

THE POWER OF INTEGRATION TOWARDS SUSTAINABLE PERFORMANCE: A MODEL TO MINIMIZE TECHNOSTRESS AMONG FRONTLINE RESTAURANT EMPLOYEES BY COMBINING JOB AND EMPLOYEE RESOURCES

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Abstract: To develop a model that integrates restaurant and employee resources to overcome technostress and achieve sustainable performance. This qualitative study is based on twenty-two semi-structured interviews with restaurant managers and frontline employees (FLEs) to comprehensively understand how restaurant resources and personnel can be employed to combat technostress and achieve sustainable performance. Restaurant FLEs experience technostress from multiple sources, including unclear work-life boundaries, complex new systems, job insecurity, and the frequent use of new technologies. In addition, restaurant managers and FLEs concur that integrating restaurant and FLE resources is an effective model for reducing technostress and achieving FLEs' sustainable performance. The study expands the JD-R model to address the challenges faced by FLEs in managing technology-induced job demands, offering a comprehensive solution that benefits restaurants and employees. This approach considers the role of both employers and employees in managing technostress, leading to a supportive work environment and improved sustainable performance.

Key words: technostress, JD-R model, social support, digital competencies, employee proactivity, job autonomy, sustainable performance

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INTRODUCTION

FLEs need to communicate with customers and coordinate activities with team members in real-time, all of which necessitate the use of technology (Christ-Brendemühl, 2022). While technology can improve workplace efficiency, it can also create interruptions and become overwhelming, leading to technostress (Wu et al., 2022). Technostress is a psychological problem caused by using technology, especially when it makes people feel overwhelmed, frustrated, or anxious (Högberg, 2021). Technostress can be caused by several factors, such as complicated user interfaces, unreliable systems, and an increased workload due to the use of technology.

De Keyser et al. (2019) view service systems as a combination of technologies, processes, and human actors, including customers and FLEs. The use of technology can negatively impact FLEs' work and lead to technostress, which reduces employee performance due to job demands and resource limitations (Tarafdar et al., 2014). Hence, this study's first motivation is to understand the challenge of technostress in the restaurant industry among FLEs.

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Several studies have explored the impact of technology on employees in the hospitality industry (e.g., hotels and restaurants). Högberg (2021) found that technostressors such as work overload and changing algorithms create negative stressors among employees in an international hotel chain. Wu et al. (2022) studied the consequences of technostress among employees in smart hotels. They found that technostress negatively affects employee well-being and performance, with organizational learning having a countervailing moderating impact.

Christ-Brendemühl and Schaarschmidt (2020) investigated the impact of technology-induced job demands on FLE technostress, which reduces customer satisfaction and delight with the FLE. The study highlights the challenge of managing technology-induced job demands on the organizational frontlines. Christ-Brendemühl (2022) conducted a qualitative study to investigate the impact of digital technology on FLEs in the restaurant industry. The study found that FLEs agree that technology makes them more productive. However, unreliable or unintuitive systems and technology-induced role overload can evoke technostress and impair FLEs' well-being and job performance. However, limited research has been proposed on solutions for technostress among FLEs in the restaurant industry. Therefore, the second motivation of this study is to address the issue of technostress in the restaurant industry by developing a model that integrates restaurant and employee resources to achieve sustainable performance.

The job demand-resources (JD-R) model suggests that job demands and resources can significantly impact employee performance (Radic et al., 2020). Considering the JD-R model, the current study proposes that integrating restaurant resources with FLEs' resources can reduce technostress and maintain sustainable performance. Restaurant resources such as organizational support, supervisor support, co-worker support, and building employees' digital competencies can provide employees with the necessary resources to manage technology-induced job demands effectively. Organizational support is the help and resources the restaurant gives its staff members to improve their well-being, pleasure on the job, and performance (Sungu et al., 2019). Supervisor support refers to how much employees think their supervisor is friendly, helpful, and open to talking to them (Baqir et al., 2020). Co-worker support refers to the assistance and encouragement that employees provide one another in the workplace (Shin et al., 2021). Building employees' digital competencies refers to developing and improving employees' skills, knowledge, and abilities related to using digital technologies and tools in the restaurant (Daradkeh et al., 2023). Hence, the proposed restaurant resources can help reduce work overload, role ambiguity, and other technostressors negatively impacting employees' job performance.

Moreover, employee resources such as proactivity and autonomy can also be crucial in reducing technostress and maintaining sustainable employee performance. Employee proactivity is the degree to which employees take the initiative and engage in self-directed behavior to enhance their work environment or job performance (Demir et al., 2022). Proactivity can help employees anticipate and prevent potential stressors, while autonomy can help employees effectively manage their workload and responsibilities (Tuan, 2022b). Employee autonomy refers to the degree to which employees are independent and have decision-making authority at work (Spagnoli and Molinaro, 2020). By integrating restaurant resources with employees' resources, employers can create a supportive workplace that promotes sustainable employee performance, which means the ability of an employee to perform their job duties effectively and efficiently over a sustained period.

This current study uses a qualitative research approach through semi-structured interviews with restaurant managers and FLEs to comprehensively understand how restaurant and employee resources can combat technostress and achieve sustainable performance. The main three hypotheses questions of this study are as follows:

1. Do restaurants' resources, such as social support and building employees' digital competencies, play a crucial role in reducing technostress and maintaining sustainable employee performance?
2. Do employees' resources, such as proactivity and autonomy, play a crucial role in reducing technostress and maintaining sustainable employee performance?
3. Does the proposed model of integrating restaurant resources with employee resources improve employee sustainable performance?

Theoretically, the study extends the JD-R model by integrating restaurant resources with FLEs' resources to reduce technostress and maintain sustainable performance in the restaurant industry. The proposed model considers the challenges faced by FLEs in managing technology-induced job demands and provides a comprehensive solution that can benefit both employees and customers. Moreover, the study adds to the literature on technostress by proposing a model that provides a more holistic approach to managing technostress and considers the role of both employer and employee in managing technology-induced job demands. From a practical perspective, employers can create a supportive work environment that promotes sustainable employee performance by integrating restaurant resources with employees' resources. Moreover, employees can benefit from the model by accessing the necessary resources to manage technology-induced job demands effectively, reduce work overload and role ambiguity, and promote their well-being and job satisfaction.

LITERATURE REVIEW

1. Theoretical background

The JD-R model is a theoretical framework that explains how job demands and resources affect employee performance (Radic et al., 2020). According to the JD-R model, job demands refer to a job's physical, psychological, and social aspects that require sustained physical and mental effort and are associated with physiological and psychological costs (Pansini et al., 2023). On the other hand, job resources refer to those aspects of the job that are functional in achieving work goals and reducing job demands and are associated with motivation, engagement, and learning (Helal, 2022). The JD-R model proposes that high job demands, without sufficient resources, can lead to burnout, adverse health outcomes, and decreased job performance (Lee et al., 2019; Tantawy et al., 2016).

Conversely, high job resources can lead to engagement, well-being, and sustainable performance (Sarwar et al., 2020). Recent hospitality research shows that technostress can negatively affect employee well-being and performance (Christ-Brendemühl, 2022; Wu et al., 2022). Specifically, technostress leads to burnout, despondency, and dissatisfaction with work and peers (Pansini et al., 2023). However, it is also recognized that the overuse of modern technology in work environments cannot alleviate work overload but can lead to increased stress and dissatisfaction (Christ-Brendemühl, 2022). For instance, in a recent study of 454 employees in smart hotels in China, the authors used the JD-R model to investigate the impact of technostress on employee well-being and performance (Wu et al., 2022). The study found that technostress negatively affects employee well-being and performance and that organizational learning can counteract the adverse effects of technostress on employee well-being and performance. Therefore, our study adopts the JD-R model because it can explain various facets of technostress and identify potential job and employee resources that can mitigate the impact of technostress on FLEs and achieve sustainable performance.

2. Technostress

Technostress was first defined by Brod (1984) as the "modern disease of adaptation caused by an inability to cope with new computer technologies healthily." Technostress is a term used to describe the adverse effects of technology on individuals in the workplace, particularly in service industries where employees have to interact constantly with customers (Christ-Brendemühl, 2022; Pansini et al., 2023). The increasing use of technology in service businesses has led researchers to consider service systems as made up of technologies, processes, and human actors like customers and FLEs (Christ-Brendemühl, 2022; Christ-Brendemühl and Schaarschmidt, 2020). However, technology infusion comes with demands and complexities that can lead to technostress among FLEs. This stress arises when the demands of technology are perceived as incompatible with an individual's abilities and values, resulting in a psychological response that is perceived as stressful (Wu et al., 2022).

According to Tarafdar et al. (2007), technostress has five types of stressors (i.e., techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty). First, techno-overload is the simultaneous handling of different information flows from internal and external sources (Tuan, 2022a). Therefore, employees handle more information than before, which requires more efficient and faster work. Second, techno-invasion is considered the flexibility of technologies, i.e., the possibility to work at any time, which affects the work-life balance because employees feel that they are not free from technologies (Yasin et al., 2021). Third, the rapid advance of technologies makes them more complete, functional, and complex, generating techno-complexity in users (Hwang, 2021). Fourth, techno-insecurity occurs when employees are not confident in using technologies, leading them to think that they cannot cope with the tasks requested and that, in the future, they will be replaced by others (Fu et al., 2022). Finally, techno-uncertainty is the stress caused by rapid changes occurring in the market. This stress creates uncertainty among employees regarding what technologies they will face, eventually leading to frustration (Kim and Lee, 2021).

3. Conceptual development

3.1. Organizational resources

3.1.1. Social support and technostress

Social support is "information leading the person to believe that he or she is cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb, 1976). Social support also refers to the assistance and cares others provide, such as colleagues, supervisors, and family members (Alnazly et al., 2021). Research reported that hospitality employees who feel supported by their organization, supervisors, and colleagues are likelier to report higher job satisfaction, better mental health, and lower stress levels (Abbas et al., 2021). Additionally, work-based social support can help employees develop stronger relationships with their colleagues, improving teamwork, communication, and overall job performance (Slavković et al., 2021). Social support can be an effective inhibitor of technostress creators. Social support can reduce technostress creators' negative impact by providing employees with a sense of security and assistance when problems with digital technologies occur (Lanzl, 2023). This study concentrated on workplace social support (i.e., organizational, supervisor, and co-worker). Organizational support refers to the resources, policies, and practices an organization provides to support its employees' well-being, job satisfaction, and performance (Sungu et al., 2019). Organizational support can take many forms, such as providing training and development opportunities, offering flexible work arrangements, promoting work-life balance, and recognizing employees' contributions and achievements (Li et al., 2019). Perceived supervisor support refers to how employees believe their supervisors care about them and value their contributions to the organization (Gordon, 2020). Colleague support, also known as co-worker support, refers to the assistance and encouragement provided by one's colleagues or peers in the workplace (Shin et al., 2021).

Social support can be emotional, informational, or instrumental (Wright et al., 2021). Firstly, emotional social support is a type of social support that provides empathy, care, and understanding to individuals experiencing stress or emotional distress (Abbas et al., 2021). Examples of emotional social support include listening to someone's problems without judgment, providing encouragement and comfort, and expressing empathy and understanding. Emotional social support can help individuals cope with stressors by reducing feelings of isolation and loneliness, increasing self-esteem and confidence, and promoting a sense of belongingness. Secondly, informational social support is a type of social support that provides advice, guidance, and information to individuals who are experiencing stress or facing a problem (Jolly et al., 2020). Examples of informational social support include providing information about available resources and services, offering suggestions for problem-solving strategies, giving feedback on performance or work-related tasks, and sharing knowledge and expertise. Finally, instrumental social support is a type of social support that provides tangible resources or practical

help to individuals who are experiencing stress or facing a problem (Canhilal et al., 2020). Technostress is a modern phenomenon that can negatively affect restaurant employees (Christ-Brendemühl and Schaarschmidt, 2020). However, research has shown that higher levels of perceived organizational support are associated with lower levels of technostress among employees. For example, a study by Tarafdar et al. (2014) found that employees who perceived higher levels of organizational support reported lower levels of technostress. Similarly, a study by Ragu-Nathan et al. (2008) found that social support from colleagues and supervisors was negatively related to technostress. Therefore, by increasing the role of organizational support, FLEs can feel more empowered and less techno stressed in their work.

Supervisor support refers to the assistance and encouragement supervisors provide employees to help them cope with work-related stress (Gordon, 2020). Supervisor support can take many forms, including providing employees with the necessary resources and training to use technology effectively, offering flexible work arrangements to help employees manage their workload and maintain work-life balance, and promoting a positive work culture that values employee well-being (Baqir et al., 2020). A study by Tarafdar et al. (2014) found that employees who perceived higher levels of supervisor support reported lower levels of technostress. Similarly, a study by Lanzl (2023) found that social support from supervisors was negatively related to technostress. Therefore, supervisor support can have a significant impact on reducing technostress among FLEs. When supervisors provide support and resources to help employees manage their workload and use of technology, it can reduce the negative impact of technology on their job performance.

Co-worker support refers to colleagues' assistance and encouragement to help employees cope with work-related stress (Shin et al., 2021). Co-worker support can take many forms, such as sharing tips and tricks for managing technology, providing emotional support and understanding when co-workers experience technostress, and collaborating on projects to reduce individual workload (Lanzl, 2023). When co-workers provide support and resources to help each other manage their workload and use of technology, it can reduce the negative impact of technology on their well-being and job performance. According to one study, co-worker support can significantly decrease technostress and the need for recovery while enhancing employee motivation (Hessari and Nategh, 2022). Additionally, social support has been found to increase end-user performance, reduce techno-exhaustion, and lower physiological arousal (Weinert et al., 2020). Therefore, employees who perceive high levels of co-worker support are more likely to feel connected and supported in the workplace, which can reduce their levels of technostress.

3.1.2. Building employees' digital competences and technostress

Digital competence refers to the knowledge, skills, attitudes, abilities, strategies, and awareness required to effectively use technologies and digital platforms to complete tasks, solve problems, communicate, create and share content, and build knowledge (Falloon, 2020). Demir et al. (2022) define digital competencies as employees' ability to use hospitality establishment technologies responsibly and effectively. Restaurants can provide employees with training programs, workshops, and other resources that emphasize the development of essential knowledge, skills, and attitudes regarding using technology in an organizational setting to build their digital competencies (Daradkeh et al., 2023).

Another definition of digital competencies of employees refers to their skills, knowledge, experience, and expertise that are essential for a successful digital transformation in an organization, including their orientation toward digital technology, adoption of digital technology, and expertise with digital technology (Daradkeh et al., 2023; Osmundsen, 2020). The digital technology orientation of employees refers to their inclination and capacity to use digital technology, as well as their general awareness and interest in digital technology, which can result in a digitally enabled work-life (Osmundsen, 2020). The adoption of digital technology by personnel refers to the use of digital technology in the workplace. It is the realization by employees that digital technology can add value to their work and tasks (Osmundsen, 2020). The digital technology expertise of personnel refers to their work-related knowledge and skills in digital technologies (Suartha et al., 2023).

Vieru et al. (2015) proposed a typology of three employee digital competency archetypes. These archetypes are derived from combinations of three major competence areas (i.e., technological, cognitive, and social) and their respective learning domains (i.e., skill, knowledge, and attitude). First, technologically savvy employees have advanced technical skills and knowledge but may lack social skills and attitudes (Guan et al., 2021). Second, digitally literate employees have high cognitive skills and knowledge but may lack technological skills and social attitudes (Cetindamar Kozanoglu and Abedin, 2020). Finally, socially competent employees have high social skills and attitudes but may lack technical skills and cognitive knowledge (Vieru et al., 2015).

The current study argues that providing training programs and resources to cultivate FLEs' digital competencies can help them feel more confident and competent when using technology (Daradkeh et al., 2023; Osmundsen, 2020). These FLEs' digital competencies, in turn, could reduce common technostress symptoms, such as anxiety or frustration associated with technology use. Therefore, by providing employees with the tools and knowledge to utilize technology effectively, they can feel more confident in their ability to perform their job duties and have sustained performance. Furthermore, developing social skills and attitudes toward using technology may help FLEs feel more connected and supported in their work environment, which can help reduce technostress (Vieru et al., 2015).

3.2. FLEs resources

3.2.1. Proactivity and technostress

Employee proactivity refers to an individual's disposition towards actively engaging in work-oriented activities, such as initiating change, seeking opportunities, and taking active steps to impact their work environment positively (Doan et al., 2021). This behavior is typically characterized by a willingness to go beyond job responsibilities, show initiative,

exercise judgment, and confront situations head-on. Employees who exhibit proactive personality traits tend not to be affected by environmental constraints or changes; instead, they actively seek opportunities to display their ambition and take active steps to affect environmental changes (Zhao et al., 2013). A proactive personality is, therefore, a positive force in many areas, positively correlated with career success, proactive behavior, role breadth self-efficacy, flexible role orientation, and work performance (Bakker et al., 2012). Hence, we define employee proactivity as an individual's active rather than passive approach toward work. They seek and create opportunities, show initiative, take action, and persevere until they bring about change, leading to increased productivity and career success.

We propose that FLEs with proactive personalities may have an increased ability to withstand and cope with the negative impact of technostress. FLEs with proactive personalities tend to identify and act on opportunities, show initiative, take action, and persevere outwardly. According to Hung et al. (2015), two dimensions of the proactive personality (i.e., the transformation of situations and the confrontation of situations) play a crucial role in reducing the negative impact of technostress on productivity. Transformation of situations is one specific personality trait is the ability to transform situations, which is part of a proactive personality (Sumiyana and Sriwidharmanely, 2019).

This trait involves individuals actively seeking to create opportunities, influence their environment, and make changes to achieve their goals. Confrontation of situations is a specific dimension of proactive personality, which refers to an individual's tendency to actively address and overcome challenges and difficulties in their environment (Yi-Feng Chen et al., 2021). Employees with high confrontation of situations scores are determined to influence the environment rather than be influenced by it. They tend to confront stressful situations head-on and transform them into opportunities.

In the workplace, individuals with highly confrontational situations can better cope with technostress and communication overload, manage work requirements, and reduce their adverse impact. Therefore, the proactive personality is more of a stress reducer through removing obstacles.

3.2.2. Job autonomy and technostress

Job autonomy is the degree to which employees have control or choice over their work and their involvement in decision-making connected to their job activities (Spagnoli and Molinaro, 2020). It encompasses the freedom and independence to make decisions, act, and carry out tasks without excessive interference or supervision from managers or other authority figures. Employees with high levels of job autonomy have more flexibility and responsibility, leading to increased job satisfaction and motivation and, ultimately, better job performance (Lim et al., 2022). Job autonomy is often considered an essential aspect of job design and is an important determinant of employee behavior and outcomes in various work settings, including the restaurant industry (Ma et al., 2022). Job autonomy is an essential factor in the restaurant industry, as it can significantly impact job performance and employee satisfaction (Bhardwaj and Kalia, 2021).

Research has shown that when FLEs feel that they have a certain level of control over their work, it can activate their expression of prosocial motivation, which ultimately leads to better job performance (Hewagama et al., 2019), as job autonomy allows employees to take charge and be more proactive in suggesting and implementing improvements in their work environment. Autonomy is a feeling of control and choice (Ma et al., 2022). When employees express the desire for greater flexibility, what they want is autonomy. Hence, FLEs can manage stressful situations when they feel they have some control over how to respond. Therefore, if individuals have more autonomy and control over their work, they can set limits and respond to technostress in a way that suits them (Tarafdar et al., 2020). By managing their work-life balance, individuals can reduce the negative impact of technology on their well-being, making it possible to cope with technostress more effectively.

3.3. Sustainable performance, organizational and FLEs resources, and technostress

Sustainable employee performance refers to the exclusive efforts of employees to achieve personal and organizational sustainable growth over an extended period (Roscoe et al., 2019). Sustainable employee performance is an evolving concept that emerged from sustainability, which denotes an organization's ability to cultivate, raise, care for, and sustain (de Jonge and Peeters, 2019). Sustainable employee performance is critical for restaurants, ensuring employees' efforts align with their long-term goals, and it helps achieve greater workplace satisfaction, better retention rates, and sustained success (Cook, 2008). Restaurants prioritizing sustainable employee performance invest in measures that promote employee development, foster a positive workplace culture, and provide opportunities for employees to grow and enhance their skills (Min et al., 2020). Therefore, sustainable employee performance is an essential aspect of workforce management that emphasizes the importance of employee wellness and long-term restaurant success.

Organizational resources, such as social support and building employees' digital competencies, and personal resources, such as proactivity and autonomy, can enhance employees' ability to cope with technostress and raise their sustainable performance in several ways (Jolly et al., 2020). Social support from the restaurant can provide employees with resources to manage their workload and use technology (Abbas et al., 2021).

This support can include providing training and resources to help employees use technology more effectively, setting clear expectations and boundaries around technology use, and providing emotional support and understanding when employees experience technostress. By providing social support, restaurants can create a healthier and more productive work environment, leading to higher job satisfaction and sustainable performance (Gordon, 2020).

Building employees' digital competencies can also enhance their ability to cope with technostress (Golz et al., 2021). By providing training and resources to help employees use technology more effectively, restaurants can reduce the negative impact of technology on employees' well-being and job performance (Gordon, 2020; Tuan, 2022b). These competencies include time management training, digital literacy, and work-life balance. Personal resources, such as proactivity and

autonomy, can also enhance employees' ability to cope with technostress and raise their sustainable performance. Proactivity and autonomy can help employees take control of their workload and use of technology, which can reduce the negative impact of technology on their well-being and job performance (Tuan, 2022a). Hence, combining organizational and personal resources can enhance restaurant employees' ability to cope with technostress and improve their sustainable performance. After considering the above theoretical bases and arguments, we propose the following model:

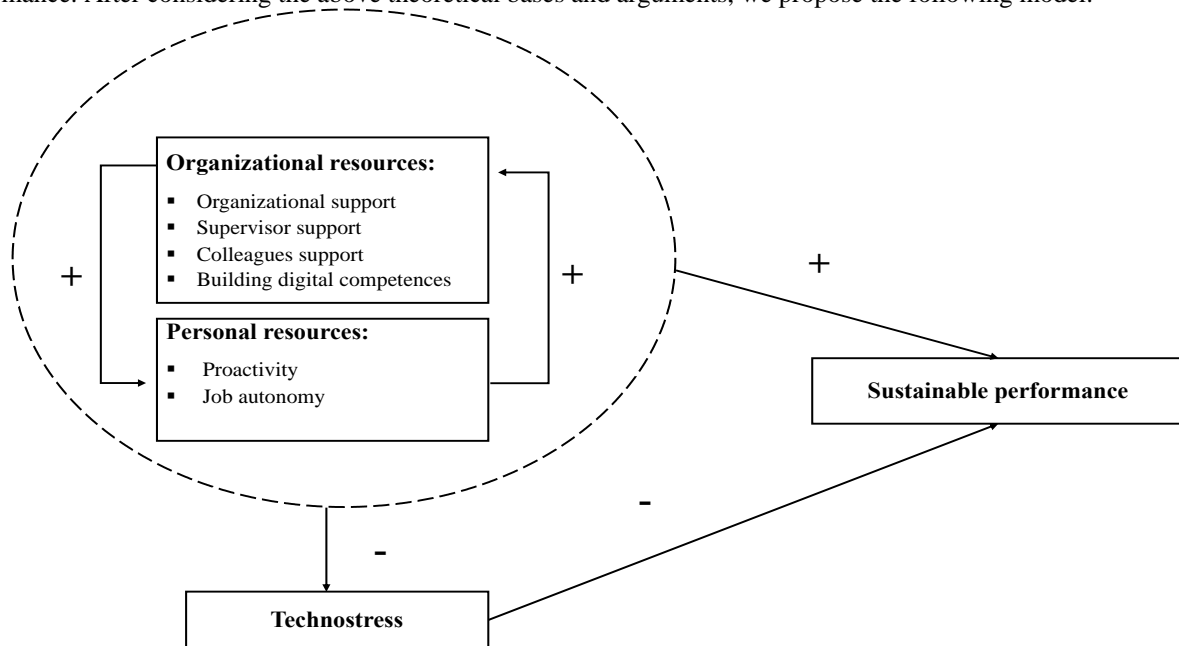


Figure 1. The conceptual model

MATERIALS AND METHODS

The current study collected data from restaurant managers and their FLEs using a qualitative approach. We employed semi-structured interviews, a style of interview that combines the benefits of open-ended and directed questions (Daradkeh et al., 2023). Participants were given more freedom in responding during semi-structured interviews, giving them more opportunities for inductive reasoning. The qualitative method (i.e., semi-structured interviews) was implemented through the following four stages: the selection of restaurant FLEs and managers, interview procedures, the generation of interview questions, and the analysis of the results.

1. Selection interviews

This study aims to create an integrated model that combines restaurant and FLEs resources to overcome technostress and improve sustainable performance. Initially, the research team attempted to obtain an official list of restaurants in Egypt to identify potential respondents. However, it was discovered that no such list exists. Instead, the team selected a group of restaurants that utilize digital technology in their customer service. The team then contacted 40 restaurant managers to inquire about the possibility of participating in the study. Of those contacted, 27 agreed to participate. The team then asked a preliminary question about technostress to ensure that the managers and FLEs were familiar with the phenomenon. This step resulted in 22 restaurants being selected for the study. Hence, we collected data from 15 restaurant managers and 12 FLEs through 22 semi-structured interviews.

2. Interview techniques

Table one provides data on the participants' demographic. There were ten restaurant managers and 12 employees who participated in the study. Of the restaurant managers, 70% were female, and 30% were male. Of the employees, 50% were female, and 50% were male. Regarding education, all participants had at least a high school degree, with the majority (83%) having a university degree and the remaining 17% having a post-graduate degree. Regarding the type of restaurant, 70% of the participants worked in an international chain, while the remaining 30% worked in a local chain. The interviews ranged from 60 to 90 minutes, with an average length of 69.5 minutes.

The most extended interview was conducted with a female employee who had a post-graduate degree and worked in an international chain and lasted for 90 minutes. The shortest interview was conducted with a male employee who had a high school degree and worked in a local chain and lasted 60 minutes. Overall, the data suggest that the study had a diverse group of participants in terms of work role, gender, education, and type of restaurant, which may provide valuable insights into the phenomenon of technostress in the restaurant industry.

3.3. Interview questions

The study interview form contains two parts: the first contains basic information about restaurant managers and FLEs, and the second contains interview questions. We prepared interview questions based on previous studies and the proposed model as follows:

- Could you explain what technostress is in your workplace?
- What are the types of stressors associated with technology, and how do they affect employees in the restaurant industry, particularly FLEs?
 - How does social support, specifically workplace social support from organizational resources, supervisors, and colleagues, affect the level of technostress experienced by FLEs in the restaurant industry?
 - What training programs and resources can be provided to FLEs in the restaurant industry to cultivate their digital competencies, and how can this help reduce technostress symptoms associated with technology use?
 - What is the relationship between employee proactivity and the ability to cope with the negative impact of technostress among FLEs in the restaurant industry?
 - How can job autonomy be utilized to reduce the negative impact of technostress on employees' well-being?
 - How can restaurant managers invest in sustainable employee performance by providing organizational and enhancing employees' resources to enhance FLEs' ability to cope with technostress?

Table 1. Participants profile

Code	Work role	Gender	Education	International or local chain restaurant	Interview length
1.	Restaurant manager	Female	University degree	International	65 minutes
2.	Employee	Male	High school degree	International	60 minutes
3.	Employee	Female	University degree	International	75 minutes
4.	Employee	Female	University degree	International	65 minutes
5.	Restaurant manager	Female	University degree	International	75 minutes
6.	Employee	Female	University degree	International	65 minutes
7.	Employee	Male	University degree	Local	60 minutes
8.	Restaurant manager	Female	University degree	International	85 minutes
9.	Restaurant manager	Female	Post-graduate degree	International	60 minutes
10.	Employee	Male	University degree	International	65 minutes
11.	Restaurant manager	Female	University degree	Local	75 minutes
12.	Employee	Male	High school degree	International	65 minutes
13.	Employee	Female	Post-graduate degree	International	90 minutes
14.	Restaurant manager	Male	University degree	International	80 minutes
15.	Employee	Male	University degree	Local	60 minutes
16.	Restaurant manager	Male	University degree	International	65 minutes
17.	Restaurant manager	Male	Post-graduate degree	Local	75 minutes
18.	Employee	Female	University degree	International	65 minutes
19.	Employee	Male	University degree	International	65 minutes
20.	Restaurant manager	Male	Post-graduate degree	Local	75 minutes
21.	Restaurant manager	Male	University degree	Local	65 minutes
22.	Employee	Male	Post-graduate degree	Local	85 minutes

3.4. Interview analysis

The present study utilized the thematic analysis technique, a qualitative research method that identifies, analyzes, and reports patterns or themes within a dataset. This approach involves systematically organizing and coding data to identify patterns of meaning, which are then grouped into themes or categories. The thematic analysis process encompasses several stages: data familiarization, initial code generation, theme identification, theme review, definition and naming of themes, and reporting the results. In addition, the study framework served as a guide to identifying trends in the datasets, enabling a more in-depth analysis and facilitating coding grouping into prospective topics. Using tables at each stage of the process enhanced the researchers' ability to evaluate and identify the codes and themes and to switch between them to comprehend the fundamentals of each code and theme and their interrelationships. The findings of this analysis confirmed the suggested model that integrates restaurant and employee resources to overcome technostress and achieve sustainable performance.

RESULTS AND DISCUSSION

1. Overview of technostress in the restaurant industry

The interview results about the definition of technostress provided by the restaurant FLEs and managers suggest that technostress is a multifaceted phenomenon that can manifest in different ways depending on the specific context and technology used. One of the FLEs highlighted the overwhelming number of messages and communication received outside of official working hours as a significant source of technostress. This result suggests that blurring boundaries between work and personal life due to the constant availability of digital communication channels can increase stress and anxiety. This finding is consistent with the literature on techno-invasion as a source of technostress (Yasin et al., 2021). "Technostress for me is the overwhelming number of messages and communication I receive outside of official working hours from my managers or colleagues at work" (Respondent No. 2). Another FLE emphasizes the importance of proper training when using new systems to avoid experiencing psychological stress, known as technostress. This result suggests that the complexity and novelty of digital technologies can lead to feelings of uncertainty, anxiety, and frustration, which can negatively affect employees' sustainable performance. This finding is consistent with the literature on techno-complexity as a source of technostress (Fu et al., 2022). "When I use a new system without proper training, I experience psychological stress known as technostress" (Respondent No. 15).

One of the restaurant managers highlights the potential for modern technology to create job insecurity and negative feelings among FLEs, known as technostress. This result suggests that the constant fear of being replaced by automated systems or the pressure to learn and adapt to new technologies can lead to stress and anxiety. This finding is consistent with the literature on techno-insecurity as a source of technostress (Fu et al., 2022). "Modern technology can create job insecurity and lead to negative feelings, known as technostress for among FLEs" (Respondent No. 8). Another restaurant manager emphasizes the frequent use of new digital technologies in the work environment as a significant source of technostress. This finding suggests that the constant demand to use and learn new technologies can lead to fatigue and burnout, negatively affecting employees' sustainable performance. This finding is consistent with the literature on techno-overload as a source of technostress (Högberg, 2021). "Technostress is the stress and fatigue felt by the employee as a result of the frequent use of new digital technologies in the work environment" (Respondent No. 20). These interview results highlight the importance of understanding the specific sources of technostress in the restaurant industry to develop effective strategies to mitigate its adverse effects on employees' sustainable performance.

2. Technostress and organizational resources

The interview results suggest that social support and building employees' digital competencies are crucial in reducing technostress among FLEs in the restaurant industry. According to the participants of FLEs, social support is beneficial in managing the stress associated with technology usage. It fosters a sense of belonging and support, reduces feelings of isolation, and helps effectively utilize technology (Gordon, 2020). Additionally, participants emphasized that motivation, encouragement, and assistance from colleagues, managers, and supervisors can positively impact work performance and reduce technostress caused by work pressure. "We offer support and assistance to one another during busy or stressful times, creating a positive and collaborative work environment." (Respondents No. 3, 7, and 10). However, participants also noted that the level of social support varies depending on the type of management and the approach used to motivate and appreciate employees. Further, some participants highlighted that there is no adequate support to deal with technostress in our restaurant. "A new point-of-sale system or online ordering platform that is difficult to navigate without adequate training causes me tension" (Respondent No. 22). Therefore, all restaurant managers should promote a supportive and collaborative work environment to reduce feelings of isolation and tension caused by using technology (Lanzl, 2023).

Restaurant managers have similar opinions regarding the benefits of social support in managing technostress among FLEs. They recognized that providing social support can foster a positive work environment and improve work performance. Managers also highlighted that motivation, encouragement, and assistance from colleagues, managers, and supervisors could reduce technostress caused by work pressure (Min et al., 2020). However, managers have varying opinions on the level of social support that should be provided and the approach used to motivate and appreciate employees. They need to balance the need for social support with other organizational priorities and may have different ideas on how to motivate and appreciate employees effectively. "I see that successful managers should have different approaches to motivating and appreciating employees, such as offering flexible work arrangements, financial incentives, or training and development opportunities. Hence, it is essential for managers to strike a balance between social support and other organizational priorities while implementing effective employee motivation strategies" (Respondent No. 21).

According to the results of a study on building employees' digital competencies, continuous training on new technologies used in restaurants can provide several benefits. These include ease of use, time and effort savings, and reduced technostress (Kim and Lee, 2021). "On a permanent and continuous basis, we receive training on any new technology that is used in restaurants. This training helps to fully know the technology used, which provides ease of use, saves time and effort, and reduces technostress." (Respondent No. 4, 12, and 13). Employees who work to improve their digital competencies also report feeling less anxious and frustrated when using technology. "We are working to improve our digital competencies to reduce anxiety and frustration related to the use of technology and to have a work-life balance" (Respondent No. 6 and 18). To support employees in developing their digital skills and knowledge, the restaurant managers provide them with technical support from specialists and ongoing training on new technologies. "We support the FLEs with resources such as user manuals, online tutorials, workshops with technical support from specialists, and troubleshooting guides to assist employees in using technology more effectively and developing their digital skills and knowledge." (Respondent No. 1, 16, and 17).

3. Technostress, FLEs' resources, and the sustainable performance

The responses of the restaurant FLEs varied according to whether the employee was still proactive or had lost their proactivity. Highly proactive employees strongly desire to learn new technologies, develop digital skills, and disclose technology-related issues with restaurant customers or themselves (Ma et al., 2022). These employees are likely to identify opportunities to use technology to enhance their work and take action to resolve any technical challenges that they encounter (Sumiyana and Sriwidharmanely, 2019). For example, a highly proactive employee could suggest a new system to improve efficiency, pick up a new POS system's features quickly, or utilize modern customer service applications to gain more positive reviews (Doeim et al., 2022). Contrariwise, some FLEs reported that their managers were unreceptive to their opinions, causing them to lose their sense of initiative. These non-proactive employees do not take the initiative to identify potential problems or opportunities to address technology-related problems (Bakker et al., 2012). This behavior is due to lacking motivation, confidence, and support. "I identified an issue with a touchscreen system, but no one listened to me or provided the necessary resources to address the issue" (Respondent No. 13). Restaurant managers highlighted that when FLEs proactively identify and address potential technology-related problems, it can lead to a more efficient and productive

workflow. They can adapt to the new technology smoothly, identifying the promising aspects, and developing solutions to potential issues, so it helps the restaurant implement the technology more effectively (Demir et al., 2022). "Proactive employees can also encourage other employees to follow their example, creating a work culture of taking the initiative and problem-solving." (Respondents No. 5 and 14). This positive and proactive work culture can contribute to the restaurant's overall success, leading to a more productive and efficient workforce (Doan et al., 2021).

The responses of FLEs regarding autonomy in the workplace are varied. Some employees responded that they have autonomy in their businesses, but the degree of autonomy varies depending on the manager. Some managers encourage employees to find creative solutions to technology-related problems and make decisions that improve their productivity. "The manager always informs us that every employee has their own opinion and is part of the restaurant's family. In addition, the manager provides an environment in which we can learn and feel empowered, as well as a constantly expanding mentality." (Respondents No. 19 and 22). Therefore, such a manager reduces technostress in the workplace, boosts the performance of FLEs, and ultimately contributes to the restaurant's success (Hewagama et al., 2019). In contrast, some employees responded that there are fixed rules and procedures that only restaurant managers can alter.

On the one hand, restaurant managers emphasized that they have a high degree of autonomy among FLEs, which permits them to work and manage their duties independently, preventing them from feeling threatened by technology. They can aid in the creation of more efficient workflows and prevent them from feeling constrained, thereby reducing technostress (Tarafdar et al., 2020). "A reasonable amount of autonomy enabled the FLE to suggest a change in the order of how certain tasks are performed within the POS system to improve the process and reduce stress." (Respondents No. 9 and 11). On the other hand, some managers affirmed that there is not an abundance of autonomy in the tasks of the FLEs, as a strict system defines the responsibilities of every employee in the restaurant. Therefore, restaurant managers should strive to balance the need for efficient workflows with providing enough autonomy to FLEs to manage their duties and reduce technostress.

Based on the interviewees' answers, the restaurant could achieve sustainable performance by managing technostress among its FLEs. The study identifies various sources of technostress and provides effective mitigation strategies that target the specific sources of technostress. Social support, adequate digital training, and proactive initiatives such as fostering a problem-solving and initiative-taking work environment can reduce technostress among FLEs, promote digital competencies, and increase restaurant efficiency and productivity. Finally, the study highlights the importance of FLE autonomy in reducing technostress, and restaurant managers should encourage FLEs to share their thoughts on using technology.

CONCLUSIONS AND IMPLICATIONS

1. Theoretical implications

The study has significant theoretical implications because it proposes a model that integrates restaurant resources with FLEs' resources to manage technostress and maintain sustainable performance, thereby filling a research gap. First, the model of this study extends the JD-R model by providing a more comprehensive approach to managing technostress and by considering both the employer and employee roles. The proposed model integrates restaurant and employee resources and considers the difficulties employees face in coping with technology-induced job demands, such as role overload and ambiguity, which can contribute to technostress. This model applies to the restaurant and other service industries in which technology plays a crucial role in job performance. Second, the current study expands the existing literature on technostress by providing a more nuanced understanding of the specific sources of technostress FLEs that the restaurant industry encounters. Identifying various sources of technostress, such as techno-invasion, techno-complexity, techno-insecurity, and techno-overload, provides employers and employees with a more comprehensive approach to managing technostress. This identification can lead to effective mitigation strategies that target the specific sources of technostress and enhance employees' job performance (Gordon, 2020).

Third, the study's results highlighted the importance of social support in mitigating technostress among FLEs in the restaurant industry. Social support reduces technostress by providing FLEs with a sense of belonging and encouragement and reducing feelings of isolation (Sungu et al., 2019). In addition, social support assists FLEs in learning new technologies and acquiring digital skills, allowing them to feel more in control of their roles and less overwhelmed by technology (Weinert et al., 2020). Therefore, restaurant managers should provide FLEs with social support to reduce their technostress. This support can be accomplished by fostering an environment where FLEs feel comfortable asking inquiries, requesting assistance, and providing FLEs with training and resources on new technologies. Fourth, the study emphasizes the significance of providing FLEs with adequate digital training when implementing new systems to prevent technostress. The complexity and novelty of digital technologies can result in feelings of nervousness, anxiety, and frustration at work (Fu et al., 2022). Therefore, restaurant managers should consider implementing continuous training on new technologies and providing ongoing technical support to resolve technology-related issues, thereby promoting digital competencies among employees and reducing technostress (Kim and Lee, 2021).

Fifth, the study found that proactive FLEs are more likely to identify opportunities to use technology to enhance their work and to take action to address any technical obstacles they encounter. Non-proactive employees, on the other hand, do not identify potential problems or opportunities to address technology-related issues. It is essential to recognize that proactivity can be fostered in employees by fostering a problem-solving and initiative-taking work environment, which can increase restaurant efficiency and productivity (Demir et al., 2022). The study's final theoretical implication is the role of FLE autonomy in reducing technostress. The study found that a few employees have autonomy at work, enabling them to work and manage their responsibilities independently, preventing them from feeling threatened by technology, and contributing to developing more efficient procedures. On the other hand, employees without more autonomy responded that only restaurant

managers could alter established rules and procedures and share their ideas. Therefore, restaurant managers should give FLEs more autonomy by encouraging them to share their thoughts on using technology (Spagnoli and Molinaro, 2020).

2. Managerial implications

The current study has several managerial implications for restaurant managers and FLEs. The responses of FLEs and restaurant managers revealed various forms of technostress, including techno-invasion, techno-complexity, techno-insecurity, and techno-overload. Therefore, restaurant managers can reduce these technostressors among their FLEs by implementing the practices recommended by the study model. First, restaurant managers can implement a variety of social support practices. These practices include giving employees access to training materials and technical support (Kim and Lee, 2021), fostering a learning culture (Weinert et al., 2020), do not disturb the FLEs with calls and messages during rest time or outside working hours (Yasin et al., 2021), and supporting new technology users (Weinert et al., 2020). A supervisor can provide support by providing clear instructions and expectations for using technology, providing regular feedback and encouragement, and being available to answer queries and solve problems (Min et al., 2020). Creating a supportive and collaborative environment where employees feel secure asking for assistance, sharing tips for using technology effectively, and being patient and understanding with struggling people can provide co-worker support (Shin et al., 2021). Thus, restaurants can foster a positive and supportive environment, enhancing sustainable performance.

Second, restaurant managers should improve FLEs' digital competencies by offering proper digital training while introducing new technologies to avoid techno-complexity. Three kinds of training could be utilized in training practices (Falloon, 2020). Typically, a manager or superintendent provides on-the-job training, which consists of hands-on instruction on how to use particular technologies. FLE can access online training at their own pace, which includes videos, interactive exercises, and assessments. Blended learning, which incorporates on-the-job training and online learning, enhances the learning experience (Kim and Lee, 2021).

Finally, restaurant managers should promote proactive and autonomous behavior among FLEs. FLEs will feel more in control and less burdened by technology if they are empowered to make decisions regarding their technology use (Hewagama et al., 2019). Additionally, managers ought to listen to the feedback of FLEs regarding technology to identify areas for improvement and support (Abbas et al., 2021). By fostering proactivity and autonomy among FLEs, restaurant managers can foster a positive and productive work environment, reduce technostress, enhance sustainable performance, and provide superior customer service (Alshreef et al., 2023; Tarafdar et al., 2020).

FLEs can demonstrate proactivity and autonomy by asking questions when uncertain about new technology, taking the initiative to enhance technology use in the restaurant, approaching technology creatively, and sharing their knowledge with co-workers (Yi-Feng Chen et al., 2021). By adhering to these recommendations, FLEs can gain control over their technology use and reduce the adverse effects of technostress.

3. Limitations and further research

Although this study gives valuable insights into the problem of technostress among FLEs in the restaurant business and proposes a solution, some limitations must be addressed. First, the study was conducted in a particular geographical area (i.e., Egypt) and may not apply to other contexts. Consequently, future research should investigate the applicability of the proposed model to various regions and cultures. Second, the study relied on self-reported data from FLEs, which may be biased and not reflect their actual experiences. Future research could combine self-reported data with objective measures of technostress, such as physiological indicators and performance metrics.

In addition, the focus of this study was limited to integrating restaurant and FLEs resources to combat technostress and enhance sustainable performance. Future research could investigate the role of additional factors, such as individual differences, employment demands, and organizational culture, in the emergence of technostress and the maintenance of employee performance. Lastly, this study did not investigate the potential impact of the COVID-19 pandemic on technostress and employee performance. Future research could investigate the pandemic's impact on the restaurant industry's use of technology and its effects on employee well-being and job performance.

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