives. By showing concern for employees' well-being and providing them with the necessary support, organizations can reduce technostress and improve overall job satisfaction (Gabbiadini et al., 2023).
  6. **Stressor-strain-outcome framework (SSO)**  
The Stressor-Strain-Outcome (SSO) framework is a model used to understand how stressors (external pressures or demands) lead to strains (internal psychological or physiological responses), which subsequently lead to outcomes (such as health issues, job performance, or well-being) (Homaid, 2022; Fu et al., 2020; Tandon et al., 2021; Wang et al., 2024). This framework helps identify the process through which stress impacts individuals and is useful for developing interventions to mitigate negative outcomes by addressing stressors or improving coping mechanisms (Wang et al., 2024).
  7. **Stimuli-organism-response framework (SOR)**  
The Stimuli-Organism-Response (SOR) framework originates from behavioral psychology and explains how external stimuli (S) influence an organism (O), leading to a response (R) (Yang et al., 2021). This model suggests that the organism's internal state mediates the relationship between stimuli and response (Yang et al., 2021). In marketing, for example, a stimulus such as an advertisement (S) affects a consumer's internal state (O), which then influences their purchase behavior (R).
  8. **Conservation of resources (COR) theory**  
Conservation of Resources (COR) theory suggests that individuals strive to obtain, retain, and protect their resources (e.g., time, energy, social support) (Tuan, 2022). Stress occurs when there is a threat of resource loss, actual resource loss, or lack of resource gain following an investment of resources. This theory emphasizes the

importance of resource management and highlights the impact of resource loss on stress and well-being (Shen & Kuang, 2022).

9. Challenge-hindrancel stressor framework

The Challenge-Hindrancel Stressor Framework differentiates between two types of stressors: challenge stressors and hindrance stressors. Challenge stressors are perceived as opportunities for growth and achievement (e.g., workload, time pressure), and they can have positive effects on motivation and performance (Shi et al., 2024b; Zhu et al., 2023). Hindrance stressors, on the other hand, are perceived as obstacles that hinder personal growth and achievement (e.g., organizational politics, role ambiguity), and they typically have negative effects on job satisfaction and performance (Shi et al., 2024b; Zhu et al., 2023).

10. Multidimensional research models

Multidimensional research models refer to frameworks that incorporate multiple dimensions or factors to study complex phenomena (Li & Wang, 2022; Loh et al., 2023). These models recognize that single-dimensional approaches are often insufficient to capture the full scope of an issue. For example, in organizational research, multidimensional models might consider factors like individual characteristics, job demands, social support, and organizational culture to understand employee well-being. These models aim to provide a more comprehensive understanding by considering various interacting elements.

**PENUTUP**  
**Kesimpulan**

Previous studies gathered from 2020 to 2024 shows that technostress, which is stress from using technology at work, is quite complex. Different studies looked at how it affects employees and discovered numerous things that may cause this stress worse, like how much access employees have to technology and how visible they are when using it. The studies also found that when employees consider technology as a resource, in which they can handle it, it could help reduce this stress. The previous studies also looked at how things like social media and changes in technology impact how employees feel at work. All these findings show that it is necessary for companies to come up with smart ways to help employees deal with technostress This might involve understanding how employees see technology, what motivates them, and the situation they are in at work to make things better for everyone. Future research is highly required, focusing on interdisciplinary approaches integrating psychology, organizational behavior, and technology studies to yield a holistic understanding of technostress and the development of effective interventions.

**DAFTAR PUSTAKA**

- Ali Homaid, A. (2022). Problematic social media use and associated consequences on academic performance decrement during Covid-19. *Addictive Behaviors*, 132(May), 107370. <https://doi.org/10.1016/j.addbeh.2022.107370>
- Chandra, S., Shirish, A., & Srivastava, S. C. (2020). Theorizing technological spatial intrusion for ICT enabled employee innovation: The mediating role of perceived usefulness. *Technological Forecasting and Social Change*, 161(August), 120320. <https://doi.org/10.1016/j.techfore.2020.120320>

- Christ-Brendemühl, S., & Schaarschmidt, M. (2020). The impact of service employees' technostress on customer satisfaction and delight: A dyadic analysis. *Journal of Business Research*, 117(January), 378–388. <https://doi.org/10.1016/j.jbusres.2020.06.021>
- Chuang, Y., Chiang, H., & Lin, A. (2024). *Computers in Human Behavior remote work settings*. 154(September 2023).
- Çoklar, A. N. (2011). *Technostress Levels of Social Network Users Based on ICTs in Turkey*. 23(2), 171–182.
- Fu, S., Li, H., Liu, Y., Pirkkalainen, H., & Salo, M. (2020). Social media overload, exhaustion, and use discontinuance: Examining the effects of information overload, system feature overload, and social overload. *Information Processing and Management*, 57(6), 102307. <https://doi.org/10.1016/j.ipm.2020.102307>
- Gabbiadini, A., Paganin, G., & Simbula, S. (2023). Teaching after the pandemic: The role of technostress and organizational support on intentions to adopt remote teaching technologies. *Acta Psychologica*, 236(January). <https://doi.org/10.1016/j.actpsy.2023.103936>
- Gao, S., & Zhao, X. (2024). *International Journal of Information Management Social media overload and proactive – reactive innovation behaviour : A TTSC framework perspective*. 75(October 2021).
- Goetz, T. M., & Boehm, S. A. (2020). Am I outdated? The role of strengths use support and friendship opportunities for coping with technological insecurity. *Computers in Human Behavior*, 107(May 2019), 106265. <https://doi.org/10.1016/j.chb.2020.106265>
- Khedhaouria, A., Montani, F., Jamal, A., & Hussain Shah, M. (2024). Consequences of technostress for users in remote (home) work contexts during a time of crisis: The buffering role of emotional social support. *Technological Forecasting and Social Change*, 199(December 2023), 123065. <https://doi.org/10.1016/j.techfore.2023.123065>
- Kreiner, G. E., & Hollensbe, E. C. (2006). *No Title*. 1–7.
- Li, Y., & Wang, F. (2022). Challenge stressors from using social media for work and change-oriented organizational citizenship behavior: Effects of public service motivation and job involvement. *Government Information Quarterly*, 39(4), 101741. <https://doi.org/10.1016/j.giq.2022.101741>
- Loh, X. M., Lee, V. H., Hew, J. J., Tan, G. W. H., & Ooi, K. B. (2023). The future is now but is it here to stay? Employees' perspective on working from home. *Journal of Business Research*, 167(October 2021). <https://doi.org/10.1016/j.jbusres.2023.114190>
- Marsh, E., Perez, E., & Spence, A. (2022). Computers in Human Behavior The digital workplace and its dark side : An integrative review. *Computers in Human Behavior*, 128, 107118. <https://doi.org/10.1016/j.chb.2021.107118>
- Nastjuk, I., Trang, S., Adam, M. T. P., Tarafdar, M., Nastjuk, I., Trang, S., & Adam, M. T. P. (2023). Integrating and Synthesising Technostress Research : A Meta-Analysis on Technostress Creators , Outcomes , and IS Usage Contexts Integrating and Synthesising Technostress Research : A Meta-Analysis on ABSTRACT. *European Journal of Information Systems*, 00(00), 1–22. <https://doi.org/10.1080/0960085X.2022.2154712>
- Pirkkalainen, H. P., Salo, M. S., Tarafdar, M. T., Makkonenmarkus, M.,

- Pirkkalainen, H., & Salo, M. (2019). Deliberate or Instinctive? Proactive and Reactive Coping for Technostress Deliberate or Instinctive? Proactive and Reactive Coping for Technostress. *Journal of Management Information Systems*, 36(4), 1179–1212. <https://doi.org/10.1080/07421222.2019.1661092>
- Saleem, S., Feng, Y., & Luqman, A. (2021). Excessive SNS use at work, technological conflicts and employee performance: A social-cognitive-behavioral perspective. *Technology in Society*, 65(January), 101584. <https://doi.org/10.1016/j.techsoc.2021.101584>
- Scholze, A., & Hecker, A. (2024). The job demands-resources model as a theoretical lens for the bright and dark side of digitization. *Computers in Human Behavior*, 155(October 2023), 108177. <https://doi.org/10.1016/j.chb.2024.108177>
- Selimović, J., Pilav-Velić, A., & Krndžija, L. (2021). Digital workplace transformation in the financial service sector: Investigating the relationship between employees' expectations and intentions. *Technology in Society*, 66(June), 101640. <https://doi.org/10.1016/j.techsoc.2021.101640>
- Shen, B., & Kuang, Y. (2022). Assessing the relationship between technostress and knowledge hiding—a moderated mediation model. *Data and Information Management*, 6(1), 100002. <https://doi.org/10.1016/j.dim.2022.100002>
- Shi, S., Zhao, H., Li, H., Zhang, M., & Leung, W. K. S. (2024a). Investigating challenge and hindrance appraisals of enterprise social media use among hospitality employees: A technostress perspective. *Tourism Management*, 100(May 2023), 104814. <https://doi.org/10.1016/j.tourman.2023.104814>
- Shi, S., Zhao, H., Li, H., Zhang, M., & Leung, W. K. S. (2024b). Investigating challenge and hindrance appraisals of enterprise social media use among hospitality employees: A technostress perspective. *Tourism Management*, 100(November 2022), 104814. <https://doi.org/10.1016/j.tourman.2023.104814>
- Si, W., Khan, N. A., Ali, M., Amin, M. W., & Pan, Q. (2023). Excessive enterprise social media usage and employee creativity: An application of the transactional theory of stress and coping. *Acta Psychologica*, 232(September 2022), 103811. <https://doi.org/10.1016/j.actpsy.2022.103811>
- Tandon, A., Dhir, A., Islam, N., Talwar, S., & Mäntymäki, M. (2021). Psychological and behavioral outcomes of social media-induced fear of missing out at the workplace. *Journal of Business Research*, 136(July), 186–197. <https://doi.org/10.1016/j.jbusres.2021.07.036>
- Tarafdar, M., & Pullins, E. B. (2014). Examining impacts of technostress on the professional salesperson's behavioural performance. *September*, 37–41. <https://doi.org/10.1080/08853134.2013.870184>
- Taser, D., Aydin, E., Ozer, A., & Ro, Y. (2022). Computers in Human Behavior An examination of remote e-working and flow experience: The role of technostress and loneliness. *127*(August 2021).
- Taser, D., Aydin, E., Torgaloz, A. O., & Rofcanin, Y. (2022). An examination of remote e-working and flow experience: The role of technostress and loneliness. *Computers in Human*

- Behavior*, 127(September 2021), 107020.  
<https://doi.org/10.1016/j.chb.2021.107020>
- Torres, C. C. (2021). Adaptation and Validation of Technostress Creators and Technostress Inhibitors Inventories in a Spanish-Speaking Latin American Country. *Technology in Society*, 66(June), 101660.  
<https://doi.org/10.1016/j.techsoc.2021.101660>
- Tuan, L. T. (2022). How and when does hospitality employees' core beliefs challenge foster their proactive coping for technostress?: Examining the roles of promotion focus, job insecurity, and technostress. *Journal of Hospitality and Tourism Management*, 52(June), 86–99.  
<https://doi.org/10.1016/j.jhtm.2022.05.017>
- Wang, X., Wuji, S., Liu, Y., Luo, R., & Qiu, C. (2024). Study on the impact of recommendation algorithms on user perceived stress and health management behaviour in short video platforms. *Information Processing and Management*, 61(3), 103674.  
<https://doi.org/10.1016/j.ipm.2024.103674>
- Yang, F., Tang, J., Men, J., & Zheng, X. (2021). Consumer perceived value and impulse buying behavior on mobile commerce: The moderating effect of social influence. *Journal of Retailing and Consumer Services*, 63(June), 102683.  
<https://doi.org/10.1016/j.jretconser.2021.102683>
- Ye, Y., & Chen, K. H. (2024). Hospitality employees and digital transformation: The mediating roles of alienation and motivation. *International Journal of Hospitality Management*, 119(February), 103731.  
<https://doi.org/10.1016/j.ijhm.2024.103731>
- Yu, L., Chen, Y., & Gong, M. (2023a). The duality of ICT-mediated overload: Its nature and consequences. *Information and Management*, 60(8), 103864.  
<https://doi.org/10.1016/j.im.2023.103864>
- Yu, L., Chen, Y., & Gong, M. (2023b). The duality of ICT-mediated overload: Its nature and consequences. *Information and Management*, 60(8).  
<https://doi.org/10.1016/j.im.2023.103864>
- Zhang, Y., Shi, S., Guo, S., Chen, X., & Piao, Z. (2021). Audience management, online turbulence and lurking in social networking services: A transactional process of stress perspective. *International Journal of Information Management*, 56(August 2020), 102233.  
<https://doi.org/10.1016/j.ijinfomgt.2020.102233>
- Zhao, X., Xia, Q., & Huang, W. (2020). Impact of technostress on productivity from the theoretical perspective of appraisal and coping processes. *Information and Management*, 57(8), 103265.  
<https://doi.org/10.1016/j.im.2020.103265>
- Zhu, Z., Zhao, M., Wu, X., Shi, S., & Leung, W. K. S. (2023). The dualistic view of challenge-hindrance technostress in accounting information systems: Technological antecedents and coping responses. *International Journal of Information Management*, 73(July), 102681.  
<https://doi.org/10.1016/j.ijinfomgt.2023.102681>