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Techno-Insecurity, Emotional Exhaustion and Job Performance: A Recommended Theoretical Framework

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Abstract

Firms become increasingly dependent on information and communication technologies. While the extant literature focuses on the benefits of implementing and using such technologies, technology infusion in a high-touch service environment may become a double-edged sword. Drawing on job demands-resources and regulatory focus theories, this study proposes a theoretical framework and a set of propositions, which may help mitigate the adverse effects of techno-insecurity on emotional exhaustion, customer service performance, and productive work behavior. These propositions seek to promote research that gives a more comprehensive background of the technological problems that enterprises may experience when trying to increase customer service performance.

Keywords: techno-insecurity, emotional exhaustion, customer orientation, customer service performance

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Tekno-Güvensizlik, Duygusal Tükenme ve İş Performansı: Kuramsal Bir Model Önerisi

Özet

Şirketler, bilgi ve iletişim teknolojilerine giderek daha fazla bağımlı hale gelmektedir. Mevcut literatür bu tür teknolojilerin uygulanması ve kullanımının faydalarına odaklanırken, yüksek temaslı hizmet ortamında teknoloji entegrasyonu, iki ucu keskin bir kılıç haline gelebilir. İş talepleri-kaynaklar ve düzenleyici odak teorilerinden faydalanarak, bu çalışma, teknoloji belirsizliğinin duygusal tükenme, müşteri hizmetleri performansı ve üretken iş davranışı üzerindeki olumsuz etkilerini hafifletmeye yardımcı olabilecek teorik bir çerçeve ve bir dizi öneri sunmaktadır. Bu öneriler, işletmelerin müşteri hizmetleri performansını artırmaya çalışırken karşılaşabilecekleri teknolojik belirsizlik sorunlarının daha kapsamlı bir bağlamını sağlamayı amaçlamaktadır.

Anahtar Kelimeler: tekno-iş kaygısı, duygusal tükenmişlik, müşteri odaklılığı, tüketici hizmet performansı

1. INTRODUCTION

According to 2021 World Bank statistics[3], employment in services accounts for 51% of entire employment worldwide. The delivery of high-quality services requires sales associates to interact with customers and co-workers frequently. This constant interaction, which requires employees to subdue their negative emotions, often causes emotional exhaustion (Lam et al., 2010). Until recently, the interaction between sales associates and customers has been referred to as high-touch, low-tech. Nevertheless, this situation is rapidly changing due to the adoption of information and communication technologies (henceforth, ICTs) in sales associate-customer interactions (Bitner et al., 2000) in various industries such as food (Brustein, 2013; Konrad, 2013), travel (Nicas and Michaels, 2012), and hospitality (Giebelhausen et al., 2014). The acceleration of many companies' digital transformation in the post-Covid19 world forces digital product/service providers to rapidly commercialize unfinished products/services, only to be refined in time to stay competitive (Guenzi and Nijssen, 2021). This requires the employees to be upskilled/reskilled constantly since acquired skills often devalue significantly over time (Ragu-Nathan et al., 2008).

The adoption and integration of ICTs, including information systems (e.g., office automation), communication tools (e.g., Zoom, Microsoft Teams), and enterprise social networks (e.g., Jive, Yammer) (Ma et al., 2021), can yield positive outcomes in service interactions. These benefits include enhanced employee productivity, efficiency, and effectiveness (Ayyagari et al., 2011) in customer interactions (Ayyagari et al., 2011; Bitner et al., 2000). Nevertheless, technology infusion in high-touch service environments is a double-edged sword. ICT implementation in high-touch service encounters may help employees improve their performance by allowing them to focus on personal customer interactions (De Keyser et al., 2019). On the other hand, the need for up/reskilling makes services more complex and creates further burdens (Subramony et al., 2017) for the sales associates. Dealing with new and frequently unreliable high-tech apparatus, trusting procedures in which technology partially substitutes human connection, and dealing with growing productivity opportunities are all part of these challenges (Christ-Brendemuhl and Schaarschmidt, 2020).

The scrutiny of the effect of ICT implementation encompasses several unexplored dimensions, namely the dark sides, which lately started to attract attention (Taser et al., 2022; Tuan, 2022). For instance, technological advances in ICTs transform service jobs and create a need to redesign sales associates' roles and integrate technology into service encounters. The fast pace of change in ICTs drastically transforms the process of learning for sales associates, which had a straightforward trajectory in the past. Employees were upskilled, became proficient, and naturally progressed in their careers in line with their acquired skills. The learning process, however, is no longer linear but disruptive. It is characterized by continuous upskilling/reskilling (Ragu-Nathan et al., 2008), making the employees susceptible to higher

[3] Last access 20.06.2020: https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS

workload and insecurity due to technology-induced change, which result in increased burnout, emotional exhaustion, and decreased productivity (Tarafdar et al., 2015). ICT-led job insecurity, an inescapable and current aspect of organizational work, implies that organizational IT users must be capable of dealing with it to limit its adverse implications. Nevertheless, the extant literature focuses on cognitive and affective behaviors that the employees exhibit either proactively or reactively to deal with the adverse consequences of ICT-led job insecurity (Lazarus and Folkman, 1984). In this conceptual paper, we endeavor to illuminate the potential pathways through which managerial intervention can be effectively executed. This involves the strategic allocation of organizational resources and/or the recruitment of personnel possessing personal attributes that harmonize with the demands posed by ICT complexity. Such an approach is aimed at equipping managers with preliminary insights into feasible strategies that can proactively mitigate emotional exhaustion, sustain employee performance, and curtail counterproductive behaviors within the workplace.

While the ICT investments, which amounted to 4.9 trillion USD in 2020 globally[4], have become a chief concern among 87% of CEOs[5], the extant service research in the area of digitization rarely focuses on sales associates, who must use ICT firsthand (Christ-Brendemuhl and Schaarschmidt, 2020; Subramony et al., 2017). The increasing adoption of ICTs may increase the stress levels of employees due to feelings concerned about losing their employment to adopted ICT or other employees with superior ICT skills (Pflügner et al., 2021). In such states (namely, techno-insecurity), to cope with workload increases (Aborg and Billing 2003) and to avoid being replaced, employees will need to enter a constant upskilling/reskilling cycle to keep their ICT competence up to date. Despite that, techno-insecurity has not been recognized as a result of technology-induced job pressures on the front lines of organizations, nor as a predictor of crucial consumer outcomes like customer service performance and customer-directed counterproductive behavior. To add to the extant techno-insecurity literature, which is entrenched in the Information Systems literature, we draw from the JD-R model (Bakker and Demerouti, 2007) and offer a framework that sheds light on the impacts of techno-insecurity on employees' mental health (i.e., emotional exhaustion) and organizational outcomes such as job performance and counterproductive work behavior (Lussier et al., 2019; Chen et al., 2020).

Technostress, often known as the strain that people face as a result of their failure to keep up with IT demands, emerges as an organizational phenomenon with adverse consequences such as increased burnout (Srivastava et al., 2015), emotional exhaustion (Ayyagari et al., 2011), and decreased productivity (Tarafdar et al., 2015). Techno-insecurity, a type of techno-stressor, indicates circumstances where employees are concerned about losing their work to adopted ICT or other employees with superior ICT skills (Pflügner et al., 2021). While organizations primarily focus on reducing physical risks associated with work-related tasks, they largely

[4] Last access 14.06.2020: https://www.idc.com/promo/global-ict-spending/forecast
[5] PwC surveyed 5,050 CEOs in 100 countries and territories in January and February of 2021. The report's global and regional figures are based on a sub-sample of 1,779 CEOs, proportional to the country's nominal GDP to ensure that CEOs' views are representative across all major regions. Ninety-three percent of the interviews were conducted online and 7% by post, by telephone or face-to-face. All quantitative interviews were conducted on a confidential basis.

overlook the possible psychosocial and mental health effects of work (World Health Organization, 2005), namely emotional exhaustion. In this study, we draw from the JD-R model (Bakker and Demerouti, 2007) and offer a framework, shown in Figure 1 below, that sheds light on the impacts of techno-insecurity on employees' mental health (i.e., emotional exhaustion) and organizational outcomes such as job performance and counterproductive work behavior (Lussier et al., 2019, p.747; Chen et al., 2020).

An effective salesforce is critical for sustainable competitive advantage through enhanced customer service and satisfaction (Katsikeas et al., 2018). While companies invest considerable resources in training their sales personnel in newly adopted ICTs, the resulting ROIs from such training initiatives may remain low (Behar, 2014). This proves that maintaining, developing, and managing a salesforce is difficult and costly (Zoltners and Sinha, 2005). In addition, the introduction of new ICTs further increases job demands on sales associates. To profit from an increased reliance on and use of ICTs, creating job designs with affordable demands and necessary resources is critical not only for the well-being of employees but also for obtaining positive job performances (Bakker and Demerouti, 2017). While emergent research shows that employees increasingly resort to self-shaped coping mechanisms, currently there is a research gap in the identification of coping mechanisms through which the adverse consequences of techno-insecurity can be mitigated (Pullins et al., 2020; Tarafdar et al., 2020). Thus, the core of our argument is that the impact of techno-insecurity on emotional exhaustion and job performance is contingent on (1) organizational resources (i.e., service climate), (2) system-related job demands (i.e., techno-complexity), (3) work-specific regulatory focus strategies (i.e., promotion and prevention focus), and (4) personal resources (i.e., customer orientation).

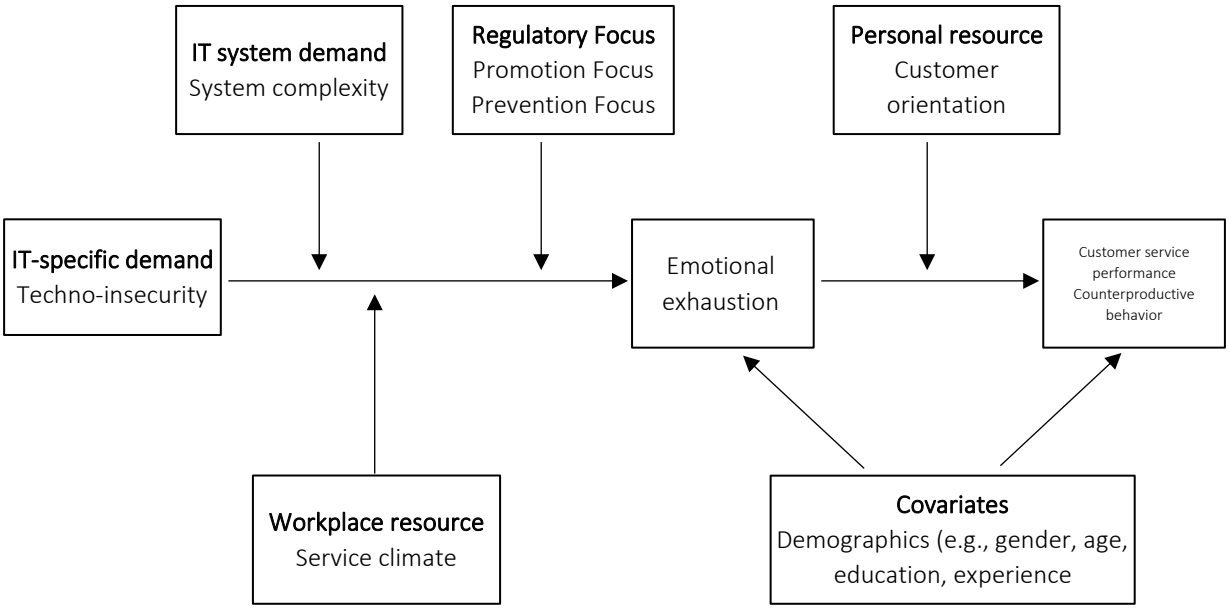
The extant literature takes the perspective that service and sales technology facilitate the interaction between sales/service employees and customers (Ayyagari et al., 2011; De Keyser et al., 2019). Outside of this spectrum, the literature also shows the other side of the coin, identifying the adverse consequences such as exhaustion, stress, and performance, as shown in Table 1 below.

Table 1: Techno-insecurity and its adverse consequences

Author(s)	Journal	Year	Research approach	Findings
Li and Wang	Cognition, Technology & Work	2021	Survey with 350 university professors	Techno-insecurity has a significant negative influence on work performance
Kim and Lee	Sustainability	2021	Survey with 700 employees in IT, manufacturing, services, public and other agencies	Techno-insecurity is positively related to counter-productive work behavior
Tarafdar, Pullins and Ragu-Nathan	Information Systems Journal	2015	Survey with 237 business-to-business sales professionals	Techno-insecurity is negatively related to sales performance
Tarafdar, Tu and Ragu-Nathan	Journal of Management Information Systems	2010	Survey with 233 professionals that use ICT daily	Techno-insecurity is negatively related to end-user performance and satisfaction
Shen and Kuang	Data and Information Management	2022	Survey with 287 ICT users	Techno-insecurity is positively related to counter-productive behavior
Satpathy, Patel and Kumar	Decision	2021	Survey with 334 IT sector employees	Techno-insecurity is negatively related to performance
Zhao, Xia and Huang	Information & Management	2020	Survey with 513 employees	Techno-insecurity is negatively related to employee productivity
Tarafdar, Pullins and Ragu-Nathan	Journal of Personal Selling & Sales Management	2014	Survey with 237 institutional sales professionals	Techno-insecurity is negatively related to sales performance
Florkowski	Employee Relations: The International Journal	2019	Survey with 169 HR executives	Techno-insecurity is negatively related to job satisfaction and performance
Turel and Gaudioso	Cognition, Technology & Work	2018	Survey with 175 state employees and 178 IT professionals	Techno-insecurity is positively related to distress and work exhaustion
Tarafdar, Tu, Ragu-Nathan and Ragu-Nathan	Journal of Management Information Systems	2007	Survey with ICT users in 223 organizations	Techno-insecurity is negatively related to job performance
Wang, Shu and Tu	Computers in Human Behavior	2008	Survey with 1029 employees in 86 Chinese organizations	Techno-insecurity is negatively related to job performance

We acknowledge the adverse consequences of the technology worked by the employees to ideally contribute to their main responsibilities and/or balance their encounters with clienteles, such as emotional exhaustion, decreased customer service performance, and customer-directed counterproductive behavior. Given recent shift in work structures and given the adverse consequences of such a shift (i.e., decreases in job performance and increases in employee burnout), we offer the theoretical framework exhibited in Figure 1 Consequently, the purpose of this study is to aid scholars and practitioners in better understanding how the adverse consequences of techno-insecurity may be mitigated. In developing our research proposals, we apply Bakker and Demeroutti's (2007) job demands-resources (JD-R) model and Higgins' (1998) regulatory focus theory to sales associates whose tasks involve the use of technology. Next, we establish the research objectives and the theoretical framework. Simultaneously, we provide a table that summarizes the research pertinent to the scrutiny of the relationship between techno insecurity and customer service performance. Finally, we discuss the theoretical and managerial suggestions. Please note that this study complies with research and publication ethics.

Figure 1: Proposed Theoretical Framework



2. LITERATURE REVIEW

2.1. The JD-R Model

The job demand-resources model (Bakker and Demerouti, 2007; Demerouti et al., 2001) offers a compelling theoretical basis for explicating the effect of techno-insecurity on employee burnout as stressors associated with technology have become all too common characteristics of tasks in the modern workplace (Tarafdar et al., 2019). The JD-R model is comprised of two main categories, namely, job demands and job resources. Job demands are defined as physical,

psychological, social, or organizational job components that call for consistent physical and/or psychological (cognitive and emotional) effort or abilities. As a result, these demands are linked to certain physiological and/or psychological expenses (Bakker and Demerouti, 2007). On the other hand, job resources are "physical, psychological, social, or organizational aspects of the job that help to either achieve work goals, reduce job demand and the associated physiological and psychological cost or stimulate personal growth and development" (Bakker and Demerouti, 2007). Resources can also be personal (e.g., self-efficacy, experience, social networks). Personal resources are "the beliefs people hold regarding how much control they have over their environment" (Bakker and Demerouti, 2017).

According to the JD-R model, job demand can result in burnout when job resources are drained due to meeting job demands but are not replenished with additional job resources. We posit that techno-insecurity is a job demand, which can deplete service employees emotionally because by adopting ICTs (Information Communication Technology), employees may feel threatened about possibly losing their jobs to either automated systems or other people who may be more knowledgeable in ICTs.

The JD-R model explains the well-being of employees by a dual process pathway, namely via the impairment and motivational routes. The impairment pathway ensues through demands by affecting strain, burnout, and exhaustion. The motivational pathway occurs through resources by influencing engagement and satisfaction of employees. Additionally, the JD-R model examines the consequences of the interaction between demands and resources. That is, the JD-R model predicates a buffering hypothesis where resources, including job and personal resources mitigate the adverse effects of job demands. In line with the current literature (Menguc et al., 2020), we also expect that the demand interaction will amplify the original demand's adverse effect. That is, we expect that the joint effect of two demands to impair emotional well-being further. These two predictions (i.e., Demand x Resource, and Demand x Demand) lay the theoretical foundation on which we build our interaction proposals.

2.2. Overview of the Conceptual Model

Our conceptual model is depicted in Figure 1. In accordance with the JD-R's theoretical lens, we investigate how resources cushion and offset while demands augment and worsen the indirect effect of techno-insecurity on customer service performance and customer-directed counterproductive behavior. We chose emotional exhaustion as the mediator since emotional exhaustion is a consequence of job demands (Demerouti et al., 2001). In addition, as part of the conceptual model, we advance various moderators as either resources (e.g., customer orientation; prevention and promotion focus; service climate) that alleviate or demands (e.g., techno-complexity) that amplify the indirect effect of techno-insecurity on customer service performance and customer-directed counterproductive behavior.

The selection of the moderators was based on the following theoretical grounds. The extant literature prioritizes studying two types of resources: organizational and personal (Bakker and

Demerouti, 2007). For demands, we aimed to add in those that were system-related and employee-related. Based on the selection criteria and in accordance with JD-R theory, we selected one organizational (i.e., service climate) and three personal resources (i.e., customer orientation; prevention and promotion focus). In addition, we selected one system-related (i.e., techno-complexity) and one organizational (i.e., techno-insecurity) demand.

2.3. The Mediating Role of Emotional Exhaustion

Emotional exhaustion is one of the three components of Maslach and Leiter's (2017) model of burnout along with depersonalization and diminished personal accomplishment. We define emotional exhaustion as a continual condition of emotional and physical weakening, which results from workplace stressors (Cropanzano et al., 2003). According to Lee and Ashfoth (1993), emotional exhaustion, which has a chief mediating part in the burnout process, is the notion that best represents the core meaning of burnout (Shirom, 1989). Recall that techno-insecurity is an *employee-level construct* that assesses the degree to which service employees worry about losing their employment and being swapped by new ICT or other personnel with stronger ICT skills (Pflügner et al., 2021). In trying to manage techno-insecurity, employees will feel forced to devote a significant amount of time and effort to keeping their ICT expertise up to date to avoid being replaced. As a result, they will need to expend additional resources that can force them to accrue knowledge structures, advance scripts, and develop adaptive service tactics (Vredenburg and Bell, 2016), increasing their sense of emotional exhaustion.

In addition to possibly being fired if they do not improve their ICT skills, employees will still feel emotionally exhausted as the adoption of ICTs will impose new ceilings on their intra-organizational mobility and career. ICT adoption, which equates to a perceived career barrier, decreases not only the income expectations of the employee but also their status, autonomy, and job resource progress. Techno-insecurity leads to perceptions of possible career restrictions and job loss along with other adverse consequences because most employees are experienced enough to link changes in the organization's technology with the elimination of job features and/or positions (Greenhalgh and Rosenblatt, 1984). Therefore, we posit that employees will appraise techno-insecurity as a threat and hindrance to their career progress and development (Lazarus and Folkman, 1984). Accordingly, we argue that techno-insecurity is an organization-initiated job demand that leads to burnout. This expectation is in accordance with the JD-R framework, which theorizes a positive correlation between job demands and burnout (Bakker and Demerouti, 2007).

Furthermore, emotional exhaustion has been shown to lead to increased withdrawal behavior (Lee and Ashforth, 1996), decreased job performance (Lussier et al., 2019; Sessions et al., 2020; Soenen et al., 2019) and increased counterproductive work behavior (Chen et al., 2020). In light of our hypothesis that techno-insecurity as a job demand affects emotional exhaustion, we maintain that lower customer service performance will be the outcome of emotional exhaustion and higher counterproductive work behavior. Therefore, we argue that techno-insecurity results

in more emotional exhaustion, which in turn causes lower customer service performance and higher counterproductive work behavior.

- **Research Proposition 1:** Techno-insecurity has a (a) adverse indirect effect on customer service performance and a (b) positive indirect effect on counterproductive behavior that is mediated by emotional exhaustion.

2.4. Conditional Indirect Relationship between Techno-Insecurity and Customer Service Performance and Counterproductive Work Behavior

2.4.1. Techno-Complexity

Technostressors include technological overload, technological invasion, and technological uncertainty, as well as technological insecurity and technological complexity. Techno-complexity refers to the degree to which the challenges created by ICT adoption are difficult to overcome. Different from techno-complexity, techno-insecurity is the job insecurity directly connected to ICT use (i.e., job loss due to increased automation) (Tarafdar et al., 2007).

We define techno-complexity as employees' assessment of where they stand in terms of ICT literacy due to ICT-related complexities (e.g., not having enough time to learn and upgrade, too complex to understand, etc.). This complexity pushes the workforce to devote substantial time and effort to learn and update their skills, just to not fall behind, let alone get ahead (Yeniaras and Kaya, 2022). In many aspects, techno-complexity relates to task difficulty and refers to work conditions that the employee considers difficult to understand. That is because the adoption of new ICTs will require the employees to learn new manuals that are often complex and overwhelming given their work schedule, increasing the scope and job skills required to maintain competitiveness (Dolan and Tziner, 1988). The ICT products and applications, by nature, change rapidly, forcing employees to upskill/reskill on a constant basis. This inhibits employees from accumulating knowledge structures, developing elaborate scripts, and improving adaptive service tactics (Vredenburg and Bell, 2016).

Nevertheless, even after improvement in ICTs, employees may experience poor documentation, application system failure (Carayon-Sainfort, 1992), and lack of technical resources and support (Ragu-Nathan et al., 2008). All of this creates fear, anxiety, frustration, and a sense of being unable to cope with the job demand (Fisher and Wesolkowski, 1999). In this regard, we theorize that techno-complexity is a system-related job demand that accentuates the influence of techno-insecurity on emotional exhaustion. We posit that the effect of service employees' fear of losing their jobs and the potential to lose their job to someone with greater ICT abilities or a new ICT (i.e., techno-insecurity) on emotional exhaustion will be further accentuated when compounded with another job demand– techno-complexity (i.e., the effect of demand x demand on emotional exhaustion). Emotional exhaustion is an individual level state in which employees experience a general loss of feeling and concern (Gaines and Jermier, 1983). The relevant literature often associates emotional exhaustion with decreased customer service performance (Auh et al.,

2022; Yeniaras and Kaya, 2022; Yeniaras and Gölgeci, 2023). Recall that customer service performance refers to the evaluation of the effectiveness with which a service employee provides in-role service performance to customers (Menguc et al., 2017). Also recall that in Research proposition 1a, we proposed an adverse indirect effect of techno-insecurity on customer service performance through emotional exhaustion. Consequently, the indirect relation of techno-insecurity on customer service performance via emotional exhaustion will be more negative via emotional exhaustion when techno-complexity is high. Accordingly, we propose the following:

- **Research Proposition 2a:** The adverse indirect effect of techno-insecurity on customer service performance through emotional exhaustion is accentuated when techno-complexity is high (vs. low).

While counterproductive work behavior is an employee-level phenomenon, it may have a detrimental effect on organizational performance (Chen et al., 2020). Further, counterproductive behavior is a common consequence among emotionally exhausted employees (Ferris et al., 2009; Stewart et al., 2009). Counterproductive work behavior is a voluntary behavior that violates organizational norms exhibited by employees (Ferris et al., 2009). Previously, we established that techno-insecurity may cause employees to perceive that they lack the necessary internal and/or external resources to perform the tasks that will be required with the adoption of ICTs. Consequently, they may feel emotionally exhausted and overextended (Maslach and Jackson, 1981). An additional job demand in the form of techno-complexity will further emotionally exhaust the employees. Accordingly, we suggest that this increase in employee-level emotional exhaustion, will accentuate the indirect effect of techno-insecurity on counterproductive work behavior. That is because as suggested earlier, emotional exhaustion is found to be positively correlated with counterproductive behavior.

- **Research Proposition 2b:** The positive indirect effect of techno-insecurity on counterproductive work behavior through emotional exhaustion is accentuated when techno-complexity is high (vs. low).

2.4.2. Service Climate

Employees' opinions of the company's service quality-focused strategies, processes, and procedures, as well as the service quality emphasis they experience in terms of the activities that are rewarded, expected, and encouraged, are collectively referred to as the "service climate" (e.g., Schneider et al., 1998; Shepherd et al., 2020). Service climate refers to the view among staff members of whether management expects staff to have the essential skills to give high-quality service and provide the tools, training, management strategies, and help to support such capabilities" (Schneider et al., 1998). Social information processing theory (Salancik and Pfeffer, 1978) posits that through repeated social interactions, employees that are tasked within the same groups develop a collective awareness and perception of the work environment. That is, employees within the same group will form alike views of the degree to which the company

values service quality and provides necessary resources to its employees (Salanova et al., 2005). Consequently, we conceptualize service climate as a *group-level* construct that elucidates employees' collective view of firm's service quality-focused practices and actions.

In accordance with the latest research (Menguc et al., 2017; 2020), we position service climate as an organizational job resource. When the service climate is high, not only are necessary resources provided to employees so that they can offer high-quality service, but also high-quality service is rewarded, which will incentivize service personnel to deal with job demands. When techno-insecurity occurs in a high-service climate, emotional exhaustion is expected to be mitigated because employees can have access to and rely on the necessary resources, training, managerial practices, and assistance that can relieve the possible adverse effects of fear of losing their jobs and being replaced by a new ICT or other employees with better ICT skills (i.e., the effect of demand x resource on emotional exhaustion). Since the effect of techno-insecurity on emotional exhaustion will be lower when service climate is high, this has implications on the magnitude of the two indirect effect hypotheses proposed earlier. The adverse indirect effect of techno-insecurity on customer service performance and the positive indirect effect of techno-insecurity on counterproductive work behavior will both be mitigated because emotional exhaustion as the mediator will decrease when service climate is high.

- **Research Proposition 3a:** The adverse indirect effect of techno-insecurity on customer service performance through emotional exhaustion is attenuated when service climate is high (vs. low).
- **Research Proposition 3b:** The positive indirect effect of techno-insecurity on counterproductive work behavior through emotional exhaustion is attenuated when service climate is high (vs. low).

2.4.3. Regulatory Focus

Regulatory focus theory reveals key dissimilarities in how people pursue pleasure and avoid pain (Higgin, 1998). A strategic tendency that influences how people approach and work toward desired results is a regulatory focus (Förster et al., 2003; Higgins, 1998). Individuals engage in self-regulation through processes that align their self-concept and/or behaviors with objectives and standards (Brockner and Higgins, 2001) by leveraging two basic strategies: promotion and prevention foci. While individuals with a promotion focus regulate the achievement of rewards and focus on promotional goals, those with a prevention focus regulate the prevention of retribution and focus on prevention objectives (Kark and Van Dijk, 2007). Promotion goals characterize the ideal self, which encompasses hope, wishes, and aspirations and reveals an inclination to follow ideals and opportunities for development towards set goals (Higgins, 1998). Consequently, individuals who operate primarily with a promotion focus are more creative problem-solvers and employ goal-attainment strategies (Brockner and Higgins 2001). Thus, promotion-focus individuals are more motivated to "pursue all means of advancement and are willing to take more risks" (Silbiger et al., 2017). Prevention goals illustrate ought-self,

which includes obligations, duties, and responsibilities. People who focus on prevention are more sensitive to the presence or absence of punishment and employ behavioral avoidance techniques. Accordingly, prevention-focus employees are more susceptible to adverse outcomes and are keen on avoiding making mistakes.

We focus on work-specific regulatory focus and introduce work promotion and prevention focus into our framework. Work-specific regulatory focus is built via merging stable personal attributes (i.e., basic needs, values, personality) and malleable situation stimuli (i.e., leadership and work climate) (see Higgins, 2000). While promotion and prevention focus both facilitate goal attainment, employee's utilization of prevention and promotion focus strategy when feeling job insecurity due to ICT implementations (i.e., situation stimulus) may have differential effects on performance facets such as customer service performance and counterproductive work behavior. Building on the extant literature that connects techno-insecurity to emotional exhaustion, we integrate regulatory focus into our framework and suggest that the promotion and prevention focus as self-regulation strategies can further clarify the relationship between techno-insecurity and emotional exhaustion, hence indirectly affecting performance outcomes.

The incidence of work achievement activity is the subject of the work promotion focus (Lanaj et al., 2012). In a work promotion focus employees will focus on the possibility of success and ways to attain positive outcomes (Higgins, 1998; Higgins and Tykocinski, 1992). Specifically, employees with a work promotion focus are keener to not only attain advancement and gains (Higgins, 1998) but also are watchful to avoid any omission errors (i.e., lack of accomplishments). In contrast, employees with a work-prevention focus are more risk-averse. They pay more attention to what may go wrong and how to prevent it, with the goal of avoiding unfavorable consequences. In addition, these employees will see goals as duties and obligations and want to make certain that they do not have any errors of commission (Wallace et al., 2010).

Recall that techno-insecurity is a career-restricting job-demand that forces employees to devote managerial time and effort as well as diverge from previously learned patterns and accumulated knowledge, leading to emotional exhaustion. Nevertheless, we believe that the choice of regulatory focus strategy under techno-insecurity should affect the emotional exhaustion that employees experience. While techno-insecurity may threaten employees' careers, promotion focus employees will be more readily receptive to fresh perspectives, tasks and ICT implementations (Friedman and Förster, 2001), since they are better able to exhibit adaptive behaviors. Prevention focus employees, however, prefer and are better at following established rules, tasks and standards (Lanaj et al., 2012). Accordingly, under techno-insecurity, employees with a prevention focus will sense additional emotional and physical depletion because of the heightened potential mistakes they can make while trying to learn the new system and the stress associated with the possibility of being replaced in their jobs. Conversely, employees with a promotion focus will focus on the challenge of overcoming the physical and emotional demands related to ICT and therefore will help keep emotional exhaustion in check. In a similar vein, the extant literature shows that promotion focus employees are more resilient to change than

prevention focus individuals. Accordingly, prevention focus is often associated with unfavorable health conditions (Bergvik et al., 2010).

Based on the above arguments, we state that for promotion-focused employees, the adverse indirect effect of techno-insecurity on customer service performance via emotional exhaustion will be attenuated while the positive indirect effect of techno-insecurity on counterproductive work behavior via emotional exhaustion will be mitigated. For prevention-focused employees, the adverse indirect effect of techno-insecurity on customer service performance via emotional exhaustion will be amplified while the positive indirect effect of techno-insecurity on counterproductive work behavior via emotional exhaustion will be accentuated.

- **Research Proposition 4a:** The adverse indirect effect of techno-insecurity on customer service performance through emotional exhaustion is attenuated for employees with high (vs. low) promotion focus.
- **Research Proposition 4b:** The positive indirect effect of techno-insecurity on counterproductive work behavior through emotional exhaustion is attenuated for employees with high (vs. low) promotion focus.
- **Research Proposition 4c:** The adverse indirect effect of techno-insecurity on customer service performance through emotional exhaustion is accentuated for employees with high (vs. low) prevention focus.
- **Research Proposition 4d:** The positive indirect effect of techno-insecurity on counterproductive work behavior through emotional exhaustion is accentuated for employees with high (vs. low) prevention focus.

2.4.4. Customer Orientation

According to the psychological perspective of customer orientation, it is characterized as a person's tendency or predisposition to satisfy client demands while working (Brown et al., 2002) or as a work value that describes how workers' job expectations, beliefs, and behaviors are influenced by a long-held conviction in the value of satisfying customers (Donavan et al., 2004). In this study, we use a psychological viewpoint and identify CO as a personal job resource that represents how much employees value exceeding customers' expectations and are committed to their interests and well-being.

While employees, in response to feeling emotionally exhausted, may preserve their resources by putting in far less effort at work and hence reduce their service performance, the propensity of this occurring should be contingent on their expectations of having access to additional resources that can compensate for resource depletion. In such circumstances, employees resort to replenishing resources when they experience emotional exhaustion. Prior research in the extant literature have studied organizational resources such as co-worker and supervisor support (e.g., Halbesleben, 2006; Karasek et al., 1982) that service employees can leverage to prevent the depletion of resources and manage their emotional withdrawal from work (Halbesleben, 2006; Lee and Ashforth, 1996; Janssen et al., 2010).

Although the extant literature positions customer orientation as a personal resource that drives employees to provide high-quality service to customers (e.g., Brady and Cronin, 2001; Donavan et al., 2004; Anaza and Rutherford, 2012), whether and to what extent employees leverage customer orientation as a personal job resource for replenishment purposes is still left unexplored. We argue that customer orientation as a personal resource can dampen the deleterious effect of emotional exhaustion since although emotionally exhausted (high vs. low) customer-oriented employees will have the fortitude and desire to continue to provide high service performance while limiting counterproductive work behavior. The strong work value of enhancing the interests and well-being of customers, despite feeling emotionally exhausted, is expected to lift employees up and provide the drive and motivation to provide service excellence and avoid counterproductive work behavior. In accordance with the JD-R framework, we argue that the level of service employees' enthusiasm about meeting customer expectations and being devoted to delivering customer satisfaction will attenuate the adverse impact of emotional exhaustion on customer service performance and mitigate the positive effect of emotional exhaustion on counterproductive work behavior.

- **Research Proposition 5a:** The adverse effect of emotional exhaustion on customer service performance is attenuated when customer orientation is high (vs. low).
- **Research Proposition 5b:** The positive effect of emotional exhaustion on counterproductive work behavior is attenuated when customer orientation is high (vs. low).

3. DISCUSSION and CONCLUSION

On the practitioner side ICT investment amounted to 4.9 trillion USD in 2020 globally[6]. According to the PwC's 24th Annual Global CEO Survey[7], digital transformation has become a chief concern among 87% of CEOs. The same study reveals that while nearly 50% of CEOs plan to increase their long-term digital transformation investments by 10%, 56% of CEOs plan to focus their talent acquisition on deficient digital skills. These surveys indicate that the nature of the employee-customer interaction is evolving towards high-touch, high-tech. Accordingly, understanding how techno-insecurity may impact employee burnout, performance as well as counterproductive behavior and how to mitigate its possible adverse effects have become important for both practitioners and scholars.

To sum up, we visit the interplay among techno-insecurity, system complexity, service climate, prevention & promotion focus, emotional exhaustion, customer orientation, customer service performance, and counterproductive behavior. Service climate, which is a joint and communal concept (Salanova et al., 2005) is the customer service and customer service quality methods, procedures, and behaviors that are expected, rewarded, and supported by the company

[6] Last access 14.06.2020: https://www.idc.com/promo/global-ict-spending/forecast
[7] PwC surveyed 5,050 CEOs in 100 countries and territories in January and February of 2021. The global and regional figures in this report are based on a sub-sample of 1,779 CEOs, proportionate to country nominal GDP to ensure that CEOs' views are representative across all major regions. Ninety-three percent of the interviews were conducted online and 7% by post, by telephone or face-to-face. All quantitative interviews were conducted on a confidential basis.

according to employee perspectives (Schneider et al., 1998). Sales associates' perception of service quality refers to the availability of supportive resources, recognition by superordinates, and assistance in overcoming obstacles to the delivery of service in general (Schneider and Bowen, 1993). Service climate establishes the directions and standards about which emotions are to be displayed and which are to be averted (Ashforth, 1993). Such directions and standards should act as a mechanism that hinders signals sent by other sources in the work environment such as techno insecurity (Salancik and Pfeffer, 1978). Contrarily, we argue that techno-complexity, which refers to the complexity level of the ICT that the sales associates need to be constantly reskilled/upskilled for, will impede sales associates to improve adaptive service tactics that they can rely on (Vredenburg and Bell, 2016). This, in turn, will result in emotional exhaustion since system complexity will further add to the fear of being replaced.

Another mechanism by which sales associates may deal with techno-insecurity is through their approach motivation, namely their work-specific regulatory focus (Wallace et al., 2009). Work-specific regulatory focus, which encompasses prevention and promotion foci, is a relatively stable strategic inclination that determines how employees advance and try for desired outcomes. In work contexts, employee-level work-specific promotion and prevention focus may change as situational inducements (e.g., leadership, work climate and job-demands) change (Wallace and Chen, 2006). Techno-insecurity is a career constraining organization-initiated job demand, which requires the employees to constantly up/reskill not to lose their job to the adopted ICTs and/or to other employees with better ICT skills. Since changes in job-demands may shape the work-specific regulatory focus and employees' subsequent work behaviors (e.g., Johnson et al., 2010; Wallace and Chen, 2006), we believe that the relationship of techno-insecurity to emotional exhaustion will be dependent on the work-specific regulatory focus of sales associates.

There is no doubt that the fear of being replaced by a new ICT or other employees with better ICT skills (i.e., techno-insecurity) has adverse consequences on sales associates' well-being. Previous studies scrutinize the role of co-worker and supervisor support in coping with emotional withdrawal from work (e.g., Janssen et al., 2010). We define customer orientation at the individual employee level as a work value that captures the degree to which employees enjoy meeting customer needs and are dedicated to customers' interests and well-being, drawing on the psychological view of customer orientation, which views it as a surface trait and a work value. Nevertheless, the examination of customer orientation as a self-shaped coping mechanism remains untapped. We believe that, despite feeling emotionally exhausted because of felt techno-insecurity, customer orientation will act as a self-shaped coping mechanism and will offset the adverse consequences of emotional exhaustion. According to Gaines and Jermier (1983), the only indication that may quantify the overall impact of occupational pressures is emotional exhaustion. Consequently, our conceptual model may also provide a managerial toolbox to help organizations minimize their voluntary turnover rates (Wright and Cropanzano, 1998), enhance their customer service performance levels (Andrews and Carlson, 2004) and customer relationship performance (Yeniaras and Gölgeci, 2023).

4. LIMITATIONS and FUTURE RESEARCH

Although this study provides interesting information regarding the potential effects of technology infusion in high-touch service environments, several limitations should be considered. Firstly, the regulatory focus and job demands-resources theories are combined to offer the theoretical framework and concepts that we presented. While we ground our propositions in the relevant literature, the consideration of other job demands and resources may help better understand the relationships that we proposed in this study. Second, in this study, we mainly focus on the detrimental effects of techno-insecurity and suggest that it may cause emotional exhaustion, lower customer service performance and higher counterproductive behaviors among the employees. Nevertheless, we advise scholars to be cautious in generalizing and extrapolating our propositions and findings. That is because our propositions may be constrained by and vary in different industries and/or cultural settings.

Not to mention, the paper principally offers a theoretical framework and several assumptions without offering any empirical evidence. In future studies, the set of proposed relationships should be empirically validated to support them and establish the framework's robustness. While this work gives valuable insights, these limitations highlight the need for more research to provide a full and nuanced understanding of the complex interplay between technology infusion and its implications in high-touch service contexts. Accordingly, we advise scholars in conducting research in this particular field to conduct in-depth empirical investigations. Longitudinal, multi-level approaches as well as experimental designs may be used to understand whether the web of relationships that we propose in this study does in fact occur. Such endeavors may explore conditions in which techno-insecurity acts as a double-edge sword. That is, we contend depending on the employees' approach to work-specific regulatory focus strategies both customer service performance and counterproductive work behavior vary. Discovering more factors, which may include organizational culture and/or leadership style that may offset the negative consequences of techno-insecurity may help both the employees and the organizations to improve their efficiency and effectiveness. In addition, examining whether the proposed model works across cultures and industries appears to be a fruitful avenue of research. The comparison of diverse cultural backgrounds as well as varying industrial environments may present opportunities linked to technology integration in high-touch service encounters.

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