

High-Performance Work System and Organizational Resilience Process: The Case of Firms During a Global Crisis

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Owing to consecutive global crises (e.g., the COVID-19 pandemic, multiple regional wars), interest has grown in understanding and promoting organizational resilience. There is scant knowledge about *how* a human resource management (HRM) system can foster organizational resilience. This study examines the role of a high-performance work system in the organizational resilience process during the COVID-19 pandemic. We focus on two properties of the resilience process: stability during the jolt phase and flexibility during the turnaround phase. We test our hypotheses using quarterly sales data from 268 Korean firms during the COVID-19 pandemic. Our findings show that an high-performance work system reduces the severity of loss during the jolt phase (i.e., it maintains stability) through an increased climate of trust and enhances the scale of recovery during the turnaround phase (i.e., it improves flexibility) through an increased climate of innovation. We advance research on HRM, organizational resilience, and crisis management, showing how an HRM system can foster two essential properties for the resilience process to unfold effectively over time after the onset of a crisis.

Keywords: organizational resilience, resilience process, high-performance work system, organizational climate, COVID-19 pandemic

Today's business environment is increasingly more turbulent, with an upsurge in the magnitude and multiplicity of crises (e.g., global power conflict, climate change, natural catastrophes) that have markedly disrupted the global economy. This dynamism has led scholars to examine how organizations can achieve positive outcomes despite the presence of adverse events (van der Vegt et al., 2015). In this context, organizational resilience has emerged as a critical area of focus (for a review, see Raetz et al., 2022; Williams et al., 2017), as it is recognized for its pivotal role in providing competitive advantage during crises (Hamel & Välikangas, 2003; Sheffi, 2005).

Because organizational resilience can be fostered, human resource management (HRM) scholars have begun exploring the factors that contribute to organizational resilience (Lengnick-Hall et al., 2011). Although a handful of studies have found a positive impact of HRM practices on organizational resilience (Carvalho & Areal, 2016; Gittel et al., 2006; Lengnick-Hall et al., 2011; Nijssen & Pauwe, 2012), a significant research gap exists concerning how

HRM systems facilitate organizations to navigate through the different phases of crises effectively by building up a resilient process. This gap may be because prior scholars have conceptualized and empirically examined resilience as a static attribute, thus ignoring its temporal perspective (Cooke et al., 2019; Cooper et al., 2019; Zhou et al., 2022).

Although theorizing and operationalizing resilience as a static property may be methodologically convenient and provide valuable knowledge, doing so fails to capture comprehensively how HRM practices influence distinct patterns of organizational resilience throughout different phases of a crisis (Raetz et al., 2022). Indeed, as the environment continues to change, the properties of resilience (i.e., ways of achieving a positive state) likely differ over time. Accordingly, scholars have called for conceptualizing resilience as a process and conducting longitudinal investigations based on a temporal perspective (Williams et al., 2017). Despite this admonition, HRM research has rarely viewed resilience as a dynamic process. This is problematic because it does not reveal nuanced insights into the influence of HRM systems on the unfolding of organizational resilience over time. Viewing resilience as a process, our first objective is to examine whether HRM systems foster organizational resilience over time (Stoverink et al., 2020), thereby offering a temporal picture of the role of HRM systems during a crisis.

To achieve this objective, we embrace an inclusive concept of resilience, moving beyond the static view in the prior studies. We define organizational resilience as *the process through which organizational members minimize the impact of, facilitate recovery from, and capitalize on adversity* (Prasad et al., 2015; Williams et al., 2017). Resilience entails two properties: maintaining stability and enhancing flexibility (DesJardine et al., 2019). We specify how organizations demonstrate these two resilience properties during a crisis in a timely manner (DesJardine et al., 2019;

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Lengnick-Hall et al., 2011). A crisis generally involves two phases (Mitroff & Pearson, 1993; Roux-Dufort, 2007; Turner, 1976): *jolt* (i.e., a period in which a crisis causes immediate disruption) and *turnaround* (i.e., a period in which the impact of a crisis subsides after the jolt period and new opportunities may emerge). For effective resilience during a jolt, organizations maintain stability by lessening the impact of a triggered event, inducing a minimal plunge or less pronounced descent over time. During a turnaround, resilient organizations increase flexibility by building new resources, presenting a maximal upsurge or a more pronounced ascent over time. We use the context of the COVID-19 pandemic to examine whether HRM systems enabled organizations to stabilize their performance during the jolt phase of the pandemic and fuel recovery and growth during the turnaround phase.

Our second objective is to theorize and examine the mechanisms through which HRM systems build up the resilience process during different crisis phases. Although the previous research has theorized about the potential mechanisms underlying resilience (Lengnick-Hall et al., 2011), few studies have been conducted to test these mechanisms—particularly, those based on a temporal perspective. This omission is significant, given the extensive efforts in HRM theory and research to unravel the “black box” of how HRM contributes to organizational outcomes (K. Jiang et al., 2012; Wright & McMahan, 1992). Previous work has traditionally proposed and tested organizational climate as a central mediator between HRM systems and firm performance (Bowen & Ostroff, 2004; Collins & Smith, 2006; Cooper et al., 2019; Heffernan & Dundon, 2016; Popa et al., 2017). By extending this tradition, we propose that organizational climate is the key mechanism explaining the dynamic relationship between an HRM system and resilience, especially during extreme challenging events such as the COVID-19 pandemic. We assert that organizational climate facilitates resilience properties required during different crisis phases (Eichenauer et al., 2022; Helgeson, 1993; Williamson, 2014). Drawing from the prior models of resilience (Lengnick-Hall et al., 2011; Stoverink et al., 2020), we focus on two types of climate—the climate of trust and climate of innovation—and examine their distinctive roles in resilience properties (i.e., stability and flexibility).

In summary, we theorize and test the role of HRM systems. We do so in a high-performance work system (HPWS), which is a configuration of coherent practices (e.g., intensive training, pay-for-performance, employee participation) aimed at enhancing employees’ ability, motivation, and participation in order to expand their collective contributions toward organizational performance (Han et al., 2019; K. Jiang et al., 2012; Sun et al., 2007). We suggest that an HPWS can drive a resilience process by facilitating the organizational climate of trust as well as innovation. We theorize that a climate of trust buffers the disruptive impact during the jolt phase and supports effective cooperation to regain functionality during the turnaround phase. Moreover, we posit that a climate of innovation facilitates collective sense making, improves problem-detection, and reduces the disruptive impact during the jolt; and capitalizes on new opportunities, promotes creativity, and leads to transformation during the turnaround. Using two advanced analytical techniques, namely multilevel path analysis and discontinuous random coefficient growth model (RCGM), we examine the changes in firms’ performance over time during a crisis, with particular focus on the impacts of HPWS and organizational climate.

Our study makes two important contributions to the literature. First, we advance the emerging research on HRM systems and organizational resilience, providing a temporal perspective of resilience at the onset of a specific crisis (i.e., the COVID-19 pandemic). We theorize two phases of how resilience unfolds over time and empirically show how they develop as a result of an HPWS during a crisis. We provide nuanced insight regarding how an HPWS enables a firm to demonstrate two different aspects of the resilience process, thereby minimizing the adverse impact early in the crisis and boosting recovery later. Second, we examine the climate mechanisms underlying the effects of an HPWS on organizational resilience. Organizational climate captures the shared perception of a situation and provides scenarios of how employees make sense of the environment and work together. We specifically highlight how the climates of trust and innovation act as crucial mechanisms enabling organizations to navigate through crises effectively (Lengnick-Hall et al., 2011; Stoverink et al., 2020). In doing so, we demonstrate how HRM systems can shape the resilience process through various functions during different phases (i.e., jolt and turnaround).

Theoretical Background

Organizational Resilience as a Process

Organizational resilience accounts for why some firms attain positive outcomes and others do not when facing challenges (Lengnick-Hall & Beck, 2005; Sutcliffe & Vogus, 2003; Weick & Sutcliffe, 2011). Resilience enables organizations to minimize disruptive impacts as well as optimize current systems and pursue new opportunities in a timely manner (DesJardine et al., 2019; van der Vegt et al., 2015). Resilience involves two properties for attaining a positive state: stability and flexibility (DesJardine et al., 2019). Stability entails reducing the impact of a crisis while maintaining core functions and increasing persistence; flexibility involves regaining functionality and engaging in realignment and adaptation. Performance during a crisis is a situation-specific achievement that stems from managing uncertainty and ambiguity (Barton & Sutcliffe, 2009; Christianson et al., 2009). We examine *stability* in terms of the severity of loss (DesJardine et al., 2019; Y. Kim & Ployhart, 2014): that is, the extent to which an organization experiences a decrease in performance during a crisis. Stability shows a less serious plunge or a less steep trajectory of descent in key performance (e.g., sales). We explore *flexibility* in terms of the scale of recovery (DesJardine et al., 2019; Y. Kim & Ployhart, 2014): that is, the extent to which an organization experiences an increase in performance after the jolt phase. Flexibility, compared to stability, exhibits a more salient upsurge or a steeper trajectory of ascent in performance.

A crisis-as-a-process perspective presumes that a crisis begins with an event and that its impact varies over time (Roux-Dufort, 2007). Although scholars have developed various models to identify the different phases of a crisis (Milburn et al., 1983; Shrivastava, 1995; Turner, 1976), our theorization revolves around two distinct phases. The first is the jolt phase, the most destructive period during which a situation leads an organization to reach its lowest point of performance during the crisis. The second is the turnaround phase, the adverse impact-diminishing period after the jolt phase during which an organization is given space to recover to or even move

beyond the precrisis state from the lowest point of performance (Turner, 1976). We use this phase categorization to distinguish the effects of the COVID-19 pandemic. The outbreak of the COVID-19 pandemic disrupted global economies at the end of 2019. The gross domestic product of advanced economies (e.g., the United States, the United Kingdom, Germany, Japan) had significant decreases from the first quarter of 2020 and reached their nadir in the second quarter (see Figure 1). Subsequently, various public health measures were implemented, and a vaccine was announced, with the damaging effects subsiding over time. Global economies gradually returned to relative normality. Countries' gross domestic product showed a similar ascending pattern from the second quarter of 2020.

During the jolt phase, huge losses are inevitable owing to unprecedented and severe disruptions (Billings et al., 1980; Hermann, 1963). During a crisis, organizations encounter an epistemological void, namely, the uncertainty of the cause–effect link (Alvarez & Barney, 2010; Knight, 1921). Thus, determining the outcomes of potential decisions and their associated probabilities becomes more difficult (Alvarez & Barney, 2010; Knight, 1921). This situation induces emotional impacts such as anger, anxiety, and desperation (Kayes, 2004; Shepherd & Cardon, 2009). Such emotions amplify anomalous responses that impair core functioning (Huy, 2002; Kiefer, 2005). To address the situation in a resilient manner (i.e., to minimize the impact), organizations need to manage emotional stability and provide cognitive agility for collective sense making and problem identification (Vogus & Sutcliffe, 2012; Weick et al., 2005).

However, in the turnaround phase, organizations need to be flexible and adaptive to the new normal. The new normal presents an ontological void, namely, the uncertainty of a means-ends or strategy-goal link (Knight, 1921; Rindova & Courtney, 2020). This uncertainty

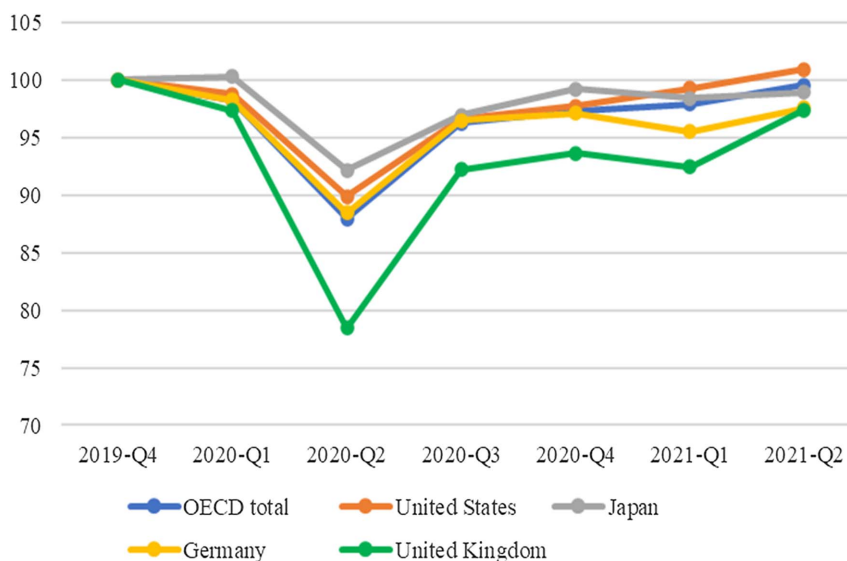
provides learning opportunities (Cope, 2011; Madsen & Desai, 2010; Zahra & George, 2002), change (Christianson et al., 2009), and innovation (Brockner & James, 2008). During a turnaround, the capability to solve problems and reconfigure new business models is vital for organizational resilience (Alvarez & Barney, 2007, 2020; Rindova & Courtney, 2020).

Organizational Climates: An Organizational Resilience Framework

Organizational climate serves as an important mechanism for HRM practices to encourage employees to behave in ways that deliver value and achieve goals (Bowen & Ostroff, 2004). Climates emerge at an aggregate level when members develop shared perceptions of the practices, procedures, or policies of an organization. These climates motivate employees to exhibit behaviors that are suitable for their specific contexts, ultimately resulting in high levels of performance (Bowen & Ostroff, 2004). HRM practices serve as signals and messages transmitted to employees, enabling them to form a collective sense of what is important and what behaviors are desirable.

Although organizational climate research has considered a broad range of climates, we focus on two distinct ones (i.e., trust and innovation) that are essential for the resilience process (Eichenauer et al., 2022; Helgeson, 1993; Williamson, 2014). Previous studies on resilience have fundamentally identified two critical dimensions—sociocontextual and task-functional—that significantly influence the resilience process (Gittell et al., 2006; Lengnick-Hall et al., 2011; Stoverink et al., 2020; Williams et al., 2017). The *sociocontextual* dimension involves supportive relationships, effective coordination, and a positive social environment that contribute to resilience. The

Figure 1
Trajectory of Quarterly Gross Domestic Product of Major Advanced Economies



Note. Values are from the Organization for Economic Cooperation and Development (2022). OECD total: Total GDP of all OECD member countries (unit: volume index, where fourth quarter 2019 = 100). Q = quarter; OECD = Organization for Economic Cooperation and Development. See the online article for the color version of this figure.

task-functional dimension encompasses resources rooted in employees' cognitive and behavioral functioning, including sense making, detection, and creativity. For instance, Gittell et al. (2006) have emphasized the critical role of positive social relationships in facilitating recovery, along with the significance of material resources for sustaining a viable business model.

The climate of trust and the climate of innovation, respectively, fosters the sociocontextual and task-functional dimensions of the organizational resilience framework (Lengnick-Hall et al., 2011). Lengnick-Hall et al.'s (2011) resilience component model highlighted the contextual dimension, emphasizing the importance of building interpersonal connections for an adequate resource supply and effective coordination. In addition, they emphasized the cognitive/behavioral dimension, such as creativity, problem solving, and innovative thinking. Williams et al. (2017) built on the component model, introducing the construct "resource endowment." This construct highlights the significance of both relational/emotional resources and cognitive/behavioral capacity for resilience. We posit that a climate of trust aligns with the relational dimension and that a climate of innovation accords with the cognitive/behavioral dimension.

In a more recent development, Stoverink et al.'s (2020) resilience process model introduced resilience as a process. They suggested that timely interactions and desirable actions of employees play a vital role in enabling organizations to minimize losses and promote gains. Organizations navigate a path toward resilience from the onset of adversity to its resolution. Building on their work, we elucidate the mediating role of the foregoing two organizational climates in the resilience process across the two different phases of a crisis. By integrating these models of resilience, we establish a theoretical basis for understanding how trust and innovation climates contribute to the resilience process during the jolt and turnaround phases.

Hypothesis Development

HPWS and Resilience During the Jolt Phase

A jolt creates a sense of disconnection among employees and intensifies negative effects on regular operations and functioning (D'Aveni, 1989; Maitlis & Sonenshein, 2010; Staw et al., 1981; Weick, 1990). After the outbreak of the COVID-19 pandemic, employees became increasingly concerned about workplace conditions (e.g., isolation, work overload, job insecurity) and the life domain (e.g., lack of childcare, vulnerable work-life boundary; Leroy et al., 2021; Lin et al., 2021; Taylor et al., 2021). A crisis breeds negative emotional responses (e.g., disappointment, lethargy, and cynicism; Huy, 2002; Kiefer, 2005) and leads employees to engage in withdrawal or anomalous behaviors (Khawaja et al., 2022).

According to resilience researchers, to maintain stability during times of a jolt, organizations must foster relational support among employees, as well as help them arrive at effective sense making and apt problem-detection (Gittell et al., 2006; Lengnick-Hall et al., 2011; Williams et al., 2017). But how might these be achieved? First, an HPWS, through collective-based incentives, can develop a sense of unity and solidarity (Collins & Smith, 2006), which creates mental fortitude for employees to attend to challenges and uncertainties that a jolt engenders (Avey et al., 2009). An HPWS promotes development of a collective mentality among employees (Gittell et al., 2010), thus nurturing positive relations, optimism, and

hope that mitigate the impact of unexpected adversity (Cooke et al., 2019). Second, with intensive training and participation practices, an HPWS enables employees collectively to search, shape, and store information while sharing clear goals, a sense of purpose, and core values (Jeong & Shin, 2019). This mental map fosters timely sense making and accurate problem-detection (Weick, 1995). Put succinctly, an HPWS facilitates employees in concert to face urgent situations, identify potential issues at an early stage, and enhance their collaborative ability to respond in a felicitous manner. In doing such, an HPWS enables employees to face and overcome a jolt collectively. Thus, we hypothesize the following:

Hypothesis 1: An HPWS has a negative relationship with the severity of loss during the jolt phase.

HPWS and Resilience During the Turnaround Phase

During a turnaround, organizations ultimately return to their precrisis performance (DesJardine et al., 2019). Organizations require flexibility to facilitate exploratory, generative, and opportunity-seeking actions (Alvarez & Barney, 2007, 2020; Barton et al., 2015; Rindova & Courtney, 2020). Organizations need to possess a high degree of flexibility and adaptability to return to normal or even move beyond it. The link between strategy and actual goals achievement is uncertain (Knight, 1921; Rindova & Courtney, 2020), but it presents opportunities to arrive at novel business models; such novelty is an essential component of resilience during a turnaround.

To enhance flexibility during a turnaround, organizations must promote adaptability among employees and social flexibility that embrace employees' creativity and change-oriented initiatives (Alvarez & Barney, 2007, 2020; Barton et al., 2015; Rindova & Courtney, 2020). An HPWS can foment this condition in two ways. First, it facilitates organizational adaptability to seize opportunities presented during a turnaround phase. This adaptability is fostered through focusing on employees' unique contributions that an HPWS elicits. Through performance management and intensive training, an HPWS enhances employees' cognitive agility, enables them to execute tasks, and develop the capacity to stretch themselves for exploratory endeavors (Patel et al., 2013). Employees can hone domain-specific expertise and develop contextual knowledge (Ployhart & Moliterno, 2011). Second, an HPWS can stimulate development of social flexibility through practices such as selective hiring and collective incentives. In the environment, employees feel comfortable sharing a diverse range of ideas and potential solutions, even if they challenge the existing status quo. An HPWS motivates employees to value, embrace, and consider others' diverse viewpoints, even though such perspectives may lead to challenges (Jeong & Shin, 2019). It fosters a social environment in which employees heighten interdependence, develop a sense of shared destiny, establish effective pathways for collaboration, and experience less adaptation tensions (Colbert, 2004). Thus, an HPWS affords employees to navigate turnaround situations more effectively and respond to new challenges and opportunities. Hence, we hypothesize the following:

Hypothesis 2: An HPWS has a positive relationship with the scale of recovery during the turnaround phase.

HPWS, Organizational Climates, and Resilience During a Crisis

An HPWS drives a resilience process by facilitating the emergence of organizational climates (Bowen & Ostroff, 2004). First, as employees interact with management and peers, they experience communal values in an HPWS and, in turn, develop relationship-based norms and beliefs (Gittell et al., 2010). Here, we focus on the climate of trust, defined as a shared perception of norms and beliefs among employees that enables positive expectations and a willingness to accept each other's vulnerability (Collins & Smith, 2006; Mayer & Davis, 1999). Second, an HPWS enables employees to grasp a clear understanding of goals, plans, and procedures, as well as collectively align their tasks with each other to pursue excellence and innovation; as such, a climate of innovation emerges (Li et al., 2018). We refer to this situation as a shared perception among employees that promotes the creation and implementation of solutions, ideas, and initiatives (Anderson & West, 1996).

HPWS and an Organizational Climate of Trust

With the common experience of an HPWS, employees share relationship-based values with one another, thus leading to their trust with management (Gittell et al., 2010). First, management investing in a long-term employment relationship with their subalterns (Mayer et al., 1995; Rousseau et al., 1998)—such as through profit sharing (Coyle-Shapiro et al., 2002), competitive compensation (Miceli et al., 1991), and intensive training (Y. Kim & Ployhart, 2014)—conveys a message that the organization attends to its employees' well-being and growth and also creates a common destiny between the organization and employees and among employees (J. Shin et al., 2012; Whitener, 2001; Zacharatos et al., 2005). Second, an HPWS establishes an organization's expectations of employees through performance management and clarifies employees' gains through individual incentives. Thus, employees experience a higher level of procedural justice and develop trust in the organization (Searle et al., 2011).

An HPWS leads employees to build a trust relationship among themselves. Selective hiring can result in hiring individuals who project an apt organizational fit and possess strong interpersonal skills; intensive training can help employees conduct their work reliably and professionally, thus affording them to rely on each other (Dirks & Skarlicki, 2009; Evans & Davis, 2005; J. Y. Jiang & Liu, 2015). Collective (i.e., team-, unit-, and organization-based) incentives and profit sharing facilitate employees to develop benevolent relationships based on a common destiny; this is done through their pursuing mutual benefits (Collins & Smith, 2006; Evans & Davis, 2005). Engaging in participation opportunities allows employees to gain access to transparency about "what is going on" in the organization and to appreciate the ethical principles of knowledge sharing and collective problem-solving. Collins and Smith (2006) assert that group- and organization-based incentives increase members' integrity over time through the development of norms that impose moral sanctions. When employees collaborate and receive incentives to achieve common goals, they can more readily identify and correct deviations from ethical standards. Accordingly, employees are better aware of the ability, benevolence, and integrity of management and coworkers

(Mayer & Davis, 1999). As employees share their perception of relationship-oriented practices in an HPWS, a climate of trust emerges in the organization. Thus, we hypothesize the following:

Hypothesis 3: An HPWS has a positive relationship with an organizational climate of trust.

During the jolt phase, an HPWS buffers the negative impact of a crisis, particularly by creating a climate of trust (Gittell et al., 2010; Siddique et al., 2019). As stated, an HPWS helps employees maintain positive expectations of management's and coworkers' ability, benevolence, and integrity (Dirks & Skarlicki, 2009; J. Y. Jiang & Liu, 2015). A trust climate enables employees to maintain optimistic prospects for their organizational life and regulate negative impacts within the normal range during the jolt (Elchereth & Drury, 2020; Gittell et al., 2006; H. W. Lee et al., 2019; J. Shin et al., 2012). A climate of trust motivates employees to uphold a positive outlook during disruptions (e.g., hope or gratitude; Slaughter et al., 2021). This climate affords employees to support management and others and take more concerted actions to respond to and ensure more effective social coordination to deal with crises (Colquitt et al., 2011). In addition, the perceived high level of managers' benevolence encourages employees to buffer the negative emotional impact of crises (Dunn & Schweitzer, 2005; Jones & George, 1998). Building on the foundation of trust in management, employees can unite their collective efforts to stabilize the organization amid a disruptive jolt. Thus, we predict that an HPWS helps to develop an organizational climate of trust and enhances stability through lowering the severity of loss during the jolt phase of a crisis.

Hypothesis 4a: An HPWS has a negative indirect relationship with the severity of loss through an organizational climate of trust during the jolt phase.

During the turnaround phase, the risk of failure escalates, as the efficacy of the new strategies has not yet been confirmed (Staw et al., 1981). Indeed, new ideas could even instigate another crisis (Weick, 1995). To navigate this uncertainty during the turnaround, employees require a positive social environment that fosters interpersonal flexibility and effectively manages potential conflicts. During times of opportunity, an HPWS fosters trust-based expectations in management and collaborative momentum for adjustment among employees (Evans & Davis, 2005; Kehoe & Collins, 2017; Macky & Boxall, 2007; Prieto & Pérez-Santana, 2014). Through building greater confidence in management's and colleagues' capabilities, an HPWS motivates employees to be actively supportive of their work and collaborative efforts (Gittell et al., 2010). Establishing a climate of trust can promote relational flexibility, allowing organizations to embrace internal adjustments while aiding in effectively managing conflicts that may arise because of these adjustments (Mishra & Spreitzer, 1998; Spreitzer & Mishra, 2002). Because employees trust the ability, integrity, and benevolence of their management and coworkers, they develop high confidence in their capability to navigate a new normal environment (Fainshmidt & Frazier, 2017). As management and coworkers prioritize employee well-being and growth, employees are better able to support organizational actions that may disrupt the status quo. This support can ultimately assist organizations to capitalize effectively on opportunities for recovery and future prosperity (Weber et al., 2022). Therefore, a heightened

trust climate encourages vulnerability among employees and enables them to go beyond the precrisis state during a turnaround (Jeong & Shin, 2019). Therefore, we posit the following:

Hypothesis 4b: An HPWS has a positive indirect relationship with the scale of recovery through an organizational climate of trust during the turnaround phase.

HPWS and an Organizational Climate of Innovation

An HPWS empowers employees to gain a clear understanding of an organization's visions, goals, and road maps, as well as collectively aligning their tasks for excellence and innovation (Li et al., 2018). As a result, an innovation climate emerges within the organization. First, participation practices—such as suggestion schemes, knowledge-sharing programs, or voluntary learning activities—enable employees to engage actively in information gathering, knowledge generation, and idea sharing (Bartram et al., 2014). Through heightened communication, employees are less prone to misconstrue shared goals, strategic plans, and established procedures. Furthermore, they are more inclined to develop a collective mental model and access a diverse spectrum of knowledge, resources, and incentives (Agarwal & Farndale, 2017; Newman et al., 2017). Availability of information and resources diminishes defensiveness and conflict within the organization (Edmondson, 1999) and mitigates personal risks when taking initiatives and pursuing creativity (Shalley et al., 2004). Performance-based pay, selective hiring, and intensive training motivate and afford employees to achieve higher standards of task performance and continued excellence (Y. Kim & Ployhart, 2014). Prior research suggests that performance-oriented HRM practices foster employee creativity and, ultimately, firm innovation (Liu et al., 2017). In summary, we expect that these foregoing practices coherently allow employees to participate in idea generation and implementation and that they are supported to perform at their best under the organization's vision (Li et al., 2018; Popa et al., 2017). Hence, an HPWS should foster a climate in which employees seek participation opportunities, support innovation, and are task oriented (Anderson & West, 1996, 1998). Thus, we hypothesize the following:

Hypothesis 5: An HPWS has a positive relationship with an organizational climate of innovation.

In the jolt phase, organizational members are limited in their cognitive functioning, which entails formulating a mental map of cause–effect and sharing ambiguous and previously undisclosed information with others (Drabek, 2005; Mitroff, 2005). When a jolt occurs, organizational members initially lack an understanding of optimal decisions and their results (Alvarez & Barney, 2010; Knight, 1921). Any unplanned action can heighten confusion and incite strife in the organization; thus, having a more detailed, accurate, and fine-grained understanding of the predicaments the organization faces is critical (Barton et al., 2015).

An organizational climate of innovation enables employees' cognitive agility, thus allowing them to further stabilize the process (Anderson & West, 1998; Newman et al., 2020). By cultivating a climate of innovation, an HPWS stimulates employees to make

sense of what is happening in the organization and act accordingly to deal with the situation (S. Chang et al., 2013; Way et al., 2018). In a climate of innovation, employees can integrate information and thus understand unfolding situations more quickly and precisely. Further, they can formulate strategies to minimize the impact of a jolt on task operations (Barton et al., 2015). Being aware of their organization's goals and being task oriented, employees will strive to understand how a crisis threatens the working process and how it can be realigned (Carver & Scheier, 1982; Giglioni & Bedeian, 1974). With encouragement and support for cognitively intensive efforts by their organization, employees can collectively navigate the causal maps of a crisis and generate ideas to buffer negative impacts during the jolt phase (Weick et al., 2005). Thus, we expect that an HPWS hones the sense-making process, thus reducing the severity of loss and consequently maintaining stability during the jolt phase. Therefore, we offer the following:

Hypothesis 6a: An HPWS has a negative indirect relationship with the severity of loss through an organizational climate of innovation during the jolt phase.

In the turnaround phase, organizations can take advantage of new business opportunities (Lengnick-Hall & Beck, 2005) through creativity (C. P. Chang et al., 2011; Hsu & Fan, 2010), innovation (Hsu & Chen, 2017; Park & Jo, 2018; Ren & Zhang, 2015), and knowledge sharing (Edú-Valsania et al., 2016). An HPWS fosters a climate of innovation (Do et al., 2018; Gahan et al., 2021) in which employees can collectively build and access organizational information and knowledge (Han et al., 2019). In this situation, employees can readily develop and access the resources needed for opportunity seeking (S. Chang et al., 2014). As such, knowledge-based collaborations among employees are facilitated to develop new and applicable ideas afforded from new opportunities during crises (Jeong & Shin, 2019; Magni et al., 2018). In so doing, an HPWS improves flexibility, adaptation, and realignment during the turnaround phase (Shanker et al., 2017).

We argue that a climate of innovation fosters the recovery process, which requires an array of new ideas (Alvarez & Barney, 2007, 2020; Barton et al., 2015; Rindova & Courtney, 2020); however, these ideas involve risk and uncertainty (Weick, 1995). An innovation climate ensures the required innovation process, which involves idea generation, selection, and implementation (West, 1990). With encouragement and support for innovation, employees can catalyze the collective development of new and useful ideas and alternative approaches (Amabile & Pratt, 2016; Somech & Drach-Zahavy, 2013). Vision and task-orientation provide shared goals, assumptions, values, and rules that regulate employees' solution space to the problem, thus making ideation more operationalizable for resilience and beneficial for performance enhancement (Harvey, 2014; Harvey & Ananth, 2021). Accordingly, an organizational climate of innovation balances the quantity and quality of ideas that can generate benefits during the turnaround phase (Agrell & Gustafson, 1994). Thus, we propose the following:

Hypothesis 6b: An HPWS has a positive indirect relationship with the scale of recovery through an organizational climate of innovation during the turnaround phase.

Method

Transparency and Openness

We describe our sampling plan, all data exclusions, manipulations, and measures in the study, and we adhere to the methodological checklist of the *Journal of Applied Psychology*. The data utilized in this study are publicly available, as detailed in our Research Sample section. Analysis codes are available from the corresponding author upon request. Data were analyzed using Mplus 8.4 (Muthén & Muthén, 2017) and STATA 17.0. The study design and analysis were not preregistered.

Research Sample

We used data from the Human Capital Corporate Panel (HCCP), a biennial survey that the Korean Research Institute for Vocational Education and Training conducts. This government-funded survey covers a wide range of industries, selecting participating firms through stratified random sampling based on industry and company size. It comprises two parts: the manager survey—which includes firm-level data on business strategies and HRM practices—and the employee survey—which provides worker-level data on perceived climates and experiences with HRM practices. Both surveys were utilized to measure our primary variables.¹

The HCCP includes various types of information about previous HRM practices, and we integrated this with financial metrics provided by the Korea Investor Service (KIS). To obtain the sales performance of our sample during the COVID-19 pandemic, we first examined a sample of 474 companies that participated in the HCCP 2017—the last wave before the pandemic. We identified the sample by matching it to the disclosed financial figures provided by the KIS. Of the total sample, 268 firms (249 firms were publicly traded, and 19 were unlisted but held a legal obligation to disclose financial reports) disclosed quarterly sales data during the pandemic. The remaining were unlisted on the stock market, so we could not obtain their quarterly sales data. Therefore, our sample comprised the foregoing 268 firms. For employee survey, a total of 6,132 responses from 268 firms were available; they were utilized for measuring organizational climates in our study. The HCCP employed a stratified sampling approach to ensure a well-balanced representation of participants in the employee survey.²

Compared to the original sample ($N = 474$), the sample of 268 firms tended to be older, $t(464.43) = 6.81, p < .01$, and larger in terms of the number of employees, $t(401.88) = 2.15, p < .05$. We examined whether our sample was representative of the population with respect to the industry. The industry distribution of our sample was not significantly different from that of the 2,408 listed companies accessible in the KIS, $t(21) = 0, p > .05$. Although some industries showed an increase in sales performance during the pandemic, we included all industries in our sample because the resilience outcome of each firm varied within the same industry.³

Measurement

HPWS

To measure an HPWS, we identified the core practices within six HR areas: selective hiring, intensive training/development, rigorous performance appraisal, competitive pay, pay-for-performance, and

employee participation (Beijer et al., 2021; Boon et al., 2019; Posthuma et al., 2013) in the manager survey of the HCCP. Per extant work (K. Kim, Ok, et al., 2021), *selective hiring* was assessed using a measure of extensive selection and recruitment efforts: the selection ratio of the number of hired employees to the total number of applicants (Y. Kim & Ployhart, 2014). *Intensive training/development* was captured utilizing the ratio of total expenditure on training to labor costs (Ryu & Kim, 2013). *Rigorous performance appraisal* was measured based on the number of appraisal practices implemented—such as a balanced scorecard, management by objectives, performance reviews, leadership skill assessments, and multisource 360-degree feedback (K. Kim, Ok, et al., 2021). *Competitive pay* was assayed with the level of payment relative to competitors. *Pay-for-performance* was measured employing the number of incentive programs implemented—including individual incentives, team-based incentives, business-unit-based incentives, firm-level incentives, and profit sharing (K. Kim, Ok, et al., 2021). *Employee participation* was captured with the number of participation-enhancing practices implemented—such as suggestion schemes, knowledge-sharing programs, and voluntary job rotations (A. Kim et al., 2017). Because these aforementioned six measurements had different scales, we standardized them when generating an additive index for an HPWS (K. Kim, Ok, et al., 2021; S. J. Shin et al., 2018). Shown in Table 1 are the study variables and their measurements.

Organizational Climate of Trust and Climate of Innovation

We measured *organizational climate of trust* using five items from the employee survey of the HCCP; the five reflected the ability, benevolence, and integrity dimensions (Collins & Smith, 2006; Mayer & Davis, 1999). Following Collins and Smith (2006), we used the employee survey's trust items and aggregated them into an organizational-level climate. We selected five items for two specific referents: three pertained to employees' trust in management, and the other two dealt with trust with coworkers. Respondents rated the items on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*; Cronbach's $\alpha = .82$), which were aggregated to the organizational level. We calculated intraclass correlations (ICCs) and within-group agreements to check the appropriateness of

¹ Previous studies, such as those by K. Y. Kim et al. (2016) and Y. Kim and Ployhart (2014), have made use of the HCCP data set. For additional details on the HCCP data set and a comprehensive list of earlier research that has utilized this data, please refer to the Data Transparency Table available at https://osf.io/jzqns/?view_only=11782c653d2d48cd8f29cbca4808a1dd.

² The HCCP employed a stratified sampling approach to ensure a well-balanced representation of participants in the employee survey. To this end, the number of staff employees and leaders were determined separately by considering the distribution of hierarchical positions within the organization. The data also included participants from multiple teams belonging to various functional work groups (e.g., administrative, research and development, sales, and production departments) and at least four team members from each team. This method resulted in a diverse pool of participants, comprising seven to 15 managers and 12–41 employees, depending on the total number of employees in each organization.

³ For instance, although the software and information technology service industry experienced sales growth (i.e., an overall 2.5% increase) in the jolt period, six of the 14 firms (i.e., 42.9%) experienced a loss and had a standard deviation for the severity of the loss of 20.56. These findings infer that the COVID-19 pandemic actually disrupted some firms even in this prosperous industry.

Table 1
Description of Variables

Variable	Description	Source
Research variables		
Organizational resilience: Severity of loss	<i>Multilevel path analysis</i> : [(Lowest sales among any quarters in 2020 (T) – sales in two quarters before T (T – 2))/sales in two quarters before T (T – 2)] × –1	KIS
Organizational resilience: Scale of recovery	<i>RCGM</i> : The estimated slope of quarterly sales during the T – 2 to T <i>Multilevel path analysis</i> : (Sales in the same quarter in 2021 (T + 4) – lowest sales among any quarters in 2020 (T))/lowest sales among any quarters in 2020 (T) <i>RCGM</i> : The estimated slope of quarterly sales during the T to T + 4	KIS
HPWS	Additive index of the following six HRM practices	HCCP manager survey
Selective hiring	The extensive selection and recruitment efforts; the selection ratio of the number of hired employees to the total number of applicants	
Intensive training	The ratio of total expenditure on training to labor cost	
Performance management	The number of implemented appraisal practices (i.e., a balanced scorecard, management by objectives, a performance review, a leadership skill assessment, multisource 360-degree feedback)	
Competitive pay	The relative pay level compared to competitors	
Pay-for-performance	The number of incentive programs implemented (i.e., individual incentives, team-based incentives, business-unit-based incentives, firm-level incentives, and profit sharing)	
Employee participation	The number of participation-enhancing practices implemented (i.e., suggestion schemes, knowledge-sharing programs, and voluntary job rotation)	
Climate of trust	Five items for two trust referents to capture (1) ability (i.e., management and coworker), (2) benevolence (management), and (3) integrity (management and coworker)	HCCP employee survey
Climate of innovation	Three items to capture (1) psychological safety for innovation, (2) practical support, and (3) task-orientation	HCCP employee survey
Control variables		
Firm age	Years since the firm was established	HCCP manager survey
Firm size	Natural logarithm of the number of total employees	HCCP manager survey
Prior market performance	3-year average <i>sales growth</i> and natural logarithm of <i>sales in 2019</i>	KIS

Note. T = time; KIS = Korea Investor Service; RCGM = random coefficient growth model; HPWS = high-performance work system; HRM = human resource management; HCCP = Human Capital Corporate Panel.

aggregating employee-level data into organization-level data. The index showed a high level of agreement within an organization and between-organization differences, ICC (1) = .13, ICC (2) = .77, median r_{wg} = .94, thus justified our aggregation.

We measured *organizational climate of innovation* using three items also from employee survey; the three reflected subdimensions of the climate of innovation: participative safety, support for innovation, and task-orientation (Anderson & West, 1998; Newman et al., 2020). Individuals responded to these three items on a 5-point Likert scale (Cronbach's α = .84). As above, finding acceptable levels of ICCs and within-organization agreement, ICC (1) = .15, ICC (2) = .80, median r_{wg} = .90, we aggregated the data at the organizational level. The aggregated employee ratings constituted our organizational climate of innovation measure.

To ensure the robustness of our measurement, we conducted a meticulous review for the selected items. This review involved four subject matter experts—two researchers working independently in the field of organizational behavior, along with two business practitioners specializing in organizational climate consulting. Following Hinkin and Tracey (1999), we presented these experts with definitions of each construct and the corresponding items. The experts were then asked to rate the consistency of each item with its respective construct definition using a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*). We calculated the Hinkin Tracey correspondence (*htc*) measure for each item, the results of which are presented in Appendix. The *htc* value was computed by

dividing the average definitional correspondence rating by the number of anchors on the Likert scale. A higher *htc* value indicates a strong representation of the construct, with one signifying unanimous agreement among the judges. Our items for organizational climates exhibited an *htc* range from .85 to 1.00, suggesting a high level of correspondence with each climate's definition (Colquitt et al., 2019).

Organizational Resilience: Severity of Loss and Scale of Recovery

To assess resilience, we used the quarterly sales of organizations. Although profits in crises may be attributed to business retrenchment (Wenzel et al., 2021), sales directly capture the performance that the external condition (i.e., the COVID-19 pandemic here) induced and reflects the outcome of managerial decisions made to respond to it (Han et al., 2019). We tracked the quarterly sales of the sample companies. In general, our data revealed a V-shaped change in sales performance during the COVID-19 pandemic. The crisis-driven pattern of sales before and after the nadir was fundamental for our conceptualization of the jolt and turnaround phases of organizational responses (Turner, 1976). In particular, the lowest point of sales may have varied across firms, as they could have had different sales structures (e.g., a longer time-bound of the value chain in the heavy equipment and infrastructure sectors). Given the observed pattern of global economic impacts, we identified that the *jolt period* encompassed the two consecutive quarters preceding

the lowest point of quarterly sales in 2020 (referred to as “ $T - 2$ to T ,” with “ T ” denoting the lowest sales quarter). The *turnaround period* covered four consecutive quarters *after* the lowest point of quarterly sales in 2020 (referred to as “ T to $T + 4$ ”).

Because we used two statistical models, we operationalized the severity of loss and scale of recovery so that they fit different analytical strategies. We conceptualized the *severity of loss* as a plunge and as a trajectory of a decrease in the plunge in sales over time. In multilevel path analysis, the severity of loss was measured as the percentage change in quarterly sales between the comparison point—the lowest point of postcrisis quarterly sales (T)—and the sales figure from two quarters earlier ($T - 2$) during the COVID-19 pandemic. The difference rate was multiplied by -1 to reflect that a higher value indicated a more serious loss impact of the crisis. In addition, to capture the severity of the loss as the trajectory of decrease over time during the jolt period, we used discontinuous RCGM (Y. Kim & Ployhart, 2014). To ensure consistency in our time window, we calculated the slope of quarterly sales during the same period used for multilevel path analysis. We identified a steeper descending slope as a severe loss.

We conceptualized the *scale of recovery* as an upsurge and as a trajectory of increase in sales over time. In multilevel path analysis, the scale of recovery was measured using each organization’s percentage change in sales between the lowest point of postcrisis quarterly sales (T) and the sales figure from four quarters later ($T + 4$). Higher values reflected a higher scale of recovery in quarterly sales. In addition, to capture the scale of recovery as the trajectory of increase in sales over time during the turnaround period, we used the discontinuous RCGM (Y. Kim & Ployhart, 2014). To maintain consistency within our time frame, we computed the slope of quarterly sales for the same period used in multilevel path analysis. We identified that the steeper ascending slope had a greater recovery.

Control Variables

To rule out alternative explanations, we included several control variables in the analysis. First, we controlled for *firm age*, as new and less mature organizations can be more vulnerable to sudden shocks; those having a long history and reputation may be protected from such shocks owing to their maturity and favorable reputation (Carvalho & Areal, 2016). Second, we controlled for *firm size* using the natural log-transformed number of employees (Han et al., 2019). Lai et al. (2016) found that small firms (i.e., fewer than 50 employees) are less effective in responding to economic downturns. Third, we included *prior market performance*—operationalized as 3-year average sales growth—and natural log-transformed sales in 2019 as controls in our model (Ortiz-de-Mandojana & Bansal, 2016; Wayhan & Werner, 2000).

Organizational resilience varies across industries, as shown in Table 2. Consequently, we considered the potential industry effects in our model. Therefore, we ruled out potential industry resilience situations by controlling for the *industry average values* of our dependent variables. In multilevel path analysis, we regressed between-level dependent variables (i.e., severity of loss and scale of recovery) on their industry average values. In the RCGM, we controlled for the industry average sales of each quarter as time-varying covariates. Because we identified the jolt and turnaround phases *individually*—thus acknowledging that the COVID-19 pandemic likely affected firms at different times—we included

dummy variables in the RCGM to distinguish firms that reached their lowest points (T) in the first, second, third, and fourth quarters of 2020. Furthermore, considering the potential impact of the severity of loss on the scale of recovery—that is, a firm that experienced a more severe loss may have had greater potential for a significant rebound—we controlled for the severity of loss in the scale of recovery in multilevel path analysis.

Analytical Strategy

This study demonstrated the resilience process using two advanced techniques: multilevel path analysis and discontinuous RCGM. First, using multilevel path analysis, we intended to capture the severity of loss as a plunge during the jolt and the scale of recovery as an upsurge during the turnaround (DesJardine et al., 2019). In this model, we focused on within-industry variances, considering the heterogeneous experience of the COVID-19 pandemic across sectors by structuring the data as firms (Level 1) nested in 22 industries (Level 2). We separated the within- and between-industry variances using multilevel analysis technique (Preacher et al., 2010). In so doing, we attempted to account for resilience within industries. Covariates at the firm level were group mean-centered (Hofmann & Gavin, 1998).

In addition, we conducted an RCGM to demonstrate the severity of loss and scale of recovery as the trajectory of quarterly sales over time in the jolt and turnaround phases. Because our definition of resilience encompassed discontinuous sales changes in the jolt and turnaround phases, discontinuous RCGM—which examines two distinctive slopes from within-firm variance—was an appropriate model for this study. An RCGM captures the systematic changes in the focal variable over time, including linear, quadratic, or discontinuous patterns (Hale et al., 2016; Y. Kim & Ployhart, 2014). This approach aligns with our objective: examining the role of an HPWS in the temporal dynamics of organizational resilience, particularly during and after a crisis. In the discontinuous RCGM, we estimated the slopes of sales that changed over time in each phase (i.e., one for the jolt and the other for the turnaround phase). We estimated the model using full information maximum likelihood for handling missing data. For both multilevel path analysis and the RCGM, we tested the indirect effects of an HPWS on the severity of loss and scale of recovery using the Monte Carlo bootstrapping approach (Selig & Preacher, 2008) with 20,000 iterations to calculate 95% confidence intervals.

Results

Presented in Table 3 are the means, standard deviations, and intercorrelations of the study variables. Average firm age was 43.62 years, and the mean number of employees for the firms was 840.65. The average severity of loss was 21.92, and the mean scale of recovery was 37.34. In other words, on average, the sample firms experienced a 21.92% sales drop during the jolt phase of the COVID-19 pandemic but a 37.34% sales increase during the turnaround phase.

Results of the Multilevel Path Analysis

Shown in Table 4 are the findings of multilevel path analysis. Hypothesis 1 posited a negative relationship between an HPWS and

Table 2*Company Distribution and Resilience Outcomes Across Industries*

Industry	Listed firms in KIS			Our sample firms in HCCP		
	<i>N</i> (%)	Severity of loss	Scale of recovery	<i>N</i> (%)	Severity of loss	Scale of recovery
Energy	17 (0.71)	38.3	83.3	1 (0.37)	20.0	91.3
Materials	342 (14.20)	7.8	35.3	60 (22.39)	19.5	28.4
Capital goods	348 (14.45)	4.2	14.7	47 (17.54)	23.4	29.3
Commercial and professional services	28 (1.16)	−0.1	3.8	3 (1.12)	27.2	26.8
Transportation	34 (1.41)	22.7	48.5	1 (0.37)	38.0	30.6
Automobiles and components	132 (5.48)	15.7	26.0	24 (8.96)	23.8	35.4
Consumer durables and apparel	112 (4.65)	4.8	8.8	18 (6.72)	21.7	49.0
Consumer services	43 (1.79)	35.5	43.0	5 (1.87)	44.7	116.0
Media	82 (3.41)	23.8	13.0	7 (2.61)	22.9	28.2
Retailing	71 (2.95)	7.8	4.0	4 (1.49)	9.7	66.8
Food, beverages, and tobacco	99 (4.11)	4.2	6.1	11 (4.10)	12.1	8.9
Household and personal products	39 (1.62)	14.7	24.0	1 (0.37)	14.4	31.3
Health care equipment and services	63 (2.62)	−8.8	64.9	2 (0.75)	−5.7	22.9
Drugs and biotechnology	201 (8.35)	−2.4	7.2	11 (4.10)	14.1	19.0
Financials	67 (2.78)	40.3	127.4	3 (1.12)	13.9	14.7
Banking	4 (0.17)	55.9	97.3	4 (1.49)	41.1	57.0
Diversified financials	125 (5.19)	−19.9	26.5	12 (4.48)	22.9	64.1
Insurance	15 (0.62)	−5.5	1.8	4 (1.49)	−0.5	−1.5
Software and services	201 (8.35)	−6.6	15.2	14 (5.22)	24.3	13.1
Hardware and equipment	262 (10.88)	12.0	26.2	23 (8.58)	38.3	90.2
Semiconductors	114 (4.73)	−4.9	22.4	12 (4.48)	5.7	33.9
Telecommunications	9 (0.37)	1.1	2.9	1 (0.37)	24.7	19.6
Average		19.3	31.9		24.5	39.8
Observations	2,408 (100)			268 (100)		

Note. KIS = Korea Investor Service; HCCP = Human Capital Corporate Panel.

severity of loss; in model 1 in Table 4, the coefficient was negative ($B = -5.39$, $SE = 2.58$, $p = .04$), thus supporting Hypothesis 1 in the multilevel path analysis. Hypothesis 2 proposed a positive association between an HPWS and the scale of recovery; and the same model revealed a positive coefficient, but it was not significant ($B = 5.95$, $SE = 5.91$, $p = .31$). Thus, Hypothesis 2 did not receive support.

Hypothesis 3 asserted a positive association between an HPWS and the climate of trust. Model 2 in Table 4 manifested positive and significant coefficients of the HPWS for the climate of trust ($B = .15$, $SE = .06$, $p = .01$), hence lending support to Hypothesis 3. Hypothesis 4a proposed a negative indirect relationship between an HPWS and the severity of loss via the climate of trust; Hypothesis 4b posited a positive indirect relationship between an HPWS and the

scale of recovery via the climate of trust. As indicated in the same model, the findings revealed a negative coefficient of the climate of trust on the severity of loss ($B = -16.02$, $SE = 6.59$, $p = .02$). The indirect effect proposed in Hypothesis 4a was significant, with an estimated value of -2.56 ; 95% confidence interval (CI $[-6.50, -.14]$); therefore, Hypothesis 4a was confirmed. However, the coefficient of the climate of trust on the scale of recovery was not significant ($B = -3.63$, $SE = 10.80$, $p = .74$). As such, Hypothesis 4b was rejected.

Hypothesis 5 proposed a positive relationship between an HPWS and the climate of innovation. As indicated in Model 2 in Table 4, the coefficient of the HPWS on the climate of innovation was significant ($B = .23$, $SE = .06$, $p = .00$), thus lending support to Hypothesis 5. Hypothesis 6a posited a negative indirect relationship

Table 3*Means, Standard Deviations, and Correlations*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Firm age	43.62	17.34	—								
2. Firm size	5.93	1.09	.16*	—							
3. Sales growth	7.18	30.24	−.04	−.16*	—						
4. Prior sales (2019)	5.27	1.46	.17*	.78*	.03	—					
5. HPWS	−0.02	0.52	.03	.45*	−.06	.46*	—				
6. Climate of trust	3.46	0.35	−.03	.26*	.07	.30*	.34*	—			
7. Climate of innovation	3.43	0.40	−.06	.22*	.09	.29*	.39*	.68*	—		
8. Severity of loss	21.92	24.86	−.00	−.03	−.04	−.05	−.10	−.10	−.07	—	
9. Scale of recovery	37.34	60.94	−.11	−.02	−.03	.00	.03	.07	.09	.35*	—

Note. $N = 268$. Industry 1 = manufacturing, Industry 2 = finance, Industry 3 = information technology and media. The correlation between the climate of trust and the climate of innovation was computed from individual-level data. HPWS = high-performance work system.

* $p < .05$ (two-tailed).

Table 4
Multilevel Path Analysis Results

Variable	Model 1				Model 2							
	Severity of loss		Scale of recovery		Climate of trust		Climate of innovation		Severity of loss		Scale of recovery	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Firm level												
HPWS	−5.39*	2.58	5.95	5.91	.15*	.06	.23*	.06	−5.68	3.07	2.73	5.67
Climate of trust									−16.02*	6.59	−3.63	10.80
Climate of innovation									11.12	5.94	17.38*	6.88
Firm age	1.71*	.49	−4.08	3.21	−.03*	.01	−.04*	.01	1.70*	.63	−3.46	3.05
Firm size	−2.08	1.75	−5.86	7.11	.04*	.02	.02	.03	−1.71	1.57	−5.63	7.25
Sales growth	−.10*	.05	−.10	.10					−.11*	.04	−.11	.10
Prior sales (2019)	.30	1.45	2.98	4.98					.49	1.56	2.50	5.03
Severity of loss			.82*	.34							.81*	.32
Industry level												
Industry severity of loss	.23*	.11							.23*	.16		
Industry scale of recovery			.09	.17							.08	.18
Total Pseudo- R^2	.02		.06		.20		.27		.06		.10	

Note. $N = 268$ (firm level), $N = 22$ (industry level). Firm age was divided by 10 to adjust the scale. Pseudo R^2 was computed following Snijders and Bosker (2012). Unstandardized coefficients and standard errors are reported. SE = standard error; HPWS = high-performance work system.

* $p < .05$ (two-tailed).

between an HPWS and the severity of loss via the climate of innovation during the jolt phase of a crisis. However, the coefficient of the climate of innovation on the severity of loss was not significant ($B = 11.12$, $SE = 5.94$, $p = .06$); therefore, Hypothesis 6a was rejected. Hypothesis 6b suggested a positive indirect relationship between an HPWS and the scale of recovery through the climate of innovation. The same model showed that the coefficient of the climate of innovation on the scale of recovery was significant ($B = 17.38$, $SE = 6.88$, $p = .01$). The indirect effect was significant with an estimated value of 4.04 (95% CI [.76, 8.43]). As such, Hypothesis 6b was confirmed.

Results of the Discontinuous RCGM Analysis

First, we conducted the unconditioned discontinuous growth model. We generated time variables: one for the estimation of the trajectory during the jolt period (Time 1) and the other for the trend during the turnaround period (Time 2).⁴ We estimated the slopes of these time variables by regressing quarterly sales on them. The results showed that the mean of the random coefficient of Time 1 was -1.10 ($SE = .31$, $p = .00$), suggesting that quarterly sales decreased over time in the jolt phase. Moreover, the results revealed that the mean of the random coefficient of Time 2 was $.70$ ($SE = .25$, $p = .01$), indicating an increase over time in quarterly sales during the turnaround phase.

Second, we conducted a discontinuous RCGM, the results of which are presented in Table 5 concerning the hypothesized relationships. As shown in Model 1 in Table 5, the interaction between the HPWS and Time 1—which denoted the impact of the HPWS on changes in sales (i.e., severity of loss) during the jolt phase, as proposed in Hypothesis 1—was not significant ($B = .01$, $SE = .08$, $p = .94$). This finding was different from the results from our multilevel path analysis. Hypothesis 2 proposed a relationship between the HPWS and the scale of recovery. The interaction between the HPWS and Time 2 in the same model was also not significant ($B = .12$, $SE = .08$, $p = .14$), thereby rejecting Hypothesis

2. Hypothesis 3 posited a positive relationship between an HPWS and the trust climate. As shown in Model 2 in Table 5, the coefficient was significant and positive ($B = .20$, $SE = .07$, $p = .00$), hence confirming Hypothesis 3.

Hypothesis 4a asserted a negative indirect relationship between the HPWS and the severity of loss via the trust climate; Hypothesis 4b proposed a positive indirect relationship between the HPWS and the scale of recovery via the climate of trust. The interaction term of Time 1 and the climate of trust was significantly associated with quarterly sales ($B = 2.40$, $SE = 1.15$, $p = .04$), as shown in Model 2 of Table 5. To interpret the interactive effect of the climate of trust with Time 1 on quarterly sales, an increase of 1 SD in the climate of trust corresponded to a .75 elevation in the slope during the jolt phase, thus indicating that the climate of trust helped organizations notably reduce the severity of loss in quarterly sales over time during the jolt phase. The bootstrapped estimation of the indirect effect was significant, with an estimated value of .48 (95% CI [.06, 1.28]). Thus, Hypothesis 4a received support. The interaction coefficient of Time 2 with the climate of trust on quarterly sales was not significant ($B = -1.21$, $SE = .75$, $p = .11$). Accordingly, Hypothesis 4b was rejected.

Hypothesis 5 proposed a positive association between an HPWS and the climate of innovation. The results of Model 2 in Table 5 revealed a positive coefficient of HPWS on the climate of innovation ($B = .29$, $SE = .07$, $p = .00$), supporting Hypothesis 5. Hypothesis 6a posited an indirect relationship between the HPWS and the severity of loss via the climate of innovation during the jolt phase. The interaction term of Time 1 and the climate of innovation was not

⁴ We constructed the sales from two quarters prior to the point of lowest sales in 2020 (i.e., the jolt phase) and from four quarters after the lowest point (i.e., the turnaround phase). In the Time 1 variable, the increasing numbers for the jolt phase (i.e., the previous two quarters and the lowest point) were coded (i.e., 0, 1, 2), and the nongrowing numbers for the remaining quarters were coded (i.e., 2, 2, 2, 2). In the Time 2 variable, constant numbers were coded until the lowest point of quarterly sales appeared and the growing numbers for the turnaround phase were coded (i.e., 0, 0, 0, 1, 2, 3, 4).

Table 5
Discontinuous Random Coefficient Growth Model Results

Variable	Model 1		Model 2					
	Quarterly sales		Climate of trust		Climate of innovation		Quarterly sales	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Within firm								
Time 1	-.87*	.32					-.83*	.37
Time 2	.09	.32					.13	.33
Industry average sales	.33*	.13					.32*	.13
Between firm								
HPWS	-.20	.72	.20*	.07	.29*	.07	-3.36	5.63
Climate of trust							-7.26	6.84
Climate of innovation							11.82	8.25
Firm age	.19	.91	-.01	.01	-.02	.01	.03	.95
Firm size	9.28*	3.82	.03	.03	.01	.03	8.89*	4.01
Prior market performance	12.86*	2.72					13.65*	2.5
Quarter 1 lowest	4.26	4.07					3.90	3.98
Quarter 2 lowest	2.72	4.52					2.40	4.25
Quarter 3 lowest	6.65	4.49					5.78	4.50
Cross-level interaction								
Time 1 × HPWS	.01	.08					.43	.56
Time 1 × Climate of Trust							2.40*	1.15
Time 1 × Climate of Innovation							-1.86	1.50
Time 1 × Quarter 1 Lowest	-.40	.73					-.64	.76
Time 1 × Quarter 2 Lowest	.04	.47					.01	.46
Time 1 × Quarter 3 Lowest	-.88	.88					-.78	.77
Time 2 × HPWS	.12	.08					.22	.40
Time 2 × Climate of Trust							-1.21	.75
Time 2 × Climate of Innovation							1.43*	.70
Time 2 × Quarter 1 Lowest	.26	.32					.34	.34
Time 2 × Quarter 2 Lowest	.77	.48					.72	.43
Time 2 × Quarter 3 Lowest	-.17	.55					-.34	.59
Total Pseudo- R^2	.70		.15		.20		.71	

Note. $N = 1,876$ (within firms); $N = 268$ (between firms). Time 1 denotes the estimation of the slope for the jolt phase; Time 2 denotes the estimation of the slope for the turnaround phase. Firm age was divided by 10 to adjust the scale. Pseudo R^2 was computed following Snijders and Bosker (2012). Unstandardized coefficients and standard errors are reported. SE = standard error; HPWS = high-performance work system.

* $p < .05$ (two-tailed).

significantly related to quarterly sales ($B = -1.86$, $SE = 1.50$, $p = .22$); thus, Hypothesis 6a was not supported. Hypothesis 6b asserted the indirect effects of the HPWS on the scale of recovery via the climate of innovation. The interaction between Time 2 and the climate of innovation significantly influenced sales growth during the turnaround phase ($B = 1.43$, $SE = .70$, $p = .04$). This finding indicated that a 1 SD increase in the climate of innovation contributed to a .30 increase in the slope during the turnaround phase. The indirect effect was significant, with an estimated value of .41 (95% CI [.04, .92]). Accordingly, Hypothesis 6b received support.

Illustrated in Figure 2 are the trends of quarterly sales at high and low levels ($M \pm 1 SD$) of the climate of trust during the jolt phase. Depicted in Figure 3 are the trends of quarterly sales at high and low levels of the climate of innovation during the turnaround phase.

Treatment of Endogeneity

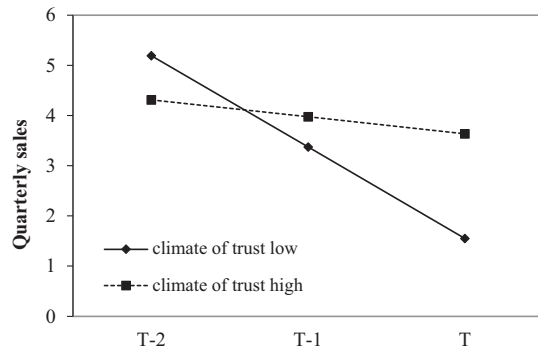
Our research model involved potential endogeneity in which some omitted confounding variables might have distorted the causal relationships between HPWS and the resilience process—particularly during the jolt phase. Similarly, the relationship between HPWS and climates could also have been affected. To address endogeneity, we

applied a two-stage least squares (2SLS) model using two instrumental variables. A valid instrument satisfies the following conditions: (a) It is correlated with the variable of interest in our models (HPWS), and (b) it is not correlated with the error term in the dependent variables (Murray, 2006). We selected two instruments, foreign investment and electronic human resource management (e-HRM).

We used *foreign investment* as our *primary* instrument, focusing on whether firms received foreign investment before the pandemic. Foreign-owned or firms receiving foreign investment tend to adopt best HRM practices—such as HPWS—which international standards are prone to influence (Bae et al., 2003). However, foreign investment is less directly linked to fostering climates of trust and innovation, as they depend more on internal interaction processes. Trust is built through day-to-day interactions and communication rather than being solely influenced through the ownership structure of the organization (Mayer et al., 1995). Although foreign-owned or firms receiving foreign investment may introduce policies promoting innovation, effective implementation is shaped through an organization's culture and values (Bromley & Powell, 2012). The impact of foreign investment on severity of loss is complex. Financial investment can provide financial slack (Gittel et al., 2006), but the pandemic-induced global economic disruptions led

Figure 2

Trajectory of Quarterly Sales at Different Levels of Climate of Trust in the Jolt Phase



Note. T = time.

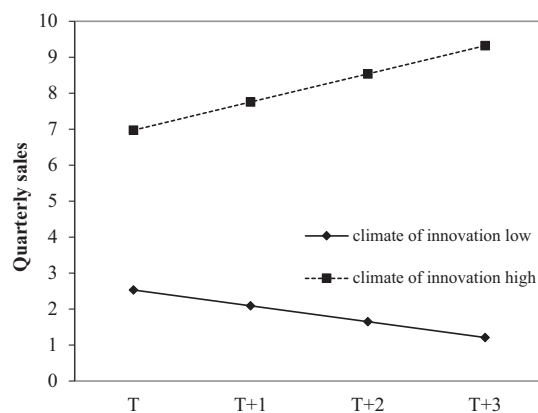
some investors to withdraw their capital, posing challenges for firms heavily reliant on foreign investment (S. Lee, 2022).

For the *second instrument*, we used *e-HRM*, which refers to the extent to which organizations advance information systems to support HRM-related administrative routines. *e-HRM* is firms' investment in technology to support HRM systems, thus it can be correlated with the implementation of an HPWS (L'Écuyer & Raymond, 2020). However, *e-HRM* does not necessarily help companies cultivate a favorable climate or prevent losses following a major crisis. This is because *e-HRM* is used to support the administrative routines for HPWS implementation instead of taking the initiative to address unexpected problems.

We examined the exogeneity of the instruments to severity of loss using the Sargan test. The Sargan–Hansen statistic ($\chi^2 = 1.37$, $p = .24$) indicated that our instruments were uncorrelated to the error term of our dependent variable. In 2SLS with two instruments, we modeled the heteroskedasticity of the error term, under the assumption of within-industry correlations. We found that both instruments had significant associations with the HPWS in the first-stage model (foreign investment, $B = .16$, $SE = .05$, $p = .01$;

Figure 3

Trajectory of Quarterly Sales at Different Levels of Climate of Innovation in the Turnaround Phase



Note. T = time.

e-HRM, $B = .09$, $SE = .03$, $p = .00$). In the second-stage model, we estimated the severity of loss by replacing the HPWS with *instrumented HPWS*, which is the estimated coefficient vector from the first regression. The results revealed that the HPWS remained significant in the second stage ($B = -23.05$, $SE = 11.61$, $p = .04$).⁵

We also conducted two sets of 2SLS analyses to examine the relationship between the HPWS and climates. The Sargan–Hansen statistics for the climate of trust and innovation were $\chi^2 = .06$ ($p = .81$) and $\chi^2 = .03$ ($p = .87$), respectively, indicating that the suggested instruments were uncorrelated with the error terms. The first-stage models revealed a positive relationship between the two instruments and the HPWS. Furthermore, the second-stage models demonstrated that the HPWS remained statistically significant even after being instrumented (climate of trust: $B = .37$, $SE = .16$, $p = .02$; climate of innovation: $B = .57$, $SE = .25$, $p = .02$).

Robustness Checks

We examined alternative models to test the robustness of our analysis. The impact of the COVID-19 pandemic varied across industries. For example, the pandemic had devastating impacts on the tourism and restaurant industries while accelerating digital transformation and e-commerce growth (Jacobides & Reeves, 2020). We analyzed the industry sales trajectory using a broader sample available in the KIS database: quarterly sales of 2,408 listed firms (shown in Table 2). Our data revealed that the pandemic affected the average sales of four industries—food, beverages, and tobacco; health care equipment and services; drugs and biotechnology; and semiconductors—to a lesser extent than other sectors. We tested our model without sample firms in these industries; however, the results remained identical.

In addition, we attempted to replicate precisely the measurements that DesJardine et al. (2019) reported. They conceptualized flexibility resilience as the time to recovery: the time taken until monthly stock prices reached the precrisis level. Adapting their operationalization, we counted the quarters sales took to reach prepandemic sales (i.e., sales in the fourth quarter of 2019). This ranged from one to eight quarters (i.e., we coded 9 for firms that had not recovered in 2 years). The average recovery time was 3.87. We used this variable in our original multilevel path analysis model by replacing the scale of recovery. Consistent with our previous analysis, the climate of innovation was negatively related to the time to recovery ($B = -1.58$, $SE = .72$, $p = .03$), indicating that it facilitated recovery speed. This finding supported our main idea that the climate of innovation was positively related to the recovery of resilience.

Discussion

In this study, we theorized and tested how an HPWS shaped a resilience process during the COVID-19 pandemic. We found that an HPWS helps organizations reduce the severity of loss through building a climate of trust during the jolt phase. An HPWS also increases the scale of recovery through an augmented climate of innovation during the turnaround phase. In addition, the climate of innovation facilitates the speed of recovery.

⁵ The 2SLS analysis results are available at https://osf.io/jzqns/?view_only=11782c653d2d48cd8f29cbca4808a1dd.

Implications for Theory and Research

To enhance understanding of the role of HRM systems in organizational resilience, adopting a temporal perspective, we conceptualized organizational resilience as a process (Raetze et al., 2022). The static concept of resilience (e.g., Connor & Davidson, 2003; Smith et al., 2008) has failed to capture how resilience unfolds at different phases. Indeed, resilience is a situation-specific phenomenon (Ebadi et al., 2019). As such, specifying the context of a crisis event to examine how organizations respond to attain a positive outcome is essential (e.g., the 9/11 terrorist attack, Gittell et al., 2006; the Great Recession in 2008, Carvalho & Areal, 2016; Y. Kim & Ployhart, 2014). Instead of observing resilience with a long-term change pattern of profitability (e.g., 15 years, Ortiz-de-Mandojana & Bansal, 2016), we considered the short-term impacts of a crisis. In doing so, we investigated how organizations with an HPWS respond to the distinctive phases of a crisis in a timely manner (Raetze et al., 2022).

Specifically, we identified the two properties of organizational resilience (i.e., stability and flexibility) that HRM systems can drive, per the two distinctive phases of a crisis (DesJardine et al., 2019). We specified the COVID-19 pandemic as the context of resilience, in which business loss was reduced through absorbing disturbances (i.e., stability) during the jolt phase and through adapting to the new environment and searching for opportunities (i.e., flexibility) during the turnaround phase. This phased approach—which is derived from the crisis literature (Roux-Dufort, 2007; Williams et al., 2017), afforded accounting for the critical mechanisms of an organizational resilience process. Stability during the jolt phase requires a strong climate of trust through which individuals collectively reduce potential confusion or conflicts and coordinate collective damage control efforts. Flexibility during the turnaround phase occurs through a climate that encourages innovation. Our notion of resilience also extends the crisis literature, which “tend(s) to be problem-focused rather than generative or opportunity-seeking” (James et al., 2011, p. 459). A problem-driven approach may be useful for analyzing crisis-resolution processes, but it narrows the range of conceptual contributions (Dutton & Jackson, 1987; James et al., 2011). We focused not only on a problem-focused, reactive resilience process (i.e., stability during the jolt phase), but also on an opportunity-seeking, generative resilience process (i.e., flexibility during the turnaround phase). Our doing so provides a more balanced and nuanced understanding of crisis management and the resilience process.

In particular, we theorized and tested the distinctive mechanisms (i.e., organizational climates of trust and innovation) that connect an HPWS to resilience (Lengnick-Hall et al., 2011). Resilience literature has investigated policies and practices contributing to resilience, such as layoffs (Cook et al., 2016; Gittell et al., 2006), selection and training (Y. Kim & Ployhart, 2014), relational work practices (Gittell, 2008), social and environmental practices (DesJardine et al., 2019; Ortiz-de-Mandojana & Bansal, 2016), and organizational slack (Gittell et al., 2006; Lai et al., 2016). However, these studies lacked sufficient empirical investigation on *how* the contribution was made in the view of HRM systems. We examined how an HPWS enables organizations to engage in timely and effective responses for resilience during crises. Prior research has predominantly focused on the economic benefits of HRM practices in static environments (for an exception, see S. Chang et al., 2022). As such, we extended strategic HRM research to an adverse dynamic context, showing that an

HPWS enables a firm to stabilize performance, recover, and even prosper during an exceptionally dynamic, inimical situation. Our focus on organizational resilience provides a unique way to test a key tenet of strategic HRM theory and research: HRM systems offer a source of competitive advantage. We empirically operationalized and tested resilience by estimating the changes in the quarterly sales of firms during the COVID-19 pandemic. The extent of performance change was captured in how effectively an organization maintained its performance during the jolt phase and achieved recovery and even growth in the turnaround phase.

Our findings also extend the strategic HRM research on the role of an HPWS in firm performance in dynamic environments. HRM researchers have continuously argued that the way firms configure human capital, motivate employees, and offer opportunities is a matter of sustainable competitive advantage (Shaw et al., 2013; Wright et al., 1994). Recently, a few studies have demonstrated how a HRM system generates dynamic collective processes to sense threats, seize new opportunities, and reconfigure internal and external resources (Gahan et al., 2021; Lewin & Teece, 2019). Consistent with this work, we suggest that an HPWS shapes different climates for employees to engage more effectively in their organization’s stability and recovery during times of crisis. The process of reconfiguring resources during a crisis may be idiosyncratic and inimitable (Alvarez & Barney, 2007). An HPWS creates an internal social foundation (i.e., organizational climates) through which employees navigate uncertainties (Evans & Davis, 2005). Our finding—that an HPWS helps maintain stability and facilitates recovery—provides additional evidence that an HPWS is a source of competitive advantage.

In our organizational climate framework, we posited that both trust and innovation climates serve dual properties: stability and flexibility. However, our findings indicated that each climate has a primary function at different phases. Specifically, we found that a climate of innovation was not related to the severity of loss. We reason that the positive impact of the innovation climate may not be pronounced during the jolt. When a crisis occurs, organizations initially lack an understanding of the optimal decisions and their results; thus, generating and actualizing new ideas based on a fine-grained understanding takes time (Alvarez & Barney, 2010; Knight, 1921). New initiatives during the jolt phase may entail a risk of failure and even add to the chaos and may elicit precarious responses from employees, even though a firm may be strongly grounded in an innovative climate (Weick, 1995).

We also found that there was no positive association between the climate of trust and the scale of recovery. One possible explanation is that the relationship is not linear during the turnaround phase. A line of research has suggested a tipping point for trust in generating innovation, but beyond that point, trust reduces the benefits (Langfred, 2004; Molina-Morales et al., 2011; Szulanski et al., 2004). A strong climate of trust drives the experience of stabilizing turmoil, thereby enhancing collective efficacy. Nevertheless, the success of minimizing the loss in the jolt phase reduces enthusiasm for opting for a new direction and initiating novel ideas. Too much trust and complacency may blind a firm to opportunities for transformation during a turnaround (Gargiulo & Ertug, 2006).

Practical Implications

Our study provides practical implications for organizations to prepare for crises. We elucidated how organizational resilience

unfolded during the COVID-19 pandemic. We demonstrated the importance of organizational climates of trust and innovation as the building blocks of resilient organizations. Management communication with employees is crucial to facilitating trusting relationships. In addition, a repeated message that the organization cares about employees can be critical in challenging times (Iverson & Zatzick, 2011; Steinbach et al., 2021). Managers may promote trust among employees through employee recognition programs for their unique experiences, knowledge, and skills (Mayer et al., 1995). Moreover, during the turnaround of a crisis, managers should help employees embrace a future-oriented perspective and adopt innovative action in the workplace (Jeong & Shin, 2019). When employees collectively engage in innovative activities, organizations can gain greater momentum toward recovery from crises.

Our results shed light on the value of an HPWS in the organizational resilience process over time. Many studies have shown that investments in an HPWS enhance employee and financial performance (Combs et al., 2006; K. Jiang et al., 2012; D. Shin & Konrad, 2017). Although the benefits of an HPWS have been established, sustaining long-term employee relationships in the face of crises is challenging—especially under financial pressure (Bentley et al., 2021). Thus, decision makers might be reluctant to invest in an HPWS and prefer to pursue short-term profits (e.g., by laying off employees) at the expense of employee relationships (Collings et al., 2021). However, our findings reveal that an HPWS plays a critical role in organizational resilience. An HPWS not only minimizes the impact of a crisis, but it also helps firms recover from adversities and even capitalize on opportunities.

Limitations and Future Research Direction

Our findings should be considered in light of several study limitations. First, we used a time-lagged research design to measure an HPWS and two mediating mechanisms before the COVID-19 pandemic and matched them to postpandemic performance. We encourage future researchers to test explicitly for causality using a panel data set. Research could track the change in an HPWS during some key crisis and its impact on the organizational climate and performance. Due to decreased profitability, many organizations could not afford labor-related expenditures (e.g., employee training and exclusive benefits) during the COVID-19 pandemic. Narrow attention and passive action may often be inevitable for organizational survival during crises (Wood & Ogbonnaya, 2018). Nevertheless, in face of crisis, some firms manage to maintain investments in their workforce or expand it further, which strongly signals management consideration of employees (Iverson & Pullman, 2000). Maintaining HRM practices—such as inducements and investments—provides a clear favorable message to employees and thus continuously nurtures the organizational climate. In addition, HRM practices must be flexible in crises, as proactive adaptation is necessary in complex and fluctuating environments (Lengnick-Hall & Beck, 2005). Future scholars should thus explore these issues using longitudinal data on HRM practices.

Second, the organizational climates in our study—that an HPWS influenced before the crisis—may not have fully reflected their transformation during a crisis and its impact on resilience. Though our study offers valuable insights into the contribution of an HPWS in promoting an organizational climate, recognizing our undertaking's limitations—particularly in terms of the accuracy of our

measurements due to the use of archival data—is imperative. Although we judiciously opted for a reduced number of items that exhibited higher content validity from our panel data, improving construct validity of these items is critical. Future research may use more rigorous measurements to assess organizational climates, especially during crises. In addition, because organizational climate is a complex construct, exploring various organizational climates—such as justice and support climates—could further enhance understanding of their role in crisis impact mitigation and recovery processes.

Third, we are unable to support fully the idea that an HPWS prior to a crisis enhances resilience. Although Hypothesis 1—asserting a direct relationship between an HPWS and severity of loss—received support, Hypothesis 2—which proposed a link between HPWS and scale of recovery—was not supported. This discordance prompts a reconsideration of the role of an HPWS in dynamic environments. Several researchers have suggested that an HPWS may be less effective in dynamic situations than in stable environments (e.g., Gahan et al., 2021). A precrisis HPWS might be limited in acquisition and coordination of new human capital to adapt to the new environment. As Y. Kim and Ployhart (2014) articulated, the postcrisis phase often requires a flexible redeployment of “generic human capital resources” to adapt to new conditions and purposes. Conversely, a focus on firm-specific human capital—often emphasized in internal training programs—could limit this adaptability (Gahan et al., 2021). The economic constraints typically associated with crises often lead to a reduction in new hiring. In such situations, organizations that have heavily invested in training for firm-specific knowledge and skills might face challenges in obtaining new resources, which may hamper acclimating in the new environment. Future empiricism may explore the impacts of an HPWS with its orientation for generic or firm-specific knowledge in terms of the selection and training practices in granular detail. Nevertheless, although the direct link between an HPWS and scale of recovery may not be apparent, an HPWS contributes to fostering a climate conducive to innovative adaptation among employees and enhances recovery.

Conclusion

An HPWS fosters resilience and achieves a positive state during a crisis through fostering organizational climates. An HPWS reduces the severity of loss in the jolt phase by promoting a climate of trust. An HPWS promotes recovery during the turnaround phase by enhancing a climate of innovation. We hope that our study will stimulate further research on the potential value of an HPWS for organizational resilience in a temporal perspective.

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Appendix

List of Organizational Climate Measurements and Corresponding Subject Matter Experts Rating

Item	htc
Climate of trust	
Our management's ability to lead is competitive with our industry peers.	0.90
Our management gives a detailed, caring account of the company's situation.	0.85
Our management deserves to be trusted and followed in a sound manner.	0.95
Our employees are reliable in performing their jobs.	0.90
In our company, employees treat each other in a sound manner.	1.00
Climate of innovation	
Our company encourages participation in changes and new attempts.	0.95
Our company provides adequate support for innovation.	0.90
At our company, we value the expertise and skills needed to get the job done.	0.95

Note. htc = Hinkin Tracey correspondence.

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