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Review

Toward an Organizational Theory of Resilience: An Interim Struggle

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Abstract: While organizational resilience is widely considered as critical to sustainability, gaps in both the scholarly and professional literature exist. First, stronger conceptualization of the term is needed. Second, little is known about how organizational resilience can be continuously accomplished via daily practices and processes. Finally, the ongoing organization theory development does not sufficiently address these gaps. Contributing to the literature by filling in these fundamental gaps, the present study integrates the disconnectedly growing literature into an organizational theory of resilience. Based on the General Systems Theory, the resulting theory comprises inputs of human resources, socio-cultural values, institutional settings, and social and environmental issues, enabling organizational structure, value and belief subsystem, resilience mindset, sustainability practices, adaptive and buffering capacities, and sustainability performance as the output. Their dynamic relationships are discussed and expressed via a model and propositions, followed by implications for researchers and practitioners.

Keywords: corporate sustainability; resilience; organizational resilience; theory building; sustainability; general systems theory

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1. Introduction

Why do some organizations function effectively as they encounter large disruptions and jolts introduced by the environment? Why do they thrive, grow, and are even well-prepared to tackle future challenges, while others struggle during a period of enduring strain and unfortunately fail? The answer to these questions is increasingly critical in today's progressively closely tied and interactively multifaceted business environment where the unexpected is pervasive with a speed that can intensify into catastrophe [1].

In the corporate sustainability literature [2,3], such an organizational ability to go through disruptions and environmental jolts successfully is called resilience. While the resilience concept has grown to be fundamentally crucial for organizations, gaps in the scholarly literature exist [4]. Among them, stronger conceptualization of the term indicates a requirement to integrate the disconnectedly growing literature on organizational resilience to improve our understanding of the concept [5,6] as it is often confused with other similar concepts of flexibility, adaptability, and agility [7]. Clearly, organizational resilience is complex and multidimensional. We clarify the concept of organizational resilience and provide an overarching definition.

Additionally, our literature review confirms that scholars do not actually know how resilience can systematically be accomplished in a real-world organizational setting [8]. It remains uncertain how a resilient organization can be constructed and nurtured [9]. In practice, business organizations have become painfully aware of the need for resilient organizational systems during the COVID-19 pandemic [3]. Numerous organizational leaders have intended to develop their businesses resiliently. However, few systematically

know how to do so [10]. In addition, few business schools have resilience as a topic in class [10]. Consequently, very few organizations have a clear idea about designing for, measuring, and managing organizational resilience in practice [10].

In terms of theory, the ongoing organization theory development does not sufficiently address these knowledge gaps and a coherent, organizational theory of resilience is needed to be constructed to sufficiently address the gaps [11,12] as it would offer significant insights into how organizations and their systems continue to deliver desirable sustainability performance regardless of strain, adversity, and significant barricades to adaptation. Such a theory would additionally advocate an innovative perspective by arguing against the dominant deterministic perspective in organization theory that organizations are more efficacious than the dominant perspective allows [13].

Therefore, the following research questions are used to guide the development of our proposed theory of organizational resilience.

Given the dynamic nature of organizational resilience, we adopt the General Systems Theory by Von Bertalanffy [14], the theory building approach by Dubin [15], and the Mind-sponge framework [16] as strategies to build our proposed theory. Through the view of the General Systems Theory [14], we introduce an organizational theory of resilience by first highlighting significant contributions of this study, defining organizational resilience, discussing the organizational resilience system and its boundary, explaining the mechanisms of the system, outlining a potential research agenda, and drawing some important managerial implications for organizational leaders.

2. Significant Contributions

From our review of major reviews of the literature from 2010 to 2021 (Table 1), the resilience literature is predominantly conceptual, focusing on concepts and principles with some fundamental gaps. The early reviews focus on conceptualizing the resilience concept. Notably, previous studies have focused on resilience after an abruption, disturbance, or crisis, as opposed to resilience as an ongoing process. Among the gaps, there is limited knowledge on how organizational resilience is developed and maintained over time via daily practices and processes [9,17,18]. As indicated in Table 1, our review also endorses scholars [17] who indicated that no coherent theory on organizational resilience exists. Scholars have borrowed theories from other areas to explain the resilience phenomenon. In 2021, Hussen saad, Hagelaar, van der Velde, and Omta [19] studied and scrutinized theories underpinning past research on corporate resilience. They found that the crisis and disaster management theory, the resource-based view (RBV) theory, dynamic capabilities theory, and system theories have been used by researchers to explain predicting factors influencing organizational resilience. In particular, crisis and disaster theories have dominated the organizational resilience research in the business and management field [6], while the resource-based view (RBV) theory has dominated the supply chain resilience literature [20].

Although a few existing models or frameworks [6,9,21,22] exist in the literature, they focus on different aspects of organizational resilience (e.g., measurement, crisis management, capabilities). In addition, despite the fact that these models meet the components of good theory [14,15], they are not holistic in a sense that they are not a whole approach to organizational resilience that allows an organization to continue to deliver social, environmental, and economic performance or sustainability performance as the output overtime (see Table 1). Since resilient organizations are able to preserve their core functions and recover from adversity, which helps them to survive disturbances better than their less resilient peers [23,24], they must be able to continue to deliver their sustainability performance despite great difficulty. These few models only focus on different aspects such as crisis management, resilience processes, and organizational growth as their model objective, instead of sustainability performance. Indeed, there is a lack of an overarching theoretical framework of organizational resilience to ensure overall sustainability [8]. Fundamentally, more knowledge is needed to explain how organizational resilience works day to day in an organization in the constantly changing business environment. In other words, there is

limited knowledge on how resilience is daily practiced in an organization. Finally, given the dynamic nature of organizational resilience, none of the existing frameworks/models are dynamic.

Therefore, the present study is developed to fill in these critical gaps in the literature by proposing a coherent and dynamic theory of organizational resilience to explain (a) organizational components influencing organizational resilience; (b) how organizational resilience works to ensure sustainability performance over time; and (c) how organizational resilience is maintained in daily practices and processes.

Table 1. A comparison of major reviews on organizational resilience in business and management context.

	Comparison Criteria	Major Reviews on Organizational Resilience in Business and Management Context									
		Erol, Sauser, and Mansouri [25]	**Bhamra, Dani, and Burnard [26]**	**Limnios, Mazzarol, Ghadouani, and Schilizzi [27]**	**Kantur and İşeri-Say [19]**	**Linnenluecke [28]**	**Williams, Gruber, Sutcliffe, Shepherd, and Zhao [22]**	**Ma, Xiao, and Yin [29]**	**Duchek [8]**	**Hillmann and Guenther [21]**	**Hussen saad, Hagelaar, van der Velde, and Omta [18]**
1	Objective	Reviews the literature and conceptualizes resilience with the focus on concepts of ecology and systems; authors aim to provide a holistic definition of resilience.	Reviews the literature on resilience in the context of organizations and identifies the ecological perspective as most prominently reflected in the literature; based on that they define resilience for organizations.	Develops a typology for organizational resilience; authors show that resilience can have desirable and undesirable aspects.	Develops an integrative framework for organizational resilience	Focuses on historical development of resilience in business and management literature; identifies five streams of literature based on a Histcite-analysis.	Integrates two research streams and develops a framework related to the key themes of crisis and resilience research; defines capabilities for durability, organizing and adjusting, responding to major disturbances, and a feedback loop from these experiences.	Proposes an integrated concept of organizational resilience consisting of three dimensions of cognitive, behavioral and contextual resilience.	Conceptualize resilience as a meta-capability and decompose the construct into its individual parts. Then, suggest three stages of anticipation, coping, and adaptation that together form organizational resilience. and give an overview of underlying capabilities that together form organizational resilience.	Reviews the literature on organizational resilience construct.	Review the literature on organiza-tional resilience to gain insight into resilience conceptual-ization in an SME context.

Table 1. *Cont.*

Comparison Criteria		Major Reviews on Organizational Resilience in Business and Management Context									
		Erol, Sauser, and Mansouri [25]	**Bhamra, Dani, and Burnard [26]**	**Limnios, Mazzarol, Ghadouani, and Schilizzi [27]**	**Kantur and İşeri-Say [19]**	**Linnenluecke [28]**	**Williams, Gruber, Sutcliffe, Shepherd, and Zhao [22]**	**Ma, Xiao, and Yin [29]**	**Duchek [8]**	**Hillmann and Guenther [21]**	**Hussen saad, Hagelaar, van der Velde, and Omta [18]**
2	Focus	Defining resilience concept; Information Technology	Defining organizational resilience; Ecology	Defining organizational resilience	Developing a resilience framework focusing on heightened sensitivity and increased wisdom of the post-event organization.	Historical development of business resilience	Developing a resilience framework focusing on crisis management	Developing an integrated concept of organizational resilience	Conceptualization of organizational resilience	Measuring organizational resilience	Categorizing research in organizational resilience.
3	Good theory components										
3.1	Input/throughout/output [14]	No.	No.	No.	Yes.	No.	Yes.	No.	No.	Yes.	No.
3.2	Process and outcome knowledge [15]	No.	No.	No.	Yes, but focusing on organizational evolvability, not sustainability performance as the outcome.	No.	Yes, but focusing on crisis management, not sustainability performance as the outcome.	No.	No.	Yes, but focusing on organizational growth, not sustainability performance as the outcome.	No.
3.3	A holistic, dynamic framework/model to maintain organizational resilience as a continuing process	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.

3. Theory Building Approach

Theory building is a determined, recurrent process [30]. In this process, coherent explanations, descriptions, and interpretations of observed phenomena are produced, validated, and polished [30]. Successful theory construction leads to outcome and process knowledge [15]. Process knowledge improves our insight about what something means and how it works. It explains how the theory's components interact in a phenomenon. Outcome knowledge is the knowledge that can explain and predict the phenomenon. Our theory is expected to bring about both outcome and process knowledge about organizational resilience.

In building the theory of organizational resilience, we follow the General Systems Theory [14] that suggests a process of theory construction with a focus on building universal concepts, postulates, and principles. The General Systems Theory approach views any system as the result of dynamic interrelationship between its component parts and its whole by assuming that systems are self-regulating and self-correcting via feedback. Thus, interactions between systems are core to this approach. Indeed, the General Systems Theory approach focuses on the dynamic interactions between systems, highly relevant to organizational resilience. Essentially, system parts are determinate mutually with the whole.

A system is surrounded by environmental elements outside the system that could potentially affect all or part of the system. The environment itself can be made up of various other systems. Each system has boundaries that define the system and differentiate it from its environment and other systems. Therefore, the environmental impact is to be taken into account in understanding the dynamic processes within a system. In the present study, the focal system is the organizational resilience system in which the environment abruptly instigates the system.

Two types of systems exist: open and closed systems [14]. In an open system, a transfer of environmental events across its boundary is permitted. In return, the system puts out its products to the environment. Really, interactions exist between the system and its environment. On the other hand, such a transfer is not allowed in a closed system. Naturally, organizations are thus open systems since a transfer of environmental events across their boundary is allowed. In developing a theory of organizational resilience, the present study adopts the open systems view.

In a system, inputs, throughputs, and outputs interact. An input is what is put into a system to deliver an output. Open systems take in an input from the environment [14]. An output is what delivered by a system into the environment as the obtained result that reflects the capability of system to achieve its objectives. Throughput is a process of the system to turn an input into an output. In other words, a throughput is a process that enables the system to achieve its goals. In our present study, the overarching goal to achieve is organizational resilience.

Two dominant characteristics of the General Systems Theory are feedback and equilibrium [14]. Feedback is information concerning an output fed back into the system as an input, indicating a reciprocal path in a system. Equilibrium is the homogeneity of internal structures of a system and cooperation among the system's parts, which allows the system to adapt to its constantly changing environment.

In the process of constructing the theory of organizational resilience, we need to identify the boundary, inputs, throughputs and outputs, and their causal relationships. In addition, the feedback and equilibrium need to be determined. According to Whetten [31], 'what', 'how', and 'why' are the required elements of a simple theory. We also complement the General Systems Theory approach with the Mindsponge framework [16] that provides a way to explain how and why an individual absorbs and ejects cultural values. Therefore, we use the following broad questions to guide our theory development.

1. What do we know about organizational resilience?
2. What are components of organizational resilience? How and why are they related?

In answering the research questions, a various set of possible, sensible, experimental, and/or epistemological conjectures [31] is contrasted and compared to form highlights [32] of major concepts and variables of the organizational resilience theory. Each core element of the theory is identified and defined, including defining the organizational resilience concept. Then, we outline the boundaries of the theory, focusing specifically on what the theory does and does not predict about. We then explore system state dynamics, followed by describing the nomological network among the central concepts of the theory. Finally, the basic foundational elements of the theory are demonstrated in a graphical model and propositions, which specify the presumed laws of interaction.

4. Organizational Resilience

As a cross-disciplinary concept, resilience suggests vibrant development of sophisticated, adaptive systems interplaying across spatial and temporal dimensions [33]. The concept has been found in a large variety of fields, including psychology, environmental science, engineering, and organizational studies, although originally appearing in the fields of child psychology [34–36] and ecology [37,38].

The application of resilience in the field of organization studies has been found in a variety of areas such as crisis and disaster management, sustainable organizations, and corporate sustainability literature [1,12,39,40]. In an organizational setting, resilience is said to help organizational members to keep their hope up high and strength in a tough period [22,41]. Indeed, resilience suggests toughness, strength, tenacity, and constructive perception of abrupt situations, which help organizational members to endure negative consequences of the situations and to get back on track with a high level of optimism and buoyancy [6,42]. As a matter of fact, a resilient organization is a system full of hope since hope is a faith on the ground of a realistic evaluation of challenges based on one's capabilities, conditions, and context, and shields one from the vagaries of unanticipated events [43,44]. It inspires belief and value in constantly renewing and improving self-evaluation of the surrounding context. A resilient organization believes in its organizational ability to effectively apply this knowledge in encountering unanticipated incidents. Related to hope, emotion is central to answering how and why resilient organizations can sense emerging weak signals and take an appropriate action accordingly [45], consistent to the sustainability organizational culture where emotions among organizational members play a crucial role in sustaining organizational success [46,47].

Although scholars and practitioners have been increasingly interested in organizational resilience, the conceptualization of resilience is still in its formative years [8]. The concept has long been criticized for being ambiguous and lacking a commonly agreed definition [21]. With this circumstance, the significance and prominence of resilience for research and practice have been reduced [21,28,48–50]. Therefore, this lack of strong conceptualization confirms the need of the present theory development.

Additionally, there is also no consensus about which elements the resilience concept contains [8]. Most scholars [21,51,52] focus on organizational attributes, processes, or resources that appear pivotal to resilience. Among them, resilience is typically regarded as an outcome, or an organizational capacity to function effectively during calamity or recover from interruptions [2,21]. It still remains debatable what organizational resilience does, how it can be achieved [3,51], and which element it contains [8], although mounting empirical evidence suggests that organizational resilience is related to being long-term oriented, investing in organizational members, nurturing a cohesive organizational culture, exhibiting ethical behavior, being responsible for the society, and championing innovation [40,53,54]. Therefore, the present theory development attempts to answer these questions.

Although many questions exist about resilience, it is clear that resilience emerges from the exchanges of a dynamic system as it functions within a dynamic context [55,56]. It is not a static trait that exists or does not exist in organizations [27,57]. Instead, resilience is a set of organizational capabilities that detect and rectify maladaptive tendencies that permit organizations to withstand unanticipated, difficult conditions [21,58]. Conceptually,

resilience in organizations is characterized by two capabilities. The first is its capability to quickly process and respond to environmental signals [52], suggesting that organizational members must be highly capable [59] and well informed of common organizational direction and decision-making guidelines. The second is its capability to develop and procure adaptable resources that can be utilized in a whole range of exchangeable substitutes [60,61], indicating a strong, supportive relationship with a wide range of stakeholders. These two capabilities support organizations in rectifying maladaptive tendencies and coping with surprises. Our theory of organizational resilience is developed with these two capabilities in mind.

Our literature review has further indicated that low volatility, continuous improvements, and strong viability lead to resilience outcomes. Resilience helps organizations to persist over the long run and endure crises by assisting them to function as complicated dynamic systems, functioning within complex, dynamic environmental systems. As a matter of fact, to be resilient is to be vitally prepared for dealing with adversity. Resilience indeed demands a continuous enhancement in overall capability [62,63]. This capability incorporates a general capacity to assess, to understand, and to act, with no prior knowledge about what and when one will be called upon to take an action. Essentially, resilience depends on past learning and cultivates future learning. However, resilience occurs autonomously from learning activities in that it signifies a broader pool of capabilities [63,64], suggesting that the organizational learning activities relevant to resilience must lead to the development of organizational capabilities.

Consistent with the General Systems Theory [14], successfully resiling from one difficulty to another essentially instructs a hopeful feedback loop to strengthen an organization's capabilities and resilience for the upcoming challenges. Indeed, resilience goes way beyond simply bouncing back from a catastrophe. Really, it means an organizational capability to vigorously reconstruct its model as the neighboring circumstances keep changing [65].

Given a recent extensive literature review by Hillmann [66], resilience is an achievable organizational attribute that can be proactively created by acquiring relevant resilience capacities and investing in relevant resources, our literature review reveals four major overlapped organizational capacities leading to organizational resilience, ranging from 'organizational adaptive capacity' [67], 'organizational flexibility' [68], 'organizational change capacity' [41], to 'organizational buffering capacity' [21].

Organizational adaptability is described as the capacity of an organization to react to changing external environment [67,69]. Adaptive capacity is at times examined as an individual notion. Moreover, resilience is sometimes considered as a subcategory of adaptive capacity, and resources and skills organizations have to continue their viability and growth in reference to the demands from the environment [70]. Resilience often brings about a renewed organization distinctive from the one in the pre-disruption state.

Similarly, organizational flexibility is a mixture of a scope of organizational capabilities that permit organizations to adjust timely under unexpected shifts in the environment [68]. Clearly, operational flexibility is required for the organizational ability to take an action effectively and timely [67] to the changing environment. Finally, organizational change capacity is a mixture of organizational capabilities that permits organizations to change more effectively and quickly than their counterparts according to the changing environment [41].

Obviously, these first three concepts overlap in that they all suggest an organizational adaptability to the environmental changes. After a disruption, organizational adaptation is needed for organizational continuity and particularly necessary in the new surrounding conditions [6]. When an organization is flexible, it can change itself and adapt timely in response to the changing environment.

Clearly different from the previous three, organizational buffering capacity is defined as "the regulation and/or insulation of organizational processes, functions, entities, or individuals from the effects of environmental uncertainty or scarcity . . . buffering includes efforts to mitigate uncertainty's effects, it does not encompass actions taken to alter the environment directly" [71] (p. 38). Notably, the concept of organizational buffering capacity

is in line with the concept of organizational immunity [72] that suggests, with immunity, sustainable organizations are not affected by an external change.

All these concepts suggest an organizational ability to effectively deal with abrupt changes in the environment so that the organization will not only survive but also thrive. Therefore, organizational resilience is defined in the present study as an organizational capability that improves both organizational adaptability and organizational buffering capacity in response to abrupt environmental changes so that the organization bounces back and strengthens its current entity by dynamically reinventing itself for the future as the surrounding environmental changes.

5. Fundamental Components of Organizational Resilience Theory

In this section, we introduce fundamental components of organizational resilience theory, starting from the theory's boundaries, inputs, enabling organizational structure, value and belief subsystem, resilience mindset, corporate sustainability practices, and sustainability performance as the output. The dynamic relationships among these components are also discussed.

5.1. Theory's Boundaries

Based on the General Systems Theory [14], we define the boundaries of our theory, explained in terms of its objectives to differentiate the theoretical domain from other aspects of the world unrelated or not specifically addressed by our theory [31].

Our proposed theory is concerned only with components of an organization that is effectively responsive to the constantly changing environment. The theory predicts that certain organizational components, instigated by the external environment, interact dynamically to ensure organizational resilience as measured by organizational adaptive and buffering capacities. When an organization is resilient, it continues to deliver competitive sustainability performance as measured by social, environmental, and economic outputs. With open boundaries [31], our theory predicts that there is exchange over the boundaries between the external environment and the organization, which in turn triggers relevant changes in the organizational resilience system. Once triggered, the system adapts to reach a new equilibrium.

In the next section, we explain how the literature review has contributed meaningfully to the development of our theory of organizational resilience. We first identify and define organizational resilience elements within the organizational resilience system. We then designate the elements as inputs, throughputs and outputs based on the General Systems Theory [14]. The feedback process and a system equilibrium are also discussed.

As our literature review indicates that the components of organizational resilience system include inputs, enabling organizational structure, value and belief subsystem, resilience mindset, corporate sustainability practices, organizational adaptive and buffering capacities, and the output of sustainability performance, we discuss each of these elements as comprising the organizational resilience system below.

5.2. Inputs

Based on the General Systems Theory [14], our theory of organizational resilience has four inputs: human resources, socio-cultural values, institutional settings, and social and environmental issues. Human resources are individuals with a mindset, which is a non-empty set of cultural values or beliefs that are central to individual identity [73]. They make up the workforce of an organization. Socio-cultural values are social and economic forces [74] influencing the organizational resilience system. They generally change sluggishly over time, depending on several factors such as the stage of economic development and modernization [74]. Individualism, innovation, liberty, risk propensity, and mutual respect are examples of socio-cultural values. Additionally, institutional settings [75], such as institutional policies and labor union, influence the organizational resilience system. Finally, social and environmental issues are the last input into the

organizational resilience system as they prevail in the workplace today [76]. Some well-recognized issues are for example deforestation, expanding social gaps, environmental degradation, on-going political unrest, poverty, and workplace inequality. Certainly, these issues influence business organizations and require them to respond effectively.

5.3. Enabling Organizational Structure

Our literature review indicates that resilience essentially relies upon structures that advocate competence, reinstate efficacy, and nurture growth [12]. It provides organizations with capabilities to resolve increased strain and shocks [12]. Allowing for organizational flexibility and adaptability, these capabilities enlarge informational inputs, loosen control, and reconfigure resources. In resilient organizations, we theorize that the appropriate organizational structure is one that is flexible, adaptable, and stakeholder-focused, allowing them to respond timely and effectively to abrupt environmental changes. In sustainable, resilient organizations, empirical evidence indicates that fully or partially lattice organizational structure is often found [77,78].

Although we are aware of the roles of organizational structure in supporting organizational resilience, the present study focuses only on the practices and processes upon which organizational resilience depends [12], because designing such a structure is well beyond the scope of the present study and has been discussed elsewhere [79,80].

In the next section, we discuss the value and belief subsystem and the resulting mindset, followed by the practices and their processes that support organizational resilience.

5.4. Value and Belief Subsystem

Since (a) a resilient organization is a hopeful system [43,44], (b) it is the hope that shields one from the vagaries of abrupt events by implanting a belief in the value [41,43], (c) emotion is core to how and why resilient organizations can spot weak signals as they emerge [45,81], and (d) self-compassion, as a crucial component of resilience, is more frequently found in leaders who display a set of moral virtues of humility, self-awareness, integrity, honesty, adherence to their values, empathy, openness to communication and vision [82], our organizational resilience system comprises a subsystem called value and belief.

Endorsed by the corporate sustainability literature, this value and belief subsystem is essentially part of the sustainability organizational culture [83,84] in which organizational members share the sustainability vision and values. More precisely, our value and belief subsystem is endorsed by a common assertion among scholars that social connections of organizational members define resilience and enable leadership and sensemaking in times of disruptions [66]. In our subsystem, we theorize that organizational members communicate the sustainability vision and values so that they are widely shared, the process of which is discussed below.

Beliefs and values are not easy to change as they deeply are rooted in mindsets. Many individual and institutional values exist [85]. Only a few, after several learning loops, are finally turned into core values, which identify a person or an organization, suggesting an existence of a filtering process. Based on the Mindsponge framework [16], organizational members who receive the sustainability vision and values messages go through a process called multi-filter information. Within the multi-filter information process, individual organizational members synthesize and incorporate information and values that are compatible with their existing values. They measure the difference between the emerging and existing values to assess the cost and benefit of accepting, rejecting the emerging values or even replacing existing values with the new ones. In such a process, the sustainability vision and values become shared sustainability vision and values, fundamental to the sustainability organizational culture. After several learning loops overtime, these shared values become core values.

In theory, the sustainability vision is brief, clear, future oriented, challenging, stable, abstract, inspiring, or desirable, and stakeholder-satisfaction focused [86]. Thus, when

the sustainability vision is shared by organizational members, they become full of hope. In addition, stakeholder satisfaction imagery as part of the sustainability vision reminds organizational members to focus on understanding and satisfying the needs among a whole range of stakeholders [86]. Essentially, stakeholder satisfaction imagery is related to self-compassion. Derived from Buddhism, self-compassion encompasses common humanity, self-kindness, and mindfulness [87,88]. In our theory, it means each organizational member embraces an inner dialogue about stakeholders in a way that one would have for a family member; shares a feeling of struggling, suffering, and failure that unifies the human experience; and develops the present mindfulness required to recognize suffering moments among stakeholders [89]. Empirically, self-compassion in organizations is found to be associated with increased resilience in numerous studies [82]. Therefore, we posit that stakeholder satisfaction imagery leads to improving organizational resilience via self-compassion.

Moreover, since effective organizational resilience promotes self-leading, self-managing organizational members [90,91], the sustainability vision plays a fundamental role in such a process because of its abstract quality. As opposed to being a one-time, specific goal that can be achieved and abandoned, an abstract sustainability vision facilitates the individual interpretation process among organizational members when unanticipated changes require them to act upon immediately [86]. Without vision abstractness, organizational resilience is difficult to achieve since it requires an overall organizational coherence while the self-leading and self-managing individuals at different organizational levels respond immediately to environmental changes [92].

Given that resilience is about an organizational ability to effectively deal with abrupt changes in the environment, we posit that shared vision among organizational members is not an end goal in and of itself [93]. Instead, it facilitates the process of developing common goals and objectives, views, and outputs and outcomes [93]. Shared vision functioning as a facilitator is critical since research reveals that organizations are indeed goal-seeking rather than goal-realizing systems [94,95]. They relentlessly pursue and alter goals [94,95] in response to the constantly changing external context.

In the value and belief subsystem, sustainability vision and values are interrelated. A sustainability vision alone is simply not enough because it only suggests a meaning for the long run. With no organizational efforts, the vision does not automatically turn itself into reality. It needs values as the means to realize the vision [96]. Empirically, the values to realize a sustainability vision are typically about virtues (e.g., perseverance, moderation, and generosity), social and environmental responsibility, and innovation [54]. Sustainability values must be espoused by organizational members along with the vision. Without it, the values cannot be brought to life to become living core values [96]. Essentially, the sustainability vision brings the sustainability values to life. Concurrently, the sustainability values offer meaning to the sustainability vision, forming the value and belief subsystem. We postulate that when organizational members share the sustainability vision and values, they have a certain mindset, to be discussed in the next section.

5.5. Resilience Mindset

In our theory, the value and belief subsystem develops and nurtures a specific mindset among organizational members who share the sustainability vision and values [54,97]. A mindset is defined as the lens through which individual organizational members see the world [98]. It is influenced by their underlying beliefs, values, and assumptions [98]. Given the type of sustainability vision and values they share, the organizational members have a specific mindset, from here on, called "Resilience Mindset".

A mindset refers to individuals' beliefs concerning the nature of their characteristics and traits (e.g., personality, abilities, intelligence, and talent) affecting their motivation and performance [99,100]. Two types of mindset exist: fixed and growth mindsets at the two ends of a continuum. Individuals with a fixed mindset take a position that their traits of intelligence, abilities, and talent are limited from birth, while those with a growth mindset

argue that their traits of intelligence, abilities, and talent can be learned over time [99,100]. In difficult times, individuals with a fixed mindset usually shy away from actions and initiatives possibly implying an area of deficit [101]. On the other hand, individuals with a growth mindset view difficulties as a pathway to grow to be better. They perceive challenges and setbacks as opportunities to learn, and are willing to struggle with a hope to become better [99,102]. Following performance failures, they identify goals to enhance their capabilities by pursuing challenges and being resilient [103]. They are willing to persist despite obstacles, embrace challenges, and sustain efforts while encountering resistance and challenges [103]. Clearly, the Resilience Mindset is a growth mindset.

The hopeful Resilience Mindset is characterized by moderation and perseverance, both of which are virtuous values [2]. They are moderate in a sense that they do not focus on maximizing short-term profitability and are willing to invest now for a whole range of stakeholders and long-term benefits. At the same time, they persevere without giving up easily with a hope to become even better, despite great difficulties they encounter. We discuss the Resilience Mindset and its process behind below.

The theoretical process behind the Perseverant organizational members is supported by Self-determination theory [104], the motivation behind alternatives organizational members decide to choose without external influence and interference. Perseverant organizational members exhibit self-motivating and self-determining behaviors because they have inborn emotional needs as the base for personality integration and self-motivation. They desire for autonomy and competence [105]. Emotionally, they demand joyful and fulfilling relationships [105]. By nature, all organizational members are motivated. They are rejuvenated by the enjoyment of the activity they do [106,107], keeping them hopeful to continue the activity.

Playing a major role in the Perseverance Mindset, autonomous motivation is about intrinsic and extrinsic motivation [108], and linked to more persistence, social functioning, physical and psychological well-being, and finally performance [109]. Yet, if basic human needs such as physiological and security needs are not fulfilled, the continual, proactive, and constructive likelihoods of organizational members can possibly be impeded [107], indicating the need to invest in their quality of life. On the contrary, once the basic human needs are fulfilled, the best function and progression are expected to improve, leading to organizational resilience.

Sharing the Resilience Mindset, organizational members exhibit the perseverant behavior to persist to accomplish what required to be done, despite great challenges and external influence. Organizational members with a self-compassionate attitude are more likely to improve their emotional intelligence [110] and choose effective strategies [111] to cope with the challenges. In this context, we postulate that they are self-motivated by constantly searching for a reason and strength to pursue a daunting task. They do not give up or need any extrinsic motivation. In our theory, the inner motivation comes from the fact that they commonly share and view the sustainability vision as the organizational higher-order purpose. Sharing the purpose, the perseverant organizational members are constantly intrinsically motivated to continue, leading to organizational perseverance behavior that improves the prospect of organizational resilience through their willingness to adapt, or organizational adaptive capacity.

The Resilience Mindset is also characterized by moderation. Moderation implies a sense of not too much and not too little [112]. It promotes a moderate path without overproduction or overconsumption. Businesses start to realize that it is impossible to pursue infinite growth and profits without giving attention to the society and environment [98]. Indeed, an obsession with maximizing short-term profits is in contradiction with the sustainability philosophy [113,114]. They believe ethical issues and business are interlinked [115]. A sustainability mindset and vision put business organizations on notice about sustainability issues and challenges [116]. Many times, being ethical to a wide range of stakeholders means investing in and/or for them, potentially reducing short-term profits in the process.

Moderation is a consequence of self-compassion, characterized by common humanity, self-kindness, and mindfulness [87,88], for a whole range of stakeholders. Being moderate, organizational members aim at maximizing long-term profitability by seeking a balance between short-term and long-term demands of the organization and its stakeholders [54]. It is this moderate mindset that directs organizational members to sustain their organization. Moderate individuals adopt a long-term orientation principle [77]. They balance between the long- and short-term demands of their own and those of their whole range of stakeholders. As a matter of fact, they are prudent because maximizing profits now does not guarantee the future long-term position [117], given that sustainable prosperity requires a long-term perspective that allows organizations to outperform their "shortermism" counterparts [118]. Organizational members with the moderation mindset regard organizations as an entity within the broader society and being responsible for themselves and future generations. They essentially manage to avert uncertainty and change [119].

With the moderation mindset, resilient organizations are proactive in investing and seeking out proof to examine their expectations on threat and overall health of their organizational system [1]. In doing so, they anticipate changes and invest now to prepare for future changes. Resilient organizations also counteract propensities toward threat rigidity. As a matter of fact, they treat disruptions and persisting strain as opportunities as opposed to risks [120,121]. They consistently manage small discrepancies as they emerge, with improved information processing systems. Clearly, such a mindset leads to improving organizational adaptive capacity.

In our theory, the Moderation mindset enhances organizational capacity to endure economic and social catastrophes since it advocates the process of prudent, rational decision-making. Short-term and long-term results on the organization and its stakeholders are taken into account [115]. In addition, the Moderation mindset among organizational members also leads to prudent management of risks and opportunities, enabling the organization to be more resistant to the impact of ad hoc hostility [119]. We discuss the corporate sustainability practices as a result of adopting the Perseverance Mindset below.

5.6. Corporate Sustainability Practices

As an outcome of corporate sustainability is resilience [2,21], we regard corporate sustainability practices as the practices leading to resilience in the present study. Ortiz-de-Mandojana and Bansal [24] endorse our view as they argue that corporate sustainability practices support business organizations to sense and seize strategic opportunities and minimize threats, contributing to improving their organizational resilience. Given (a) the shared sustainability vision and values and (b) that organizational resilience is said to be derived from "a set of specific organizational capabilities, routines, practices, and processes" [7] (p. 246), we postulate that organizational members with the Resilience Mindset perform the following day-to-day corporate sustainability practices [122] to bring about organizational resilience. Each practice and how it leads to organizational adaptive and buffering capacities, the two qualities of organizational resilience, are discussed below.

5.6.1. Geosocial Development Practice

The first practice is called Geosocial Development [54]. Influenced by the Resilience Mindset, the Geosocial Development practice focuses on creating trust among a whole range of stakeholders and trying to satisfy their needs. It emphasizes virtuous values as common traits of business management to improve the corporate sustainability prospect while a high degree of awareness of sincere reaction to accommodate the benefits of a large variety of stakeholders is required [123,124]. Although doing so potentially leads to an increase in expense, possibly reducing short-term profitability, resilient organizations still do. Our view is underlined by Rodríguez-Sánchez, Guinot, Chiva, and López-Cabrales [125] who predicate that corporate responsibility for the society is an antecedent to organizational resilience at work.

Driven by the value and belief subsystem, the Geosocial Development practice focuses on identifying and providing business values to a large variety of stakeholders [54,126], frequently leading to social and environmental innovation [127,128]. The Geosocial Development practice encourages continuous innovation [129,130] by improving organizational capability to adapt quickly to and to realign with the changing environment [67–69]. Organizational members with the Resilience Mindset embrace challenging opportunities and foster innovation [130]. The social and environmental innovation helps to enhance organizational adaptive capacity as the environment keeps changing constantly. In being responsible to stakeholders, the business bolsters its societal relationship to guarantee its own sustainable success. In essence, long-term profitability and organizational survival are dependent, to a large extent, upon its organizational capacity to correspond to the economic and social purposes [129,131]. We theorize that the Geosocial Development practice results in greater growth rates and less financial volatility and improves survival rates in the long run [24], which leads to improving organizational buffering capacity.

Informed by the Resilience Mindset, hopeful, resilient organizations, embracing the Geosocial Development practice, persist in investing in taking care of their stakeholders and assimilating the responsibility for the society with their entire operation and supply chain. Such a practice allows them to enhance their own adaptive capacity since satisfied stakeholders can function as an early alarm system for such shocks as a regulatory change, a strike, or a boycott [132,133], and these resilient organizations are highly socially and environmentally innovative in timely responding to the existing social and environmental issues. Such organizational flexibility originated from a wide range of stakeholders cannot be traded. Organizations must cultivate it over time. While not being tradable, organizational flexibility clearly has a financial value [134,135] since it contributes to organizational adaptability. Empirically, a long-term, trusted relationship between a resilient organization and its wide range of stakeholders is also proven supportive when the organization encounters a difficult time [24,69], improving organizational buffering capacity.

5.6.2. Resilience Development Practice

Influenced by the Resilience Mindset, the second practice is called Resilience Development [54]. In our theory, resilient organizations constantly anticipate and prepare for change. Anticipation is the organizational ability to look down the line to define how the circumstances are likely to change with a perspective that they need to make decisions and take actions now to foster required outcomes and circumvent disruptions in the future [136]. Really, prudent decision making is adopted by considering the impact of such a decision making from all organizational levels on stakeholders.

Resilience Development practice also means treating success rather lightly and being wary of the possibility of the unpredicted [137,138]. Resilience Development practice in other words always assumes that the model of risks needs constant updating and their countermeasures are always imperfect. Therefore, the grasp on safe operations is assumed to be delicate. Such a practice, informed by the Resilience Mindset, clearly improves organizational buffering capacity when the organization is unexpectedly hit by an external shock.

Additionally, identifying organizational vulnerabilities and multiple capabilities are also part of the Resilience Development practice. Once identified, the vulnerabilities and capabilities are prioritized while strategies are formulated [70]. Such a process improves organizational adaptive capacity, raises consciousness of the operating environment, offers organizational capacity to encounter threats and challenges [70], and concurrently moves the organization toward a promising future.

Clearly, individual resilience and organizational resilience are related. However, organization-level resilience is not simply a sum of individual-level resilience [139]. Indeed, the actions of individual organizational members and their interaction effects are important to forming organizational resilience [140], which is enabled by the shared sustainability vision and values. Thus, in our theory, the Resilience Development practice suggests

that organizations advocate the idea of self-managing and self-leading organizational members at different levels while maintaining overall organizational coherence via the shared sustainability vision and values. Fostering independent thought under suitable structured direction is critical [141], given that the present dynamic, non-linear nature of the world where organizational self-monitoring and self-regulating are required [92]. Our view is endorsed by Stewart and O'Donnell [142] who assert that localized leadership is a resilience success factor in times of crisis. In a crisis, knowledgeable organizational members self-organize into ad hoc networks to offer expert problem solving [143]. These networks are not permanent [144] as they dissolve after the crisis has been managed. The informal latent networks are in place only when organizations encounter a disturbance and quickly develop contingencies as an enhancement to the normal formal organizational structure with rigid roles [144]. Such networks may consequently provide integrated organizational knowledge necessary to deal effectively with unanticipated events [8], supported by the Knowledge Sharing practice to be discussed next. Self-compassion in each individual organizational member also facilitates effective emotion regulation [145], a positive coping strategy [146] and a crucial component of resilience [82].

When organizations encounter disequilibrium and chaos as businesses are multi-faceted, adaptive systems [147], the organizations emerge, manage, and adjust themselves to face issues. To ensure survival and prosperity, a balance of subsystems' autonomy and organizational cohesion is to be bolstered, integral to corporate sustainability [147]. Such a balance is enabled by the value and belief subsystem, or "soft control", and supportive organizational structure discussed earlier. Such a soft control is created only for inhibiting or redirecting ideas inconsistent with the sustainability vision and values or those possibly damaging sustainability prospect [54].

The Resilience Development practice includes preparing organizational members for constant adaptations and turns them into collaborative agents so that emergent problems and issues can be dealt with effectively by them. As adaptive agents in intricate systems, they behave as the medium for knowledge and information transmission, indicating that knowledge and information must be shared effectively throughout the organization. Their individual learning eventually leads to organizational learning by enhancing capacity to respond to internal and external challenges, thereby enhancing organizational adaptive capacity via continuous innovation.

5.6.3. Knowledge Sharing Practice

As discussed in the foregone subsection, our theory asserts that, in a crisis, knowledgeable organizational members self-organize into ad hoc networks to offer expert problem solving [143]. They become self-leading, self-managing, functioning within the networks that may consequently provide integrated organizational knowledge necessary to deal effectively with unanticipated events [8]. Thus, knowledge is core to this impromptu problem-solving process. A literature review by Vogus and Sutcliffe [148] suggests that resilient organizations appear to employ a superior brand of learning. More importantly, organizational resilience is theoretically linked to learning processes, given that organizational capacity to learn from mistakes and emerge stronger is part of the essence of organizational resilience [149]. However, a gap exists in the literature on the character of this learning and what specific resources give rise to it [148]. Our Knowledge Sharing practice [54] fills in this gap.

Clearly, to be resilient, self-monitoring, and self-regulating, organizational members must be highly competent. The Knowledge Sharing practice is influenced by the Resilience Mindset and shared sustainability vision and values as it emphasizes knowledge sharing internally among organizational members and externally with stakeholders including competitors.

Internal knowledge sharing allows organizational members to share their organization-specific experiences, wisdoms, and insights. Essentially, early experiences, wisdom, and insights shape later ones. These early experiences, wisdom, and insights shape organiza-

tional members' attitudes, expectations, feelings, and responses [12], allowing them to have well-informed interpretation and response to new challenges. As a source of experiences, wisdoms and insights, trial-and-error learning permits organizations to respond to new problems, avoid major crises and replace old routines [24], innovating even further.

As an interactive process requiring organization-specific experiences, knowledge and skills of organizational members, internal knowledge sharing assists organizational members in determining best practices, and encourages creativity and organizational learning [150,151]. To be able to adapt to unexpected circumstances [8], resilient organizations must be able to simultaneously believe in and question their past experience [32], often leading to more efficient operations and better services and products. Internal knowledge sharing allows them to do so, with a climate of open communication where organizational members feel confident in their ability to explore new alternatives, utilize what they know, and share information and observations in such a way that brings about quick and situation-specific responses when new conditions emerge [7].

Innovation also occurs via sharing of knowledge resources with a large variety of external stakeholders [152,153], including competitors via coopetition [54]. This relationship network incorporating a whole range of intellectual assets unavoidably leads to highly relevant value creation and delivery of the participating organizations in the sharing network [154]. In our theory, managing knowledge results in integrated cross-disciplinary knowledge [155]. The word "knowledge" means implicit knowledge kept in organizational members' heads. It is highly specific to the organization, highly unique, and very challenging to replicate or procure, given its experience base, context-specificity, and distinctive organizational procedures and routines. Thus, implicit knowledge, if effectively managed, brings about a timely adaptation to the changing environment.

Informed by the Dynamic Capabilities theorists [156–159], we postulate that an organization is required to constantly renew its knowhow and competencies as the environment constantly changes [160]. Essentially, what we mean is organizational resilience. Resilient organizations are always ready to encounter a large variety of anomalies and always strive to enhance their capabilities to do so. They indeed function under the assumption that they are imperfect and aim to be better over time through learning. New knowledge must be continuously generated via purposeful sharing of knowledge internally and externally between organizations, and with a large variety of other stakeholders [161]. Via the Knowledge Sharing practice, resilient organizations advocate competence, re-establish effectiveness, and foster growth through social processes of mindful organizing enacted by organizational members at all levels [143]. Given that the Resilience Mindset is a consequence of self-compassion characterized by, among others, mindfulness [87,88], mindful organizing allows organizational members to continuously develop, refine, and update a shared understanding of the situation they encounter, the problems concerning it, and what competences exist to ensure safe performance [148].

Thus, it is postulated that, through the Knowledge Sharing practice, organizational efficiency is enhanced, also enhancing organizational adaptive capacity as the sharing organizations function more intellectually in the market. Knowledge organizations improve communication and synergy among their knowledge members, facilitating the process of timely organizational adaptation. The Knowledge Sharing practice leads to improving corporate innovation and renewed knowhow and competencies, allowing the organization to adapt more effectively to the constantly changing business environment.

Since (a) resilience has been said to relate to change phenomena, ranging from surprises (e.g., ecological shocks), disruptive events (e.g., extreme weather events, terrorism), to more typical change (e.g., climate change, market change), and (b) we define organizational resilience as both organizational adaptability and organizational buffering capacity to respond effectively to abrupt environmental changes so that the organization bounces back and strengthens its current entity by dynamically reinventing itself for the future as the surrounding environment changes, an indicator whether the organization bounces back and becomes even stronger is its organizational ability to continue to deliver sustainability

performance despite difficulties. We review how sustainability performance is measured in the next section.

5.6.4. Sustainability Performance

Resilient organizations are different from non-resilient ones in times of adversity because they have the ability to realign their resources more quickly [162], to excel despite chaos [163], to meet current market demands amidst adversity [164], and sometimes to turn adverse conditions into organizational potential [6]. They do not exhibit regressive behavior and conquer inertia. With these abilities, resilient organizations can continue to deliver desirable sustainability performance.

In measuring sustainability performance, clearly economic success is not the one and only predictor of organizational, enduring determination [77,165]. Indeed, the sole focus on economic success has troubled the society and environment [166,167]. In essence, sustainable success refers to the successful fulfillment of a whole range of stakeholders' needs [168–170]. With no commonly agreed measurement of sustainable success [83,171–174], sustainability is typically measured by social, environmental, and economic outputs, the Triple Bottom Line, as they are postulated to lead to long-term, sustainable success [175–177]. Indeed, the Triple Bottom Line concept asserts that the balance of economic, social, and environmental prosperity [178,179] solves the prevailing sustainability problems, leading to sustainability for all.

The delivery of the sustainability performance in turn affects organizational members on how they view the sustainability vision and values. They continue with a systematic testing and questioning process [16]. With the sustainability performance that solves the prevailing sustainability problems concerning the society and environment, organizational members accept the sustainability vision and values. At the same time, they unlearn other beliefs and values they had earlier, a reverse process for continuously testing, reconfirming, and even unlearning a value. Essentially, the Triple Bottom Line results, as residues of success, further strengthen their commitment to the value and belief subsystem among organizational members [180,181], in turn strengthening the Resilience Mindset even further. This is called a feedback loop of learning. After several learning loops overtime, the sustainability vision and values become core to the organization, according to our theory of organizational resilience.

Therefore, we adopt the concept of Triple Bottom Line as a measurement for sustainability performance in the present theory development. We theorize that no matter how difficult a situation, as a result of abrupt changes introduced by the environment, which resilient organizations encounter, they can continue to deliver competitive Triple Bottom Line outputs.

6. Integrated Theory of Organizational Resilience

As the outcome of the theoretical integration above, our theory of organizational resilience postulates that organizational resilience is originated not only from the dynamic capacity organizational members possess to absorb shocks and tensions, but also from their ability to emerge even stronger than before from calamity by continuously learning and growing. In this section, we discuss the theoretical elements, processes, and their interaction by which such organizational resilience is achieved.

Based on the General Systems Theory [14], the elements of the organizational resilience theory and their relationships can be identified and integrated into a coherent theory of organizational resilience and its associated model as shown in Figure 1.

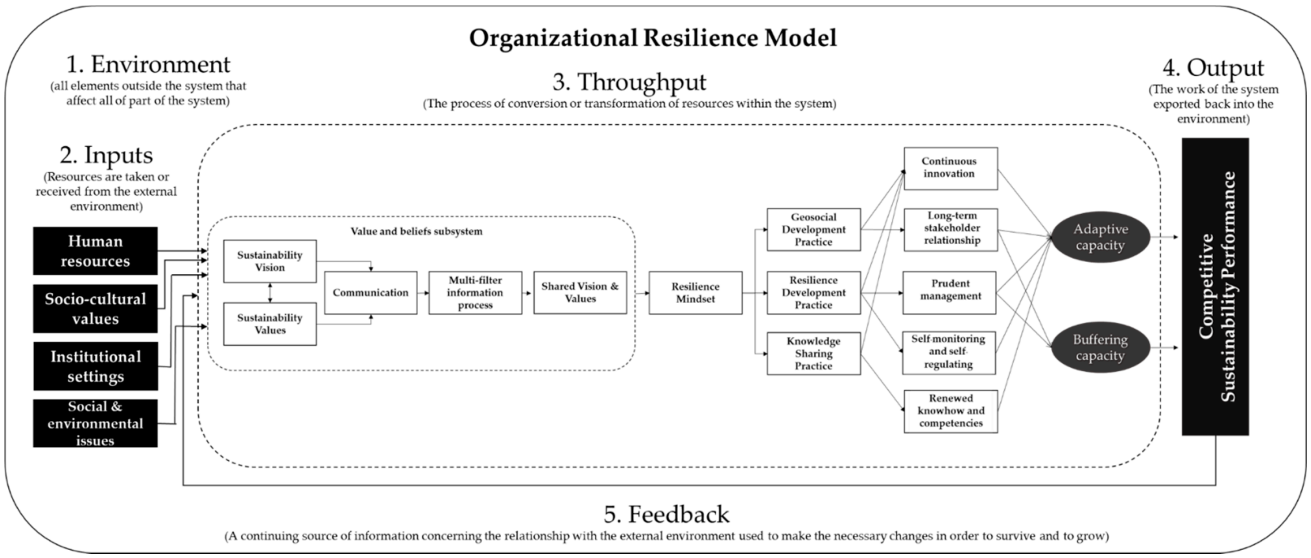

Figure 1. Organizational Resilience system.

Our proposed theory predicts that these organizational components interact dynamically to ensure organizational resilience via organizational adaptive and buffering capacities to bring about overall organizational ability to continue to deliver competitive sustainability performance as measured by social, environmental, and economic outputs.

We theorize that the external environment is constantly changing and increasingly becoming multifaceted. It is this environmental change that triggers the Organizational Resilience system. Our Organizational Resilience system starts with the four inputs of human resources, socio-cultural values, institutional settings, and social and environmental issues into the throughput process. Human resources are individuals with a mindset, which is a non-empty set of cultural values or beliefs that are central to individual identity. They make up the members of an organization. Socio-cultural values are social and economic forces influencing the organizational resilience system. Institutional settings such as institutional policies influence the organizational resilience system. Finally, social and environmental issues are the last input into the organizational resilience system as they prevail in the workplace today. They influence business organizations and require them to respond effectively.

These organizational members first go through a value and belief subsystem. This subsystem starts with sustainability vision and values and their communication. The sustainability vision is characterized by brevity, clarity, abstractness, challenge, stability, future orientation, and desirability or ability to inspire to facilitate the vision sharing process in the organization [86]. More importantly, we assert that the sustainability vision must contain content related to stakeholder satisfaction imagery [86] since stakeholder satisfaction imagery is related to self-compassion, suggesting that each organizational member embraces an inner dialogue about stakeholders in a way that one would have for a family member, shares a feeling of struggling, suffering, and failure that unifies the human experience, and develops the present mindfulness needed to recognize suffering moments among stakeholders [89]. We additionally theorize that stakeholder satisfaction imagery leads to improving organizational resilience via self-compassion. Without stakeholder satisfaction imagery in the vision, organizational resilience is not possible.

In addition to the sustainability vision, we theorize that organizational resilience requires sustainability values to facilitate decision making process in the entire organization, particularly in times of abrupt change. We postulate that these values are about virtues (e.g., perseverance, moderation, and generosity), social and environmental responsibility, and innovation [54]. Sustainability values must be espoused by organizational members along with the vision. Without the vision, the values cannot be brought to life to become

living core values [96]. On the other hand, the sustainability vision brings the sustainability values to life since they offer meaning to the sustainability vision.

In our value and belief subsystem, we theorize that organizational members communicate the sustainability vision and values so that they are widely shared. In the communication process, organizational members who receive the sustainability vision and values messages go through a process called multi-filter information [16]. Within the multi-filter information process, they synthesize and incorporate information and values that are compatible with their existing values. They measure the difference between the emerging and existing values to assess the cost and benefit of accepting, rejecting the emerging values, or even replacing existing values with the new ones. In such a process, our theory asserts that the sustainability vision and values become shared sustainability vision and values, fundamental to the sustainability organizational culture. Moreover, our theory also asserts that, after several learning loops over time, these shared values become core values. As a result, this value and belief subsystem's output is shared sustainability vision and values among organizational members, the first prerequisite for organizational resilience. Without the shared sustainability vision and values, we posit that organizational resilience is not possible.

Once organizational members share the sustainability vision and values, they develop a specific mindset called Resilience. The Resilience Mindset is characterized by perseverance and moderation. They are moderate in a sense that they do not focus on maximizing short-term profitability and are willing to invest now for a wide range of stakeholders and long-term benefits. At the same time, they persevere without giving up easily, despite great difficulties they encounter. Essentially, organizational members who share this mindset perform the day-to-day corporate sustainability practices called Geosocial Development, Resilience Development, and Knowledge Sharing to attain the shared sustainability vision. Clearly, this shared mindset and its associated practices lead to organizational resilience.

The Geosocial Development practice focuses on identifying and providing values of the business to a large variety of stakeholders [54], frequently leading to continuing social and environmental innovation [127,128]. The social and environmental innovation helps to enhance organizational adaptive capacity as the environment keeps changing constantly. Such a stakeholder-focus practice brings about greater growth rates, less financial volatility, and improved survival rates in the long run [24], leading to improving organizational buffering capacity. Additionally, a long-term, stakeholder relationship is developed, becoming a buffer or immunity when the business unexpectedly encounters a difficulty [182,183].

The Resilience Development practice focuses on anticipating and preparing for change, resulting in prudent management. It also advocates self-governing organizational members at different levels while retaining an overall organizational coherence, allowing for continuous innovation throughout the entire organization. The Resilience Development practice involves identifying organizational susceptibilities and various capabilities and order them while formulating strategies [69]. Doing so really improves the organizational consciousness of operating environment and offers organizational capacity to encounter threats and challenges [69], concurrently moving toward a better future. This process thus improves both organizational adaptive and buffering capacities.

Our theory postulates that for the self-monitoring, self-managing organizational members to function effectively, they must be well-informed and have necessary knowledge. To enable the self-leading, self-managing workforce, the Knowledge Sharing practice focuses on knowledge sharing among organizational members and with stakeholders, including competitors via coopetition [54]. Clearly, such a sharing practice leads to continuous innovation. In addition, knowledge sharing helps to renew the organization's knowhow and competencies, responding to the increasingly abrupt changes introduced by the environment. The resulting continuous innovation and renewed knowhow and competencies improve organizational adaptive capacity. It is the Knowledge Sharing practice that primar-

ily allows the organization to bounce back and strengthen its current entity by dynamically reinventing itself for the future.

Once the organizational adaptive and buffering capacities are enabled, the organization can continue to deliver competitive sustainability performance, even when it is hit by an external shock. Such a success functions as an input into the Organizational Resilience system to validate and strengthen the value and belief subsystem, Resilience Mindset, and Corporate Sustainability practices as the correct way to respond to the constantly changing environment. In doing so, the organizational resilience system reaches a new equilibrium. According to the General Systems Theory [15], this is called a feedback loop.

Finally, we theorize that the Organizational Resilience system relies upon a supportive organizational structure [79,80] as it acts as a reasonable control for the self-monitoring, and self-regulating organizational members.

Even though propositions are not obligatory for all bona fide theories [31], researchable propositions are useful to improve the chance that subsequent investigators will constitute valid examinations of core theoretical arguments. In such a process, the focal theory is refined. Thus, based on the model, the following theoretical propositions are advanced for future theoretical refinement.

P1: Sustainability visions characterized by brevity, clarity, abstractness, challenge, future orientation, stability, and desirability or ability to inspire and containing imageries about satisfying stakeholders facilitate the formation of shared vision among organizational members via communication.

P2: Sustainability values of virtues, social and environmental responsibility, and innovation facilitate decision making among organizational members in espousing the shared sustainability vision.

P3: Shared sustainability vision and values among organizational members foster the Resilience Mindset among them.

P4: Resilience Mindset characterized by moderation and perseverance influences organizational members to perform the Geosocial Development, Resilience Development, and Knowledge Sharing practices.

P5: The Geosocial Development practice develops long-term stakeholder relationships and continues organizational innovation.

P6: The Resilience Development practice allows for prudent management, continues organizational innovation, and promotes self-monitoring, self-regulating organizational members.

P7: The Knowledge Sharing practice continues organizational innovation and renews organizational knowhow and competencies.

P8: Continuous innovation improves organizational adaptive capacity.

P9: Long-term stakeholder relationships improve organizational adaptive and buffering capacities.

P10: Prudent management improves organizational adaptive and buffering capacities.

P11: Self-monitoring, self-regulating organizational members improve organizational adaptive capacity.

P12: Renewed knowhow and competencies improve organizational adaptive capacity.

P13: Organizational adaptive capacity allows the organization to continuously deliver competitive sustainability performance even in a time of crisis.

P14: Organizational buffering capacity allows the organization to continuously deliver competitive sustainability performance even in a time of crisis.

6.1. Managerial Implications

Since a good theory is a practical theory [184], our theory of organizational resilience offers some important managerial implications for management professionals as summarized in Figure 2 below.

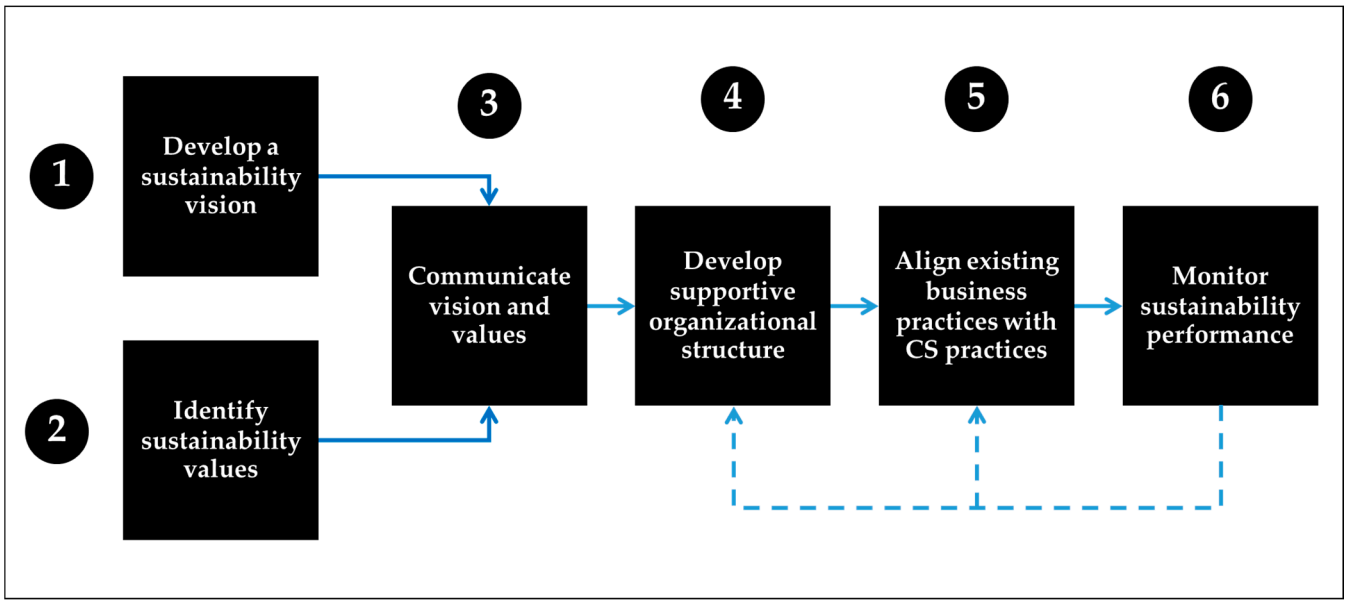

Figure 2. Organizational resilience development guidelines.

To enable an organization to have organizational resilience with both adaptive and buffering capacities, corporate leaders should ensure that their organizational visions are stakeholder focused. Their vision statements must also meet the characteristics of sustainability vision so that, among others, the visions can be shared organizationally and facilitate common goals toward sustainability. In particular, they have to ensure that their vision statements are abstract enough to support the organization-wide interpretation among the self-monitoring, self-regulating organizational members, fundamental to enabling organizational resilience.

In addition, corporate leaders need to ensure that they identify and communicate the sustainability values, among other values, so that organizational members have some guidelines in making decisions in their daily work as they function with a high degree of autonomy. Sharing the sustainability values, they will have the Resilience Mindset supportive to ensuring continuous innovation and business continuity.

Next, corporate leaders need to assess whether their current organizational structure facilitates self-monitoring and self-regulating organizational members. The organizational structure should be flexible, adaptable, and stakeholder focused. More often than not, they will have to redesign their organizational structure to align it with the sustainability vision. After redesigning their organizational structure, corporate leaders may evaluate their existing business practices whether they are consistent to the Geosocial Development, Resilience Development, and Knowledge Sharing practices. The evaluation results will allow them to adjust their existing practices toward the three corporate sustainability practices to ensure that their business operations lead to continuous innovation, long-term stakeholder relationship, prudent management, self-monitoring and self-regulating workforce, and renewed knowhow and competencies, the five organizational qualities enabling effective adaptive and buffering capacities.

Finally, corporate leaders should measure their corporate sustainability performance in the environmental, social, and economic domains so they have some indicators whether their organizations are timely responsive to the stakeholders' demands. Sometimes, they need to improve their organizational structure and practices to allow their organizations to be more responsive. In addition, a recommended time to test organizational resilience is when there is an abrupt change in the environment. Corporate leaders can compare their sustainability performance with that of competitors to see if it remains competitive even in a tough time.

At the policy level, not all businesses will manage to survive the major and abrupt economic and social crises [185]; relevant government agencies can therefore promote the organizational resilience development guidelines above among businesses, particularly SMEs, so that they can adopt the guidelines to ensure their organizational resilience. This includes for example a sustainability management plan development [90] that includes measures in the social, environmental, and economic domains. Such a balance among the three domains will bring about long-term, sustainable competitive advantage of their businesses.

6.2. Future Theoretical Development

Our proposed theory of organizational resilience is only another 'interim struggle'. A strong conceptualization should continue in future research with newer empirical evidence and emerging theories/models and concepts. To ensure the theory's robustness, future research may validate it to spot probable anomalies and warrant its pragmatism by exploring the propositions in an actual organizational setting. Besides the continued conceptualization of the theory, a detection of an anomaly permits theorists to progress a body of theory since comprehension of the anomaly assists in discovering a new categorization scheme or a new relationship earlier overlooked by the theorists [186]. Anomaly or anomalies support theorists to get a more holistic view and comprehend the focal phenomenon of interest. Future research can then refine the proposed theory of organizational resilience and its supportive model, enhancing the robustness of the theory. Accordingly, the theoretical refinement process should continue with more samples in a wide variety of industrial, organizational, and cultural contexts to improve the theory's external validity.

Since the concept of resilience is acknowledged both explicitly and implicitly in a range of Sustainable Development Goals (SDGs) [187], future research can adopt the Sustainable Development Goals as the measures for sustainability performance in their continuing efforts to refine the Organizational Resilience theory.

Finally, another critical aspect for future theoretical refinement of the Organizational Resilience model is inter-organization collaboration. Since organizations with such collaboration can enhance their resilience capacity by securing access to critical resources and information [188], future research can include the inter-organization collaboration as part of the Organizational Resilience model. In particular, entrepreneurial firms adopting such a collaboration can be an interesting sample for testing organizational resilience since they are affected by institutional, economic, and socio-economic determinants [185].

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