Athens Journal of Tourism - Volume 12, Issue 3, September 2025 – Pages 189-210

How Resilient is the Hotel Industry to Climate Change Impacts in Coastal Areas?

By Karen Irene Thal[*] & Ronald Christian[±]

This conceptual study proposes a model of natural disaster resilience for hotel properties by addressing the Anticipation phase in Organizational Resilience (OR) frameworks. Building on prior studies, the model integrates a multi- capital framework to evaluate natural disaster preparedness (NDP), along with insights from Regulatory Focus Theory (RFT). RFT highlights the pivotal role of hotel General Managers' (GMs') motivational orientation (promotion vs. prevention focus) in shaping preparedness. A GM's prior knowledge is also included as a potential moderator of the relationship between RFT and NDP. Recognizing that hotels are embedded in broader systems, and that a property's resilience is closely tied to surrounding infrastructure and support networks, the model further incorporates destination-level preparedness within the multi-capital framework. The conceptual model is designed to yield a composite Hotel Resilience Index (HRI), enabling meaningful comparisons between individual properties and destinations while highlighting the critical roles of leadership, agency, and collaboration in building resilience to natural disasters.

Keywords: *Natural disaster preparedness; Organizational Resilience, Regulatory Focus Theory, climate change, hotel industry*

Introduction

Intensifying climate-related risks and infrastructure vulnerability, especially given the prevalence of tourism in coastal areas globally, underscore the importance of addressing resilience within the hotel sector (Adger et al.

2007, Northrop 2020). Threats in coastal areas are numerous and include rising sea levels, coastal erosion, increased storm surges, and more extreme and frequent weather events (Ridha et al. 2022). A 2023 IPCC report further noted that, in addition to the significant atmospheric, biospheric, and oceanic changes that have already occurred, these threats will only intensify in the coming decades (Lee et al. 2023).

The concept of resilience has begun to attract significant academic interest across multiple disciplines (Jones and Comfort 2020). Resilience can be broadly understood as the capacity of an entity (such as a system, organization, or community) to cope with disturbances or changes, and often involves planning, adapting, recovering, or transforming in response to unexpected events (Basurto-Cedeño and Pennington-Gray 2018, Gabler et al. 2017, Wang et al. 2022). Developing the capacity to anticipate threats as well as implement measures to mitigate impacts are integral to OR, enabling organizations to respond more effectively and recover more efficiently

[*]Associate Professor of Tourism and Hospitality Management, Fort Hays State University, USA.
[±]Assistant Professor of Marketing, Fort Hays State University, USA.

https://doi.org/10.30958/ajt.12-3-1 doi=10.30958/ajt.12-3-1

from adverse or unanticipated events (Duchek 2020, Jiang et al. 2021, Melián-Alzola et al. 2020).

Research within the hotel sector suggests that a predominantly reactive rather than proactive stance, however, is typical (Brown et al. 2017). The consequences of such under-preparedness may be particularly severe for the hotel sector, given its continuous operations and the responsibility of hosting guests who are themselves unprepared to respond to local and natural events (Brown et al. 2017). Barriers to proactive planning include insufficient resources or lack of investment in preparedness activities due to their perceived high costs, as well as difficulty demonstrating adequate return on investment (Brown et al. 2017, Filimonau and De Coteau 2020, Ivkov et al. 2019, Jiang et al. 2021, Sydnor-Bousso et al. 2011). In addition, time constraints due to operational demands often translate into inadequate staff training and involvement in the preparedness process, even when written plans exist (Brown et al. 2017, Hall et al. 2023, Jiang et al. 2021, Sydnor-Bousso et al. 2011). Thus, despite growing risks in vulnerable coastal areas, and the recognized importance of proper planning notwithstanding, many hotels fail to engage in natural disaster preparedness (Brown et al. 2017).

Given the increasing intensity of climate-related threats in coastal regions, and the hotel sector's tendency to rely on reactive rather than proactive measures, this study proposes a conceptual model to assess the Anticipation phase of natural disaster preparedness as a precursor to natural disaster resilience. The conceptual paper includes the introduction to the resilience concept as applied to the hotel industry, a pertinent literature review, a description of the conceptual model with variables and methodology supporting the proposed framework, a brief discussion, and finally, a conclusion.

Literature Review

Natural disasters are defined as catastrophic events such as hurricanes, earthquakes, or other geophysical or meteorological phenomena that often strike with little warning, resulting in social and economic disruption (Gabler et al. 2017, Ivkov et al. 2019, Mileti 1999). Resilience models that take the natural world into account include evolutionary resilience which describes the capacity of both human and natural systems to adapt in a continuously changing world (Basurto-Cedeño and Pennington-Gray 2018). Ecological resilience considers the ability of natural systems to absorb disturbances and remain in functional equilibrium, while socio-ecological resilience focuses on the dynamic interactions between human and natural systems, as well as their shared capacity to change and adapt (Fabry and Zeghni, 2019).

While resilience for the hotel industry can likewise be conceptualized in various ways, at least two prior studies have applied a multi-capital framework (Brown et al., 2019; Ivkov et al., 2019), arguing that it captures the diverse internal resources and capacities hotels must leverage to prepare for, withstand, and recover from natural disasters. In this context, capital refers to the internal resources and capabilities hotels draw upon both to mitigate the negative impacts of a disaster and to support recovery (Brown et al., 2017). A multi-capital framework aligns with a socio-

ecological perspective but is broader in scope, encompassing economic, social, human, physical, natural, and even cultural predictors of disaster resilience (Ivkov et al., 2019). By contrast, a strategic resilience framework, for example, while also emphasizing preparedness and adaptation through the development of tools and processes, does not integrate the broader spectrum of resources that underpin long-term preparation and recovery (Cabaguing et al., 2024). Thus, by including a diverse range of predictors, a capital-based framework enables a more comprehensive assessment of a hotel's capacity to withstand and recover from a natural disaster. Building on this approach, the authors propose a conceptual model that incorporates organizational level capital alongside destination capital components involving the socio-political and natural environment.

Empirical research on natural disaster resilience at the hotel property level remains limited but both Brown et al. (2019) and Ivkov et al. (2019) employed a multi-capital framework to investigate and measure hotel preparedness in their studies. Brown et al. (2019) assessed disaster resilience within the hotel sector in two New Zealand tourist destinations, namely Wellington and Hawke's Bay. The study, an exploratory, quantitative survey of both hotel managers and staff, included predictors of resilience across economic, social, human, physical, natural, and cultural capitals. The study found that hotels demonstrated positive attributes of disaster preparedness across these capital predictors but also indicated areas requiring improvement, such as budgeting for disaster management activities and increasing staff involvement in planning. The work of Brown et al. (2019) suggests future research should conduct larger studies or case studies in diverse locations, especially post-disaster, to validate and refine the disaster resilience measures for the hotel sector. The authors aim to provide a conceptual model to support this type of future research.

Ivkov et al. (2019) likewise utilized a multi capital-based approach in a survey of 63 hotel managers across 12 European countries most affected by natural disasters. Their study found that managerial experiences and the hotel's category and size positively influence perceived hotel resilience but also revealed that disaster management expenses were often not a significant part of hotel budgets (Ivkov et al. 2019). Key takeaways include that natural disaster resilience, at least in a European context, is positively influenced by managers' previous experience and longer managerial tenure, particularly impacting the human and physical capital aspects of resilience. Like Brown et. al (2019), researchers noted that despite strengths in areas such as insurance and teamwork, there was a notable weakness in economic capital, with many hotels failing to allocate significant portions of their budget to disaster management expenses. The research findings therefore emphasize that managers, particularly of smaller and lower category hotels, need to integrate preparedness costs into their long-term strategy.

Natural Disaster Resilience and Destination Resilience

A more robust body of research on natural disaster resilience at the destination level offers additional insights. Destination resilience is understood as the multifaceted ability of a region, including its stakeholders and residents, to prepare

for, absorb, recover from, and adapt to adverse events and changes, often by reorganizing to maintain functions or reach a new, potentially better state (Caluza 2024, Traskevich and Fontanari 2025, Jiao et al. 2024, Melián-Alzola et al. 2020, Olalia 2024, Sinha and Ola, 2021, Wang et al. 2022).

These studies have used economic, social, institutional, infrastructure, and community indicators to explore destination resilience in the context of various natural disasters such as forest fires (Hystad and Keller 2008), floods (Tsai et al. 2016, Walters et al. 2015), earthquakes (Bruneau et al. 2003, Yamamura 2016), and hurricanes (Seraphin 2018), in destinations including the Caribbean, New Zealand, and Thailand. Key insights from these studies suggest that resilience is a dynamic process which critically depends on elements like planning, continuous learning, leadership, resource management, and effective collaboration and knowledge sharing among diverse stakeholders (Hall et al. 2023, Jiang et al. 2021, Sharma et al. 2024). Studies furthermore suggest that fostering destination resilience requires proactive, integrative strategies, often involving innovation and cooperative network development to enhance adaptive capacity across economic, social, human, physical, natural, and cultural capitals (Brown et al. 2017, Della Corte et al. 2021, Sharma et al. 2024).

The broader context provided by destination resilience is also directly relevant to the resilience of individual hotel properties. That is, resilience at the hotel and destination levels is inextricably linked. An individual hotel property's resilience means little if basic infrastructure collapses or utilities fail, preventing hotels from receiving guests (Filimonau and De Coteau, 2020). Destination resilience likewise depends on the resilience of the subsystems within it (Filimonau and De Coteau, 2020). The two therefore share a reciprocal relationship in which each reinforces the other's capacity to withstand and recover from natural disasters (Brown et al., 2017; Hall et al., 2022; Hoffman et al., 2023). Accordingly, the proposed conceptual model incorporates measures of destination-level preparedness as crucial resources that enhance hotel resilience.

Organizational Resilience Defined

Organizational Resilience (OR) is defined as, "the ability of an organization to anticipate, prepare for, respond and adapt to incremental change and sudden disruptions in order to survive and prosper" (Denyer 2017). Contemporary literature promotes a process-based, iterative perspective on OR (Melián-Alzola et al. 2020).

From a process perspective, OR is conceived as a dynamic condition that includes actions taken before, during, and after adverse events (Jiang et al. 2021, Sinha and Ola 2021). For instance, Denyer (2017) devised the 4Sight framework that comprises four stages, namely: (1) Foresight (anticipation and preparation), (2) Insight (interpreting and responding to present conditions), (3) Oversight (monitoring and assessing post-event), and (4) Hindsight (learning from past experience).

Likewise, Duchek's (2020) framework describes OR in terms of meta-capabilities comprising three 'action' phases: (1) Anticipation (proactive or before an event), (2) Coping (concurrent or during an event), and (3) Adaptation (reactive or after an event). The first, or Anticipation phase, includes preventive measures relative to potential disturbances and comprises two facets: (1) Observation and

Identification, and (2) Preparation. Observation and Identification involve environmental scanning, while Preparation encompasses concrete steps that may be taken to prepare for unexpected events (Duchek, 2020). In other words, the former entails the ability to detect weak signals in the environment and identify potential threats. As the proposed model addresses a specific and identified threat, namely natural disasters, the Observation facet is not included in the study model. Similarly, Identification, or the ability to recognize potential threats, is excluded as it is a potentially confounding variable with Prior Knowledge as defined in this study. Rather, the study focuses on the latter or Preparation phase which includes an organization's capacity to build resources, foster relationships, and develop the readiness necessary to respond effectively to crises, thereby building long-term resilience (Duchek, 2020).

The Preparation stage is further defined by two contributing factors: the antecedent, Prior Knowledge, and the driver, Resource Availability (Duchek, 2020). Prior Knowledge is described as an antecedent of the Anticipation phase in Duchek's (2020) conceptual framework and comprises three facets, namely: (1) knowledge about the environment, (2) knowledge about former crises and (3) and knowledge about successful actions taken. Prior knowledge is described as a crucial and foundational element within the resilience-building process since organizational knowledge may inform strategic focus including the ability to identify critical developments and potential threats, and consequently, prepare for future events (Cohen and Levinthal 1990, Duchek 2020). The current study's conceptual model seeks to operationalize the Anticipation phase of OR relative to natural disasters, and we hypothesize that Prior Knowledge of natural disasters will increase the likelihood of preparedness as indicated in prior research findings (Tompkins et al. 2012).

Resource Availability refers to an organization's access to critical resources and assets that can be deployed to support crisis response and recovery (Duchek, 2020). It is considered essential for organizational resilience during each phase of OR, as it enables effective anticipation, absorption, and adaptation in the face of adverse events (Duchek, 2020). In practical terms, resources may include temporal, financial, and human capital, as well as business functions such as contingency planning (Duchek, 2020). In the current study, Resource Availability is framed in terms of destination capital, as hotel operations are already accounted for within the proposed, multi-capital framework. Moreover, external factors such as a destination's infrastructure and overall preparedness including characteristics of the community and natural environment, represent the critical local resource s upon which a hotel's recovery depends (Filimonau and De Coteau, 2020).

In short, destination capital reflects those aspects of the local environment that facilitate resilience. Based on prior studies, a resilient destination is characterized by the ability to maintain essential services such as supply chains, transportation, security, healthcare, and guest care for both tourists and residents (Hoffman et al., 2023). Resilient destinations also provide critical infrastructure and cooperative networks that support individual organizations during and after crises (Brown et al., 2017; Hall et al., 2022; Hoffman et al., 2023). Accordingly, in the present study, Destination Preparedness measures are included as a key variable in calculating Hotel Resilience (see Table 1 in the Appendix).

Organizational Resilience in Prior Studies

Previous studies have applied Organizational Resilience (OR) frameworks to explore how hotel managers can best prepare for and respond to disruptive events. For example, Melián-Alzola et al. (2020) developed and validated a framework for measuring organizational resilience within the hotel sector. Their study empirically examined disruptive changes as perceived by hotel managers in the Canary Islands, and involved developing measurement scales for resilience predictors, including strategic and change-related dimensions. Analyzing the effects on hotel performance, findings confirmed that both the strategy (e.g., planning, collaboration, learning from past experiences) and change (e.g., innovation, continuous improvement, learning) dimensions positively influence hotel resilience, which in turn significantly and positively impacted hotel performance (Melián-Alzola et al. 2020). These finding confirm that proactively planning and adapting are key to hotels emerging strengthened from disruptions (Melián-Alzola et al. 2020).

Ho et al. (2023) adapted Duchek's (2020) OR model for the hospitality and tourism industry to propose a holistic resilience framework designed specifically to address environmental uncertainty, such as disruptions caused by the COVID-19 pandemic. Their study included a synthesis of concepts related to organizational resilience and strategic leadership to construct a strategic leadership-enhanced OR framework. That is, their proposed framework integrated strategic leadership as a key driver within resilience processes (anticipation, coping, adaptation) and strategic support factors (like prior knowledge and resources) to provide a more comprehensive understanding of what is required for hospitality and tourism organizations to attain resilience and long-term health in turbulent times. The current conceptual model integrates additional elements impacting resilience in order to advance this line of research. A key component of the proposed model involves the role of General Managers (GMs) in the Anticipation phase of organizational resilience. Specifically, Regulatory Focus and Prior Knowledge are proposed as indicative attributes of GMs whose leadership styles, in turn, are considered integral to the mobilization of capital at the organization level.

Regulatory Focus Theory

Regulatory Focus Theory (RFT) explains how individuals pursue goals through two primary motivational orientations: promotion focus and prevention focus (Higgins 1997). Promotion focus involves striving for growth, achievement, and positive outcomes, while a prevention focus centers on fulfilling responsibilities, avoiding negative outcomes, and maintaining security (Gino and Margolis 2011). As regulatory focus is conceptualized as a chronic motivational orientation that is relatively stable over time (Manczak et al. 2014), we have included it as the independent variable in the current study model.

A GM's leadership style, particularly regulatory focus, influences strategic decision-making and change implementation (Jiang et al., 2020). As indicated in the literature, a primary driver of a manager's attitudes and behaviors, particularly in team-oriented settings, is regulatory focus, which influences strategic goal setting

and organizational performance (Johnson et al., 2015). Leadership style also plays a central role in decision-making across all organizational levels (Lombardi et al., 2021); thus, GMs may be considered the "key driver and pre-eminent factor in the entire resilience procedure" (Ho et al., 2023). As such, and in the current study, we include constructs from RFT (Higgins, 1997) to examine how a GMs motivational orientation towards future events may influence natural disaster preparedness at the organizational level.

Research shows that promotion-focused CEOs tend to emphasize accomplishment, optimistic forecasting, innovation, and risk-taking (Jiang et al., 2020), whereas prevention-focused CEOs are more concerned with preserving assets, minimizing loss, and avoiding failure (Zou and Chan, 2019). Scholars have also examined the role of regulatory focus in judgment (e.g., eager vs. vigilant; Molden and Higgins, 2003) and decision-making strategies (Kirmani and Zhu, 2007), both of which are critical for enhancing resilience. In organizations operating under environmental threats, managers tend to adopt prevention-focused behaviors (Kark and Van Dijk, 2019).

The present study seeks to extend this line of research by examining the role of regulatory focus in natural disaster resilience within the hotel industry. Sustaining operational efficiency in uncertain circumstances can be challenging for hotel managers. It is proposed that under such conditions, managers with a prevention-focused mindset will be more likely to adopt preparedness and resilience initiatives. We therefore hypothesize that a prevention focus will have a significant and positive relationship with Natural Disaster Preparedness (NDP), whereas a promotion focus will have a significant and negative relationship with NDP, as follows:

Proposition 1: Regulatory focus impacts levels of natural disaster preparedness

Proposition 2: Prevention-focus (promotion-focus) managers will rate significantly higher (lower) on natural disaster preparedness

In addition to regulatory focus, a GM's knowledge and past experiences likewise shape strategic decision making and affect organizational outcomes (Weis and Klarner 2022). The authors suggest, however, that a balance is essential when shoring up knowledge needed for favorable resilience outcomes. While the information is vast regarding resiliency, hotel managers are best suited for optimal resiliency when managing information load effectively. Therefore, the following hypotheses are proposed:

Proposition 3: Prior knowledge moderates the effect of regulatory focus on NDP

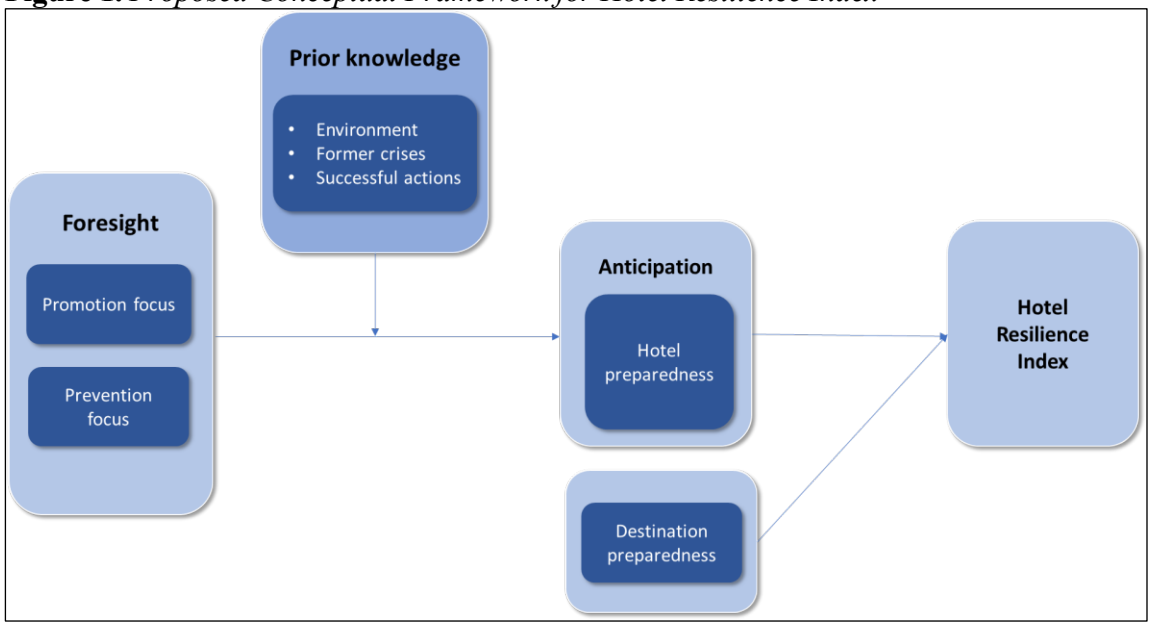
Proposition 4: Prevention-focus (promotion-focus) managers with high information load will rate significantly higher (lower) on NDP

Finally, to integrate both internal and external dimensions of disaster preparedness, the model includes a composite score of overall hotel resilience. This construct combines organizational-level preparedness, measured through readiness actions and protocols, with destination-level preparedness, to reflect broader structural and environmental conditions such as local infrastructure, emergency systems, and

disaster governance. Therefore, the following hypotheses are proposed:

> Proposition 5: Hotel preparedness positively influences hotel resilience. Proposition 6: Destination preparedness positively influences hotel resilience.

Figure 1. *Proposed Conceptual Framework for Hotel Resilience Index*



Methodology

The current study includes a survey instrument designed for the purpose of operationalizing the model. Study measurement scales are included in the Appendix with a brief description of each provided below.

Regulatory Focus

Resilience frameworks typically overlook the role of agency, or in this case the impact of General Managers (GMs) on the OR process. However, rather than a fixed attribute, measurable asset, or objective trait, resilience primarily reflects the ability and willingness of individual actors to take proactive steps in response to anticipated challenges (Posch et al. 2024). Thus, the study model proposes measuring Regulatory Focus through an 11 question, 5-point scale developed and tested by Higgins et al. (2021) (see Appendix).

Prior Knowledge

The study model includes the three aspects of Prior knowledge: (1) knowledge about the environment, (2) knowledge about former crises and (3) and knowledge about successful actions taken, hypothesized as a moderating influence between Regulatory focus and Natural disaster preparedness.

In the current study we limit the first aspect, namely (1) knowledge about the environment to knowledge of the *physical* environment as this is directly relevant to natural disaster preparedness (Daimon et al. 2023). Access to hazard-specific information, such as flood risk mapping, for example, helps individuals to identify and assess particular risks as well as develop appropriate preparedness (Tompkins et al. 2012).

The second facet, knowledge about former crises, has been shown to influence risk perceptions of future hazards (Siegrist and Gutscher 2005). Participants with prior flood experience, for example, interpreted the probability of future floods differently than those without such experience, and in particular displayed a heightened perception of risk, according to one study (Keller et al 2006). However, the severity of a past event is relevant and is accounted for in the model's scale (see Appendix). For example, people tend to disregard disaster information (such as heavy rainfall and evacuation warnings) when they have repeatedly experienced disasters that were relatively minor (Daimon et al. 2023). This reflects the general tendency to use past experiences of disasters as a reference point, potentially leading to an underestimation of future disasters (Daimon et al. 2023).

The third facet, knowledge about successful actions taken, may support natural disaster preparedness. Prior successful actions taken during or after a natural disaster have been shown to inform and significantly improve future disaster preparedness as organizations may learn from past experiences and embed effective responses into routines, policies, and training, thereby enhancing their adaptive capacity and resilience to future events (Linnenluecke et al. 2012).

Moderation Effects

We propose that Prior Knowledge will moderate the relationship between Regulatory Focus and Natural Disaster Preparedness. As fundamental as prior knowledge has proven to be for organizations, research in this area is scant in relation to the hotel industry. Given the vulnerability of hotels to environmental threats, the ability to process information, learn, and absorb relevant knowledge is nonetheless critical to natural disaster resilience.

Extant research has, however, discussed the concept of "information overload" (e.g., receiving too much information) in various management disciplines (Eppler and Mengis, 2004; Grise and Gallupe, 1999/2000; Iselin, 1993; Tushman and Nadler, 1978). One might argue that the information load on hotel managers can be vast, particularly when including the knowledge required to address environmental threats and vulnerabilities.

Prior studies have shown that decision-making and reasoning quality improves with increased information, but only up to a point. Beyond this threshold, additional information leads to a rapid decline in decision quality (Chewning and Harrell, 1990; Eppler and Mengis, 2004). In the context of regulatory focus, scholars have suggested that information processing varies, and we expect the interaction effect to be similarly nuanced (Yoon et al., 2012). Yoon et al. (2012), for example, found that under high information load, promotion-focused individuals tend to rely on positive rather than negative material, while prevention-focused individuals favor negative over positive material. Thus, prevention-focused managers may be more likely to

attend to cautionary signals and related materials, strengthening natural disaster preparedness, whereas promotion-focused managers may compromise preparedness by overlooking warnings or underweighting potential environmental threats.

Hotel Natural Disaster Preparedness

Consistent with previous research, the authors propose a capital-based model to measure Natural Disaster Preparedness at the organizational level. (Brown et al. 2019, Ivkov et al. 2019). This framework identifies a hotel's internal resources and capabilities (capitals) (Brown et al. 2018) to reflect the Anticipation (proactive or before an event) phase of OR, and is conceptualized as a dependent variable of GM attributes measured in terms of RFT, with the relationship moderated by Prior Knowledge (see Figure 1).

Measurement scales were adapted from Brown et al. (2019), who assessed natural disaster resilience among hotel managers in New Zealand measuring six indicators, namely (1) economic, (2) social (3) human, (4) physical, (5) natural, and (6) cultural capital. Brown et al. (2019)'s research acknowledged challenges in quantitatively measuring cultural capital, however, and that measure is not included in the current study. Ivkov et al.'s (2019) applied in a capital-based framework but merged cultural capital with social capital to form organizational capital, for five indicators overall, namely (1) economic, (2) organizational, (3) human, (4) physical, and (5) natural capital, resources.

Following Ivkov et al.'s (2019) lead, the current study model includes (1) economic, (2) human and (3) natural capital, but has replaced cultural and social capital in this case with destination measures (see below). In addition, (4) management capital has been added to reinforce an emphasis on agency as well as the pivotal role of management for strategic planning and leadership.

We also include a measure of (5) corporate capital since ownership structures have been shown to have an impact on natural disaster preparedness in prior studies (Ivkov et al. 2019). Moreover, as major hotel chains have increasingly adhered to an "asset light" strategy, ownership of buildings and real estate is often transferred into the hands of investment firms, while management is outsourced or delegated through franchise agreements (Cloudbeds n.d.). This severing of hotel ownership from hotel management may further hamper natural disaster preparedness as management has no vested interest in the hotel's physical assets but rather is contractually obligated to focus on daily operations and short-term financial performance indicators.

Destination Natural Disaster Preparedness

Hotels are not isolated entities but are an integral part of a destination, both contributing to and benefiting from destination preparedness. To that end, local and government initiatives are recognized as pivotal to preparedness and ultimately resilience for both hotels and destinations (Cabaguing et al., 2024). For example, local, state, or federal government initiatives may include emergency response planning, infrastructure investment, hazard mitigation programs, and public awareness campaigns that support disaster preparedness and recovery efforts.

Local tourism businesses may also support each other within destinations by forming collaborative networks, providing mutual support, and sharing resources, knowledge, and infrastructure (Fontanari and Traskevich, 2025; Jiao et al., 2024; Melián-Alzola et al., 2020; Olalia, 2024).

Local communities promote destination resilience by actively engaging in planning and development, leveraging their resources, knowledge, identity, and enterprises to build regional self-sufficiency and shape resilient value chains (Fontanari and Traskevich, 2025; Wang et al., 2022). This involves fostering cooperation, building strong social networks and trust among stakeholders, and ensuring the provision of essential services for both residents and guests. Together, these efforts strengthen the destination's ability to adapt to disturbances and enhance collective well-being and prosperity (Melián-Alzola et al., 2020; Olalia, 2024; Wang et al., 2022).

Thus, the current conceptual study includes additional predictors that reflect destination preparedness, namely (6) municipal, (7) government, (8) industry, and (9) community factors in the model, as these are paramount to hotel resilience. As discussed, these markers correspond with Resource Availability in the Anticipation phase of organizational resilience as proposed by Duchek (2020), which fundamentally implies having access to as well as the ability to mobilize critical support systems in preparing for and responding to disruptive events.

Finally, as in prior studies, we include a measure for (10) natural capital in Destination Preparedness which refers to the natural environmental features surrounding a hotel, such as protective barriers like reefs, dunes, or mangroves, and healthy ecosystems. It also encompasses the local climate conditions that reduce the hotel's exposure to natural hazards and disasters. Such natural capital is critically important, as it serves as a first line of defense against environmental threats, significantly lowering the risk of damage and disruption to hotel operations (Brown et al. 2019, Ivkov et al. 2019).

Hotel Resilience Index

Similar to the Tourism Resilience Index developed by the National Oceanic and Atmospheric Administration, averaged scores for each hotel and destination capital predictor will be calculated to produce a composite Hotel Resilience Index (HRI) score (NOAA, n.d.). These composite scores will be categorized as "low," "medium," or "high" to provide a simple reference frame for individual hotel properties (NOAA, n.d.) and enable meaningful comparisons both between individual properties and destinations, as well as across hotels and destinations. Scores may also be disaggregated to isolate and compare the effectiveness of GMs' leadership style in analysis.

Discussion

The study's conceptual model offers several implications for the hotel industry and related stakeholders. The research may help inform both hotel companies and Destination Management Organizations (DMOs), especially those in vulnerable

coastal areas prone to natural disasters. A key implication concerns the importance of the General Manager's (GM) characteristics and managerial orientation. The study suggests that organizations should consider the extent to which a GM's tendency toward risk aversion versus proactive engagement affects the organization's resilience when selecting leadership. While acknowledging that a GM's influence can be constrained by complex ownership structures and management contracts, the study highlights the central role leaders play in organizational decision-making and resilience.

The proposed conceptual model adopts a multilevel approach to resilience by situating hotels within the broader destination systems. An important contribution is the inclusion of disaster preparedness at the destination level. Disaster preparedness is inherently multi-layered. No hotel prepares in a vacuum. Combining organizational readiness with contextual resilience reflects the real- world complexity of disaster response systems. This also aligns with systems thinking, resilience theory, and disaster risk reduction frameworks, which emphasize both internal capacity and external environments.

Conclusion

Proposed findings from the conceptual model will highlight an interplay of factors to provide a more holistic framework for how the hotel industry should conceptualize, prepare for, and ultimately withstand the impact of natural hazards. It emphasizes the influence of leadership styles and organizational preparedness, along with municipal, governmental, industry, and community support as critical factors for natural disaster resilience. The outcome variable, a resilience index may thus be used for descriptive profiling, benchmarking, or case comparisons at both the organizational and destination level.

While aiming to build upon previous scholarly work on resiliency models, there are limitations with this paper that future researchers should consider. First, while regulatory focus has been determined as a critical factor in leadership style and management outcomes, it is worth considering the role of other individual-level variables in resiliency. Second, future research may also examine additional stages of OR models to gain further insight into the multi-faceted processes implicated in building resiliency. Finally, the proposed conceptual model may be validated through data collection and analysis, thereby advancing an understanding of preparedness and overall resiliency within the hotel industry.

References

Adger N, Aggarwal P, Agrawala S, Alcamo J, Allali A, Anisimov O, Arnell N, Boko M,Canziani O, Carter T, Casassa G, Confalonieri U, CruzRV, Alba Alcaraz ED, Easterling W, Field C, Fischlin A, Fitzharris BB, García CG, . . . WMO UNEP (2007) *Climate Change 2007: Impacts, Adaptation and Vulnerability.* In the Intergovernmental Panel on Climate Change Fourth Assessment Report. https://msuweb.montclair.edu/~lebelp/PSC643IntPolEcon/IPCCClimateChange2007.pdf

Amore A, Prayag G, Hall CM (2018) Conceptualizing destination resilience from a

multilevel perspective. *Tourism Review International,* 22(3-4), 235-250.
Atzori R, Fyall A, Miller G (2018) Tourist responses to climate change: Potential impacts and adaptation in Florida's coastal destinations. *Tourism Management*, *69*, 12-22.
Badoc-Gonzales BP, Mandigma MBS, Tan JJ (2022) SME resilience as a catalyst for tourism destinations: a literature review. *Journal of Global Entrepreneurship Research, 12*(1), 23-44.
Basurto-Cedeño EM, Pennington-Gray L (2018) An applied destination resilience model. *Tourism Review International, 22*(3-4), 293-302.
Becker JS, Paton D, Johnston DM, Ronan KR, McClure J (2017) The role of prior experience in informing and motivating earthquake preparedness. *International journal of Disaster Risk Reduction, 22*, 179-193.
Borisova T, Breuer N, Carriker R (2008) *Economic Impacts of Climate Change on Florida: Estimates from Two Studies*. EDIS and University of Florida-IFAS.
Brown NA, Rovins JE, Feldmann-Jensen S, Orchiston C, Johnston D (2017) Exploring disaster resilience within the hotel sector: A systematic review of literature. *International Journal of Disaster Risk Reduction*, *22*, 362-370.
Brown NA, Orchiston C, Rovins JE, Feldmann-Jensen S, Johnston D (2018) An integrative framework for investigating disaster resilience within the hotel sector. *Journal of Hospitality and Tourism Management, 36*, 67-75.
Brown NA, Rovins JE, Feldmann-Jensen S, Orchiston C, Johnston D (2019) Measuring disaster resilience within the hotel sector: An exploratory survey of Wellington and Hawke's Bay, New Zealand hotel staff and managers. *International Journal of Disaster Risk Reduction, 33*, 108-121.
Brulle RJ, Carmichael J, Jenkins JC (2012) Shifting public opinion on climate change: an empirical assessment of factors influencing concern over climate change in the US, 2002–2010. *Climatic change*, *114*(2), 169-188.
Bruneau M, Chang SE, Eguchi RT, Lee GC, O'Rourke TD, Reinhorn AM, et al. (2003) A framework to quantitatively assess and enhance the seismic resilience of communities. *Earthquake Spectra*, 19(4), 733–752. https://doi.org/10.1193/1.1623497.
Cabaguing JM, Cabatingan AY, Delantar AFA (2024) Crises Readiness and Response Strategies in Times of Disruptions in The Hotel Industry: A Strategic Resilience Framework. *Creative Business and Sustainability Journal, 46*(2), 62-82.
Caluza C (2024). Exploring the Role of Destination Resilience Plans in Promoting Tourism: A Literature Review. *JPAIR Multidisciplinary Research*, *57*(1), 164-176.
Cohen W M, Levinthal DA (1990) Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly 35*, 128–152.
Chewning EG, Harrell AM (1990) The effect of information load on decision makers' cue utilization levels and decision quality in a financial distress decision task. *Accounting, Organizations and Society*, 15(6), 527–542.
Daimon H, Miyamae R, Wang W (2023). Navigating theories of actions on disaster prevention: a systematic review on disaster research in Japan. *Natural Hazards Review, 24*(2), 03123002.
Della Corte V, Del Gaudio G, Sepe F, Luongo S (2021) Destination resilience and innovation for advanced sustainable tourism management: A bibliometric analysis. *Sustainability, 13*(22), 12632.
Denyer D (2017) *Organizational Resilience: A summary of academic evidence, business insights and new thinking*. BSI and Cranfield School of Management, 8- 25.
Duchek S (2020) Organizational resilience: a capability-based conceptualization. *Business Research, 13*(1), 215-246.
Duerig M (2023) *New study projects sea level rise to drain Florida's financial future.* Central Florida Public Media. https://www.wusf.org/environment/2023- 10-16/new-

study-projects-sea-level-rise-drain-floridas-financial-future

EPA (2016) What Climate Change Means for Florida EPA august 2016 Retrieved from https://www.epa.gov/sites/default/files/2016-08/documents/climate-change- fl.pdf

Eppler MJ, Mengis J (2004) The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The Information Society*, 20(5), 325–344.

Fabry N, Zeghni S (2019) *Resilience, tourist destinations and governance: an analytical framework.* Tourismes et Adaptations, Elya Editions, 96-108.

Filimonau V, De Coteau D (2020) Tourism resilience in the context of integrated destination and disaster management (DM2). *International Journal of Tourism Research, 22*(2), 202-222.

Flannery T (2017) *Sunlight and Seaweed: An Argument for How to Feed, Power and Clean Up the World.* Melbourne: Text Publishing.

Flugman E, Mozumder P, Randhir T (2012) Facilitating adaptation to global climate change: perspectives from experts and decision makers serving the Florida Keys. *Climatic Change,* 112, 1015-1035.

Fontanari M, Traskevich A (2025) Confidence-model: Cooperative networks to develop destination resilience. *Journal of Destination Marketing & Management*, 35, 100962.

Gabler, CA., Osland, MJ., Grace, JB., Stagg, CL., Day, RH., Hartley, S. B., ... & McLeod, JL. (2017) Macroclimatic change expected to transform coastal wetland ecosystems this century. *Nature Climate Change, 7*(2), 142-147.

Gino F, Margolis JD (2011). Bringing ethics into focus: How regulatory focus and risk preferences influence (un) ethical behavior. *Organizational Behavior and Human Decision Processes*, *115*(2), 145-156.

Grisé ML, Gallupe RB (1999) Information overload: Addressing the productivity paradox in face-to-face electronic meetings. *Journal of Management Information Systems*, 16(3), 157–185.

Hall CM., Safonov A, Naderi Koupaei S (2023) Resilience in hospitality and tourism: issues, synthesis and agenda. *International Journal of Contemporary Hospitality Management, 35*(1), 347-368.

Higgins ET (1997) Beyond pleasure and pain. *American Psychologist, 52*, 1280–1300.

Higgins ET, Friedman RS, Harlow RE, Idson LC, Ayduk ON, Taylor (2001) Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology, 31*(1), 3-23.http://dx.doi.org/10.1002/ejsp.27

Ho GK, Lam C, Law R (2023) Conceptual framework of strategic leadership and organizational resilience for the hospitality and tourism industry for coping with environmental uncertainty. *Journal of Hospitality and Tourism Insights, 6*(2), 835- 852.

Hoffmann S, Deppisch T, Fontanari M, Traskevich A (2023) Creating cooperative value for destination resilience. *Tourism Management Perspectives, 48*, 101160.

Holder A, Ruhanen L (2017) Identifying the relative importance of culture in Indigenous tourism experiences: netnographic evidence from Australia. *Tourism Recreation Research, 42*(3), 316-326.

Hystad PW, Keller PC (2008) Towards a destination tourism disaster management framework: Long-term lessons from a forest fire disaster. *Tourism Management, 29*(1), 151–162. https://doi.org/10.1016/j.tourman.2007.02.017.

Ivkov M, Blešić I, Janićević S, Kovačić S, Miljković Đ, Lukić T, Sakulski D (2019) Natural disasters vs hotel industry resilience: An exploratory study among hotel managers from Europe. *Open Geosciences, 11*(1), 378-390.

Jiang Y, Ritchie BW, Verreynne ML (2021) Developing disaster resilience: A processual and reflective approach. *Tourism Management*, *87*, 104374.

Jiang W, Wang L, Chu Z (2020) How does CEO regulatory focus matter? The impacts of CEO promotion and prevention focus on firm strategic change. *Journal of Management, 46*(8), 1445–1474.

Jiao X, Li G, Qiu RT, Chen JL (2025) Analyzing destination resilience from a spatiotemporal perspective, *Journal of Travel Research, 64*(5), 1186-1205.

Johnson PD, Smith MB, Wallace JC, Hill AD, Baron RA (2015) A review of multilevel regulatory focus in organizations. *Journal of Management*, 41(5), 1501–1529.

Jones P, Comfort D (2020) The role of resilience in research and planning in the tourism industry. *Athens Journal of Tourism*, *7*(1), 1-16.

Kark R, Van Dijk D (2019) Keep your head in the clouds and your feet on the ground: A multifocal review of leadership–followership self-regulatory focus. *Academy of Management Annals*, 13(2), 509–546.

Keller C, Siegrist M, Gutscher H (2006) The role of the affect and availability heuristics in risk communication. *Risk Analysis, 26*(3), 631–639. https://doi.org/10.1111/j.1539-6924.2006.00773

Kirmani A, Zhu R (2007) Vigilant against manipulation: The effect of regulatory focus on the use of persuasion knowledge. *Journal of Marketing Research*, 44(4), 688–701.

Linnenluecke MK, Griffiths A, Winn M (2012) Extreme weather events and the critical importance of anticipatory adaptation and organizational resilience in responding to climate change. *Business Strategy and the Environment, 21*(1), 17–32.

Lombardi S, e Cunha MP, Giustiniano L (2021) Improvising resilience: The unfolding of resilient leadership in COVID-19 times. *International Journal of Hospitality Management*, 95, 102904.

Manczak EM, Zapata-Gietl C, McAdams DP (2014) Regulatory focus in the life story: Prevention and promotion as expressed in three layers of personality. *Journal of Personality and Social Psychology, 106*(1), 169–181.

Marcazzan E, Campagnolo D, Gianecchini M (2022) Reaction or anticipation? Resilience in small-and medium-sized enterprises. *Journal of Small Business and Enterprise Development, 29*(5), 764-788.

Matyas C, Srinivasan S, Cahyanto I, Thapa B, Pennington-Gray L, Villegas J (2011) Risk perception and evacuation decisions of Florida tourists under hurricane threats: A stated preference analysis. *Natural hazards,* 59, 871-890.

Melián-Alzola L, Fernández-Monroy M, Hidalgo-Peñate M (2020) Hotels in contexts of uncertainty: Measuring organisational resilience. *Tourism management perspectives, 36*, https://doi.org/10.1016/j.tmp.2020.100747.

Mileti, D. (1999). *Disasters by design: A reassessment of natural hazards in the United States*. National Academies Press.

Molden DC, Higgins ET (2008) How preferences for eager versus vigilant judgment strategies affect self-serving conclusions. *Journal of Experimental Social Psychology*, 44(5), 1219– 1228.

Nakagawa Y, Shaw R (2004) Social capital: A missing link to disaster recovery. *International Journal of Mass Emergencies & Disasters,* 22(1), 5-34.

NOAA (n.d.) *Tourism Resilience Index*. U.S. Climate Resilience Toolkit. Climate.gov. https://toolkit.climate.gov/tool/tourism-resilience-index

Olalia R (2024) Tourism Resilience in CALABARZON Region Philippines. *Diversitas Journal, 9*(1_Special).

O'Neill S (2023) *Independent Hotels in the U.S. Pressured by the Big Brands.* Skift. Hotels. https://skift.com/2023/03/01/independent-hotels-in-the-u-s-pressured-by-the-big-brands.

Posch E, Eckert E, Thiebes B (2024) Towards a future conceptualization of destination resilience: Exploring the role of actors, agency and resilience narratives. *Journal of Tourism Futures*, 10(3), 461–475.

Richins H, Scarinci J (2009) *Climate change and sustainable practices: A case study of the resort industry in Florida.*

Scott N, Law E (2006) Tourism crises and disasters: Enhancing understanding of system effects. *Journal of Travel & Tourism Marketing, 19*(2- 3), 149–158.Seraphin H (2018) Natural disaster and destination management: The case of the Caribbean and hurricane Irma. *Current Issues in Tourism, 22*(1), 21–28.

Sharma S, Dogra J, Khan S (2024). Destination resilience and transformations in the tourism sector: new tendencies in destination development and management. *Tourism & Management Studies, 20*(4), 17-26.

Sheldon PJ, Pollock A, Daniele R (2017) Social Entrepreneurship and Tourism: Setting the Stage. In Sheldon, P., and Danielle, R. (eds) *Social Entrepreneurship and Tourism. Tourism on the Verge* (pp. 1-18). Springer, Cham.

Siegrist M, Gutscher H, Earle TC (2005) Perception of risk: The influence of general trust, and general confidence. *Journal of Risk Research*, 8(2), 145–156.

Sinha R, Ola A (2021) Enhancing business community disaster resilience. A structured literature review of the role of dynamic capabilities. *Continuity & Resilience Review*, *3*(2), 132-148.

Steynor A, Pasquini L (2022). Using a Climate Change Risk Perceptions Framing to Identify Gaps in Climate Services. *Frontiers in Climate,* 4, 782012.

Su W, Junge S (2023) Unlocking the recipe for organizational resilience: A review and future research directions. *European Management Journal*.

Sydnor-Bousso S, Stafford K, Tews M, Adler H (2011) Toward a resilience model for the hospitality & tourism industry. *Journal of Human Resources in Hospitality & Tourism,* 10(2), 195-217.

Tompkins E, Hurlston LA (2012) Public–private partnerships in the provision of environmental governance: A case of disaster management. In: Adger N, Lorenzoni I, O'Brien K (eds) *Adapting institutions: Governance, complexity and social–ecological resilience*, 171–189.

Touryalai H (2013) *The New Hotel Tycoons: Why Private Equity Loves The Lodging Industry*. Forbes. Money: Wealth Management. https://www.forbes.com/sites/halahtouryalai/2013/09/05/the-new-hotel-tycoons-why-private-equity-loves-the-lodging-industry/?Sh=46ab54eb4918

Traskevich A., Fontanari, M (2025) Resilience agility in tourism and hospitality: Empirical research using 3D modelling. *International Journal of Hospitality Management,* 126, 104013.

Tsai CH, Wu TC, Wall G, Linliu SC (2016) Perceptions of tourism impacts and community resilience to natural disasters. *Tourism Geographies, 18*(2), 152-173.

Tushman NL, Nadler DA (1978) Information processing as an integrating concept on organizational design. *Academy of Management Review*, 3, 613–624. \

Vakilzadeh K, Haase A (2021) The building blocks of organizational resilience: A review of the empirical literature. *Continuity & Resilience Review,* 3(1), 1-21.

Van Valkengoed AM, Steg L, Perlaviciute G (2021) Development and validation of a climate change perceptions scale. *Journal of Environmental Psychology*, 76, 101652. Wang T, Yang Z, Chen X, Han F (2022) Bibliometric analysis and literature review of tourism destination resilience research. *International Journal of Environmental Research and Public Health, 19*(9), 5562.

Walters G, Mair J, Ritchie B (2015) Understanding the tourist's response to natural disasters: The case of the 2011 Queensland floods. *Journal of Vacation Marketing*, 21(1), 101- 113.

Weis M, Klarner P (2022) A CEO's future temporal depth and organizational resilience. *Schmalenbach Journal of Business Research*, 74(4), 659–693.

Xie B, Brewer MB, Hayes BK, McDonald RI, Newell BR (2019) Predicting climate change

risk perception and willingness to act. *Journal of Environmental Psychology,* 65, 101331.
Yamamura E (2016) Natural disasters and social capital formation: Th e impact of the Great Hanshin-Awaji earthquake. *Papers in Regional Science, 95*(S1).
Yoder K (2024) Florida is about to scrub climate change from most of its laws. Canada's National Observer. https:// www.nationalobserver.com/2024/04/02/news/florida-about-scrub-climate- change-most-its-laws
Yoon Y, Sarial-Abi G, Gürhan-Canli Z (2012) Effect of regulatory focus on selective information processing. *Journal of Consumer Research*, 39(1), 93–110.
Zou LW, Chan RY (2019) Why and when do consumers perform green behaviors? An examination of regulatory focus and ethical ideology. *Journal of Business Research*, 94, 113– 127.

Appendix

Table 1. *Measures for Natural Disaster Preparedness*

	Hotel Predictor	Scale Items*
1.	**Economic capital**	The hotel property has comprehensive multi-hazard insurance coverage Natural disaster relief funds are included in the hotel budget Hotel owners, shareholders or investors have earmarked natural disaster relief funds
2.	**Corporate capital**	Corporate officers are supportive of hotel management's natural disaster preparedness initiatives Corporate headquarters provide natural disaster preparedness resources Corporate level procedures or protocols are in place to respond to natural disasters
3.	**Management capital**	Hotel managers conduct staff training for natural disaster preparedness The management team has documents and procedures in place in the event of a natural disaster Natural disaster response resources are onsite (e.g. emergency water, medical, and food supplies, well- marked evacuation routes, safe zones)
5.	**Human capital**	All employees participate in disaster response exercises Employees would be available to work immediately following a disaster There is cohesion among team members.
	Destination Predictor	Scale Items*
6.	**Community capital**	There are community champions and/or coalitions to raise awareness regarding natural disaster preparedness Local non-profit organizations are effective in organizing resources in the event of a natural disaster Community members support information sharing regarding natural disaster preparedness Community groups are active in natural disaster mitigation efforts
7.	**Municipal capital**	Local building codes for construction standards for disaster resilience are enforced Local land-use regulations for high-risk areas like floodplains are in place Infrastructural measures (e.g. mangrove restoration, construction of sea walls, installation of flood pumps, and beach replenishment programs) have been implemented

8.	**Government capital**	The government has implemented effective monitoring and warning systems The government provides information to promote local preparedness Government grants or loans are available following a natural disaster
9.	**Industry capital**	Tourism reps (e.g. DMOs) coordinate communication regarding natural disaster preparedness (NDP) DMOs facilitate collaboration between hotels on NDP Tourism industry reps are active in local NDP efforts
10.	**Natural capital**	The hotel is not directly exposed to natural hazards There are natural barriers (e.g., coastal reefs, coastal sand dunes or mangroves) in the area The local climate is less prone to natural disasters (low incidence of hurricanes, floods, or extreme heat waves) than others The local environment is characterized by healthy ecosystems

Adapted from Ivkov et al. (2019)

Table 2. *Measures for Regulatory Focus*

This set of questions asks HOW FREQUENTLY specific events actually occur or have occurred in your life. Please indicate your answer to each question by circling the appropriate number below it. (never 1 to often 5)

1. Compared to most people, are you typically unable to get what you want out of life?
1 2 3 4 5
2. Growing up, would you ever "cross the line" by doing things that your parents would not tolerate?
1 2 3 4 5
3. How often have you accomplished things that got you "psyched" to work even harder?
1 2 3 4 5
4. Did you get on your parents' nerves often when you were growing up?
1 2 3 4 5
5. How often did you obey rules and regulations that were established by your parents?
1 2 3 4 5
6. Growing up, did you ever act in ways that your parents thought were objectionable?
1 2 3 4 5
7. Do you often do well at different things that you try?
1 2 3 4 5
8. Not being careful enough has gotten me into trouble at times.
1 2 3 4 5
9. When it comes to achieving things that are important to me, I find that I don't perform as well as I ideally would like to do.
1 2 3 4 5
10. I feel like I have made progress toward being successful in my life.

1 2 3 4 5
Certainly true certainly false

I have found very few hobbies or activities in my life that capture my interest or motivate me to put effort into them.
1 2 3 4 5
Certainly true certainly false

Source: Higgins et al. (2001)

Table 3. *Measures for Prior knowledge*

	Predictor	Scale Items*
1.	**Knowledge about former crises**	*To what extent have you personally experienced the impact of a natural disaster?* 0) I have had no direct experience of a natural disaster 1) I have experienced only minor disruptions due to a natural disaster (e.g., brief power outage, travel delays). 2) I have experienced a natural disaster with limited personal or local impact. 3) I have experienced a moderate natural disaster that affected my home, work, or community. 4) I have had direct experience of a severe natural disaster with significant personal or community consequences. 5) I have had direct experience of at least one catastrophic natural disaster.
2.	**Knowledge about the physical environment**	*How well do you understand the physical environment in your area as it relates to disaster risks (e.g., flood zones, landslide-prone areas, etc.)*? 1) Very Low – I have no knowledge of the physical risks in my area and am unaware of any hazard-specific information or maps. 2) Low – I have heard of certain risks (e.g., floods or earthquakes) but do not know where to find specific information on how it applies to my location. 3) Moderate – I have some knowledge of local disaster risks and have seen hazard-specific materials (e.g., flood maps), but I don't use them actively. 4) High – I know the specific risks to my area and have accessed and understood hazard-specific information (e.g., local flood or earthquake maps). 5) Very High – I have a detailed understanding of my area's environmental risks, frequently use hazard-specific information to inform my preparedness actions, and could explain these risks to others.

2.	**Knowledge about successful actions taken**	*To what extent have you, in your professional capacity, been directly involved in managing a response to a natural disaster?* 0) Not at all involved 1) Slightly involved 2) Somewhat involved 3) Moderately involved 4) Highly involved 5) Fully responsible for managing the response

Source: Adapted from Duchek (2020)