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ORIGINAL PAPER

Managing Corporate Sustainability with a Paradoxical Lens: Lessons from Strategic Agility

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Abstract Corporate sustainability introduces multiple tensions or paradoxes into organisations which defy traditional approaches such as trading-off contrasting options. We examine an alternative approach: to manage corporate sustainability with a paradoxical lens where contradictory elements are managed concurrently. Drawing on paradox theory, we focus on two specific pathways: to the organisation-wide acceptance of paradox and to paradoxical resolution. Introducing the concept of strategic agility, we argue that strategically agile organisations are better placed to navigate these paradox pathways. Strategic agility comprises three organisational meta-capabilities: strategic sensitivity, collective commitment, and resource fluidity. We propose that strategically agile organisations draw on strategic sensitivity and collective commitment to achieve organisation-wide acceptance of paradox, and collective commitment and resource fluidity to achieve paradoxical resolution. For each of these meta-capabilities, we identify three organisational practices and processes specifically related to corporate sustainability that organisations can leverage in pursuit of strategic agility. We offer a conceptual framework depicting the strategic agility meta-capabilities, and associated practices and processes, which organisations draw on to successfully manage corporate sustainability with a paradoxical lens.

Keywords Corporate sustainability · Paradox · Paradoxical lens · Strategic agility · Strategic agility meta-capabilities · Tensions

Introduction

As organisations increasingly integrate corporate sustainability into mainstream strategic considerations, they surface contradictory yet interrelated tensions, which coexist and persist over time (Hahn et al. 2015, 2016; Smith 2014). Labelled "paradoxes" these tensions defy traditional resolution such as trade-off (Van der Byl and Slawinski 2015) and instead require more complex organisational approaches. Despite the increasing interest in this notion (Gao and Bansal 2013; Hahn et al. 2016), there is a lack of research examining organisational capabilities which contribute to successful management of such paradoxes. While Smith and Lewis' (2011) dynamic equilibrium model of organising remains a central contribution to paradox theory, key elements of the model require greater theoretical explication. For example, although these authors present a pathway for paradox to achieve organisation-wide acceptance followed by a pathway where such acceptance culminates in paradoxical resolution, theorisation of organisational capabilities that contribute to such pathways is limited. This forms the central focus of our paper, in which we ask:

- What organisational capabilities contribute to managing corporate sustainability with a paradoxical lens?
- What practices and processes can be leveraged to attain such capabilities?

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Introducing the concept of strategic agility (Doz and Kosonen 2010), we propose that strategically agile organisations are well placed to navigate these paradox pathways, and so to manage corporate sustainability with a paradoxical lens. Strategic agility is the ability of an organisation to continuously adjust strategic direction and develop innovative ways to create value (Weber and Tarba 2014), and comprises three organisational meta-capabilities: strategic sensitivity, collective commitment, and resource fluidity (Doz and Kosonen 2010). We propose that strategically agile organisations draw on all of these meta-capabilities to navigate the pathway to organisation-wide acceptance of paradox and to paradoxical resolution. In addressing our second question, for each of these meta-capabilities we propose three organisational practices and processes specifically related to corporate sustainability that can be leveraged in pursuit of strategic agility.

This paper makes three specific contributions. First, we contribute to paradox theory by responding to Smith and Lewis's (2011) own calls for further theoretically driven examination of how paradoxical tensions are managed, proposing strategic agility as contributing to two of the core pathways in their model. Second, we contribute to the corporate sustainability literature by heeding calls to develop new approaches to its successful practice in the light of the complexity of the concept and the empirical reality of business (Dyllick and Hockerts 2002; Hahn et al. 2010; Margolis and Walsh 2003). We do so by articulating corporate sustainability as requiring management through a paradoxical lens, by introducing strategic agility as a capability to achieve this, and by identifying organisational practices and processes which can be leveraged to this end. Finally, we contribute to the strategic agility literature by building a deeper understanding of the enactment of each meta-capability when applied to a specific organisational issue—in this case, corporate sustainability. Indeed, the overall contribution of our paper can be articulated as demonstrating the nexus between three distinct concepts—paradox, corporate sustainability, and strategic agility—as depicted visually in Fig. 1. We offer a conceptual framework theorising strategic agility as a conduit to successfully managing corporate sustainability with a paradoxical lens.

The paper's structure mirrors the Venn diagram presented in Fig. 1. First, we present each theoretical concept individually: starting with paradox, then corporate sustainability, and finally strategic agility. In particular, in relation to corporate sustainability we explore its complexity through three specific dimensions, and in relation to strategic agility we outline its three meta-capabilities from existing theory. Working inwards on Fig. 1, we then examine the overlap of each pair of concepts: first paradox and corporate sustainability, then corporate sustainability and strategic agility, and finally paradox and strategic agility. Embracing the elements and complexities of each concept already identified, and drawing on explicit and implicit depictions in existing literature, we demonstrate the theoretical overlaps of each pair of concepts. We conclude the first half of the paper by presenting an enhanced version of Fig. 1 comprising explanation and evidence.

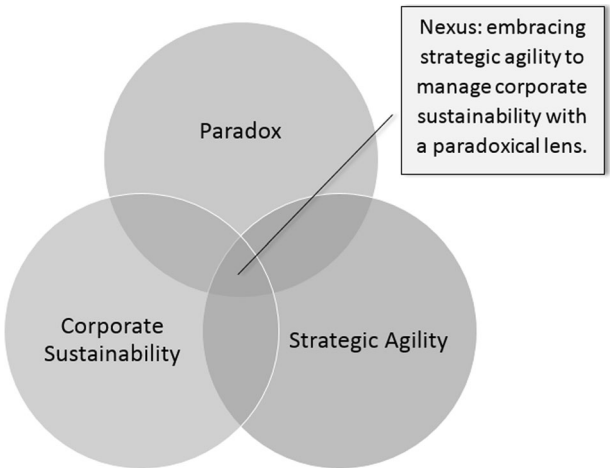

Fig. 1 Nexus of paradox, corporate sustainability, and strategic agility

The second half of our paper drills down on the centre of the diagram—the nexus between all three concepts—and we begin our task of constructing a conceptual framework. We first locate the strategic agility meta-capabilities on the two pathways from existing paradox theory which form the focus of this paper: the pathway to acceptance of paradox and the pathway to paradoxical resolution. Applying this to corporate sustainability, we identify organisational practices and processes contributing to each strategic agility meta-capability which organisations can draw on to manage corporate sustainability with a paradoxical lens. We then present our conceptual framework, which embraces all of these elements. Finally, we close the paper by reiterating our contributions and outlining the natural avenues for future research.

Theoretical Concepts

Paradox

The language of "paradox" has increasingly entered the lexicon of management over the last 30 years in response to hyper-competitive (D'Aveni 1995), turbulent and complex organisational environments (Jarzabkowski and Sillince 2007; Smith et al. 2010) requiring organisations to resolve the seemingly unresolvable. It is argued that long-term organisational performance is dependent on engaging alternative strategic demands simultaneously on an ongoing basis (Smith 2014). That is, organisations are progressively more dependent on managing paradox.

The concept of paradox in the literature has moved beyond depictions of a "thing" causing turbulence and inaction and is now articulated as a "lens" through which to view the organisation (Lewis et al. 2014) and which contributes to a process of action described as "working through" paradox (Luscher and Lewis 2008). This better reflects the empirical reality whereby organisations do not just face one simple duality, but complex pluralistic tensions (Jarzabkowski and Sillince 2007).

Distinct from other approaches to addressing tensions (e.g. trade-off), paradox acknowledges and benefits from the coexistence of contradictory elements (Van der Byl and Slawinski 2015). That is, the contradiction, rather than being, for example, "traded-off", remains central to the approach and therefore central to the response (Smith and Lewis 2011). This requires organisation-wide acceptance of paradox whereby inconsistencies, conflict, and ambiguity are accepted as natural working conditions (Poole and Van de Ven 1989), and the polarisation of information and temptation for internal consistency are eschewed (Van der Byl and Slawinski 2015). Furthermore, it requires paradoxical resolution which seeks "both/and" alternatives fostering novelty and creativity (Lewis et al. 2014) and embracing the uncomfortable and potentially uncertain juxtaposition of opposites (Van der Byl and Slawinski 2015). There is evidence of organisations increasingly requiring such characteristics in job candidates. Johnson and Johnson regularly require competencies such as "sound decision-making skills in own job, and during more ambiguous or uncertain situations" (JnJ 2016), while Microsoft identify "Dealing with Ambiguity" as one of their key Education Competencies: "can effectively cope with change; can shift gears comfortably; can decide and act without having the total picture; can comfortably handle risk and uncertainty" (Microsoft 2016). Acceptance of paradox and paradoxical resolution form the two core pathways on Smith and Lewis's (2011) dynamic equilibrium model of organising. The successful navigation of these two pathways enables management with a paradoxical lens, allowing the organisation to achieve "short-term excellence while ensuring that such performance fuels adaptation and growth enabling long-term success" (Smith and Lewis 2011, p. 393).

Corporate Sustainability

When defining corporate sustainability, many papers allude to simplified depictions of some composite of economic, environmental, and social organisational outcomes (Dyllick and Hockerts 2002; Hahn and Figge 2011). However, by unearthing its complexities, the paradoxes raised by corporate sustainability come into focus, and strategic agility reveals itself as a useful theoretical bridge between corporate sustainability and paradox. As such, we now briefly examine these complexities by identifying three dimensions of corporate sustainability which are instrumental in surfacing paradoxes: open-system approach, input focus, and prospective orientation.

While corporate sustainability as an idea has existed for as long as business itself, the current construct has provenance in the concept of sustainable development (Banerjee 2003; Hahn and Figge 2011) defined in a UN development report as meeting the needs and aspirations of the present without compromising the ability to meet those needs of the future (see UNWCED 1987 for a fuller exploration). This concept espouses an open-system perspective (Gallopin 2003), characterised by multi-directional and unconstrained interactions with an entire environment through processes that exchange material, energy, people, capital, and information (Negandhi and Reimann 1973). However, in attempts to translate from this global-level normative concept, to an organisational-level business concept, corporate sustainability risks being narrowed (Aras and Crowther 2008; Hahn and Figge 2011; Banerjee 2003; Gladwin et al. 1995; Bansal 2005). At its most extreme, this reduction in corporate sustainability sees it simply leveraging the wider social and ecological system in order to lower production costs, establish new markets, or enhance brand equity (Porter and van der Linde 1995). Such an approach is reflective of a closed system (Negandhi and Reimann 1973), which fails to acknowledge the parallel impacts *on* broader economic, social, and environmental systems in pursuit of these aims. An open-system approach to corporate sustainability embraces the multi-directional relationships between the organisation and the wider direct and indirect social, environmental, and economic systems and demands that "if organizations are to be truly sustainable, corporate leaders must learn to operate within that complexity" (Benn et al. 2014, p. 293). Such an approach sees the organisation as embedded in a broader theory about how the ecological system and the social system relate (Jennings and Zandbergen 1995) and supports the nexus between corporate sustainability and paradox which pervade such complex systems (Smith and Lewis 2011).

Corporate sustainability also comprises a proactive focus on inputs which can be managed and influenced, rather than a post hoc analysis of outputs. This view supports the momentum shift (Norman and MacDonald 2004; Macdonald and Norman 2007) away from approaches such as the triple bottom line (TBL). The TBL has its foundations in output-based accounting which purports to calculate the economic, social, and environmental bottom lines of an organisation (Elkington 1997) but which has since been described by the same author as comprising "limitations inherent in the over-simplified delineation of

economy, society and environment, which the TBL approach implies" (Elkington et al. 2006, p. 14). Moreover, others question the ability to accurately measure in any quantitative—or even meaningfully qualitative—sense the outputs of sustainability (see Searcy 2012 for a more in-depth exploration). Furthermore, while measuring outputs may provide useful information about past programmes, *focusing* on outputs, especially in dynamic and turbulent environments (Jarzabkowski and Sillince 2007), limits an organisation's ability to appropriately allocate the assets, capabilities, and competencies, which form the foundation of their future actions and outcomes.[1] An input approach embraces and prioritises attention to both intangible inputs such as management actions, leadership, decision-making processes, and informal organisational structures, as well as tangible inputs such as raw materials, buildings, and equipment. An example of an input-based approach to corporate sustainability is the circular economy approach (see Murray et al. 2017 for an examination of this concept) which takes as a premise that the outputs of one process or organisation are better understood as potential inputs to another process or organisation. Moreover, a focus on inputs is essential when developing ongoing responses rather than one-time resolutions (Lewis 2000; Smith 2014): a central tenet of a paradoxical approach.

Corporate sustainability also adopts a prospective approach. Indeed, the word "sustainability" itself focuses on the ability to prolong or maintain into the future, and corporate sustainability has been articulated as the ability to "thrive to perpetuity" (Werbach 2009). Traditionally, there has been a retrospective approach to corporate sustainability, evaluating an organisation's sustainability based on past results or market positioning (Elkington 2004). This neglects the possibility that, particularly in a changing and turbulent context, the past may not accurately reflect ongoing or future reality. A firm with a strong economic bottom line may not necessarily be able to sustain this "if their business models or technologies are not sustainable in the long haul" (Elkington 2004, p. 15). From an environmental sustainability perspective, a retrospective approach makes even less sense as it is availability of resources and environmental impacts going forward that are key. For example, assessments of projected water sustainability should not be based on the availability of water *to date*, but whether, given complex and continually changing climate, geopolitical, and technological developments (Dyllick and Hockerts 2002), it will remain available into the future. Moreover, we again point out that retrospective approaches reflect the resolution or trade-off of past tensions, which have potentially ignored or sidelined contradictory elements: a prospective orientation allows for such contradictions to be held simultaneously. Having identified both paradox and corporate sustainability, we now move on to the theoretical construct central to our contribution: strategic agility.

[1] It is worth noting that our argument should not be taken as a rejection of the valuable work linking aggregated organisational outputs to the degradation of planetary ecosystems (see, for example, Whiteman and Cooper 2011; Whiteman et al. 2013). Indeed, our paper incorporates such issues by emphasising an open-system approach. However, here we focus on the management of corporate sustainability with a paradoxical lens. An output-based understanding of corporate sustainability would be unhelpful given such outputs are likely to have already ignored, traded-off, or resolved the very paradoxes central to our focus.

Strategic Agility

Strategic agility constitutes the ability of firms to make strong strategic commitments while at the same time remaining sufficiently fleet of foot to manage and adjust to continuous change (Doz and Kosonen 2008a) caused by growing strategic discontinuities and disruptions. It comprises processes, actions, structures, culture, attributes, skills, and relationships designed to ensure the organisation remains flexible when facing new developments (Weber and Tarba 2014). McCann's (2004) early definition of strategic agility as the ability to "quickly recognise and seize opportunities, change direction and avoid collisions" (p. 47) formed the foundation for more sophisticated approaches encapsulated in a recent *California Management Review* special issue dedicated to the topic:

> Strategic agility [is] the ability of management to constantly and rapidly sense and respond to a changing environment by intentionally making strategic moves and consequently adapting the necessary organisational configuration for successful implementation (Weber and Tarba 2014, p. 7)

Although it has been part of the strategy discourse for around 20 years (Weber and Tarba 2014), strategic agility came to prominence following criticism that concepts such as strategic planning (Ansoff 1965), the resource-based view (RBV) (Wernerfelt 1984), and sustainable competitive advantage (Hoffman 2000) were too vague, tautological, or linear given the rate and complexity of change (Mintzberg 1994; Weber and Tarba 2014). Moreover, in response to further critiques that some of these earlier concepts lacked utility to managers (see, for example, Kraaijenbrink et al.'s 2010 critique of the RBV), strategic agility scholars delineated clear criteria to structure thinking and implementation, by introducing three meta-capabilities—strategic sensitivity, collective commitment, and resource fluidity—which must be achieved simultaneously for an organisation to be considered strategically agile (Doz and Kosonen 2008a, 2008b; Lewis et al. 2014). We briefly examine each of these meta-capabilities in turn.

While ostensibly the meta-capability of strategic sensitivity is about gathering and integrating knowledge to fuel continuous strategy development and innovation (Junni et al. 2015; Wilson and Doz 2011) at its core, it is about organisational sense-making. Doz and Kosonen (2008a) depict strategically sensitive organisations as those with a "sharpness of perception and intensity of awareness and attention … [to] … incipient trends and converging forces *with* intense real-time sense-making" (p. 96, italics added). As such, it is not just about having knowledge, but being able to make judgements with that knowledge. This is achieved through deep involvement in the ecosystem and preferential relationships with providers of such knowledge (Brueller et al. 2014). However, more than this, organisations attempting to achieve strategic sensitivity must both "learn from and let go of experience, look forward and backward, and engage ideas from the top down and bottom up" (Lewis et al. 2014, p. 60).

The second meta-capability, collective commitment, was originally labelled "leadership unity" by Doz and Kosonen (2010) with a focus on the top-down role of leaders heavily influencing, among other things, decisions, strategy, and culture. However, others have since argued that this term ignores the distributed role of leadership (Junni et al. 2015; Lewis et al. 2014). Junni et al. (2015) coined the new label from Doz and Kosonen's original work which made reference to the fact that leadership unity is only one determinant of a "top team's ability to reach collective commitments" (Doz and Kosonen 2010, p. 381). Accordingly, collective commitment is the existence of "common ground, common interest, empathy and trust in order to increase the engagement of organizational members" (Junni et al. 2015, p. 602). Collective commitment ensures that organisations can respond to arising opportunities without being hindered by internal disagreements, win–lose politics, and conflict (Doz and Kosonen 2010; Junni et al. 2015). Organisations who have developed collective commitment face minimal organisational resistance (Brueller et al. 2014) as decisions are not delayed by "personal insecurities and political stalemates … nor is their implementation subject to personal agendas and private disagreements that would slow down or scuttle the effort" (Doz and Kosonen 2008a, p. 96).

Finally, resource fluidity involves the swift mobilisation and deployment of resources and reconfiguration of business systems (Doz and Kosonen 2008a) in order to capitalise on opportunities (Brueller et al. 2014). It is an organisational and coordinative capability (Junni et al. 2015) comprising "processes for operations and resource allocation, people management approaches, as well as mechanisms and incentives for collaboration" (Doz and Kosonen 2011, p. 154). While we focus on resource fluidity as an ongoing capability, the importance of these elements has been acknowledged in work relating to one-off mobilisation of resources following disaster recovery (Olcott and Oliver 2014). Resource fluidity raises stability-change tensions because "fluidity requires change, switching, and novelty, but depends on consistency to take full advantage of resources" (Lewis et al. 2014, p. 61).

Having briefly outlined the three concepts central to this paper—paradox, corporate sustainability, and strategic agility (with its associated meta-capabilities)—the next section makes explicit the overlaps between each pair of concepts, culminating in a discussion of the nexus between all three.

Theoretical Integration

Paradox and Corporate Sustainability

References to paradox and corporate sustainability in the existing literature normally relate to the tension between economic priorities and social or environmental priorities (see, for example, Smith and Lewis 2011; Epstein et al. 2015). However, many argue that such tensions, far from being held or resolved paradoxically, have been managed in such a way as to allow business case arguments to colonise the discourse "where, a priori, the economic dimension is prioritised over the other two dimensions" (Hahn et al. 2015, p. 297). This has resulted in "the over-simplification of the relationship among these variables and the under-theorising of the nature of business sustainability" (Gao and Bansal 2013, p. 243) given that conflicts between the three dimensions of corporate sustainability "represent the rule rather than the exception" (Hahn et al. 2010, p. 218). Gao and Bansal (2013) propose an approach to corporate sustainability which "recognises and embraces the contradictions among the financial, social and environmental dimensions of the business" (p. 244). That is, such an approach recognises the paradoxes inherent in corporate sustainability.

However, it is important to extend our thinking beyond the obvious, to consider less visible paradoxes related to corporate sustainability. These include paradoxes that arise within or between social and environmental dimensions, as well as those related to the overall management of corporate sustainability. In relation to the former paradoxes, Checker (2011) juxtaposes urban environmental improvement and regeneration with subsequent negative social impacts associated with gentrification, while a number of authors have documented the paradox of Wal-Mart's extensive environmental sustainability drive which exists alongside its business model based on increased use of raw materials driven by consumption (Cascio 2006; Pfeffer 2010; Simola 2012). In relation to the latter paradoxes,

many authors have raised paradoxes of organisational design linked to corporate sustainability such as flexibility versus control, or centralised versus decentralised design (Smith and Lewis 2011; Lewis 2000; Luscher and Lewis 2008). For example, a centralised corporate sustainability function may contribute to strong policy and consistent monitoring, but subsidiaries are likely to have different sustainability challenges and social norms, which may be difficult to address through a central policy [see, for example, Shah and Arjoon's (2015) discussion of corporate sustainability in multinational subsidiaries in the oil and gas sector].

As such, corporate sustainability does not simply surface one discrete paradox to be addressed, but cascades multiple paradoxes throughout the organisation (Smith and Tushman 2005). Drawing on Lewis et al.'s (2014) terminology, organisations must manage corporate sustainability with a paradoxical lens. While support for such a conclusion can be found at the individual level of analysis where Hahn et al. (2014) juxtapose managers with a "business case frame" versus those with a "paradoxical frame", such conceptualisations at the organisational level are lacking.

Corporate Sustainability and Strategic Agility

Corporate sustainability is an inherently strategic notion—especially when understood in the complex manner presented in this paper—which is concerned with the purpose and positioning of the organisation over the long term and in relation to its context. It has been described as complex and multifaceted (Hahn et al. 2014) and requiring a holistic approach. Strategy has historically been concerned with a long-term view, taking a holistic approach to the organisation (see, for example, Selznick 1957; Ansoff 1965) dealing with the complexity of its internal and external environments. It is for this reason that traditional "planned" approaches to strategy have been widely critiqued (Mintzberg 1994) and emergent approaches, such as strategic agility, have gained traction. Strategy scholars have drawn on depictions of organisations as existing within a complex ecosystem (see, for example, Pascale et al. 2000) to which they are intimately connected, rather than being conceived of as a separate entity with boundaries. There are parallels here with corporate sustainability as an open-system approach, which similarly embraces a complex ecosystem. Neugebauer et al. (2016) argued that while planned strategies are appropriate for comparatively straightforward and controllable contexts, sustainability does not fit this mould due to its complexity and so requires more emergent strategy making.

More specifically, at the level of strategic agility's meta-capabilities the links with corporate sustainability become more apparent. The meta-capability of strategic sensitivity has links with both the prospective orientation and the open-system approach to corporate sustainability, given they all draw on the complexity of the organisation's entire context and the ability to look to the future. Collective commitment has links to an input-focus approach to corporate sustainability, especially as regards intangible inputs such as management actions and decision-making processes. Finally, resource fluidity also links to this input focus, given the need to understand and manage resources and assets, as well as to an open-system approach, given the need to be aware of all possible impacts on, and secure flexible access to, external resources through the supply chain.

Paradox and Strategic Agility

While explicit links between paradox and strategic agility are limited, implicit connections between these concepts abound. Given that the word "strategic" is associated with stable commitments to a future vision (Lewis et al. 2014; Doz and Kosonen 2008b), and "agility" involves being adaptable and nimble (Doz and Kosonen 2008b; Lengnick-Hall and Beck 2009), taken together "strategic agility" itself embraces paradox, evoking "contradictions, such as stability-flexibility, commitment-change, and established routines-novel approaches" (Lewis et al. 2014, p. 58). That is, "agility and strategic commitments remain inescapably contradictory" (Doz and Kosonen 2008a, p. 115). True to these "paradoxical roots" (Lewis et al. 2014, p. 60), strategic agility itself entails "contradictory efforts and trade-offs between the use of resources for both routine processes and new business models" (Weber and Tarba 2014, p. 8). Moreover, the strategic agility meta-capabilities are offered as ongoing, fundamental approaches to managing and organising, which strive for "continuous, systematic variations in an organization's products, processes, services and structures" (Weber and Tarba 2014, p. 6) eschewing activities targeting one-off solutions. This speaks directly to the paradox field, which approaches change in a similar way. Moreover, further implicit support for the link between paradox and strategic agility can be found in existing literature where Luscher and Lewis (2008) assert that the meta-capability of collective commitment makes organisations more effective because "managers at different levels share similar paradoxical understandings" (p. 238).

The limited literature which explicitly links strategic agility and paradox focuses on how a paradoxical approach can enable strategic agility (Lewis et al. 2014). Specifically, it focuses on the impact of paradoxical leadership practices on strategic agility. Without denying the veracity of this argument, we approach the relationship from the opposite direction, exploring how strategic agility can

inform the approach to managing paradox. There is support for treating strategic agility as either a dependent or independent variable depending on the research context. For example, Brueller et al. (2014) focus on whether mergers and acquisitions inhibit or create strategic agility, while Junni et al. (2015) focus on the role of strategic agility as a contributing factor to the acquisition process, and Doz and Kosonen (2010) discuss the ability of strategic agility to contribute to successful business model renewal and transformation. Here, we concentrate on the application of strategic agility, and its three meta-capabilities, to managing corporate sustainability with a paradoxical lens.

The Venn diagram depicted in Fig. 1 is presented again in Fig. 2 with additional explanation and evidence summarising the theoretical overlaps between the three concepts which are central to our paper.

We now turn our attention to the centre of this Venn diagram—the nexus between all three concepts—as we build our conceptual framework.

Towards a Conceptual Framework

Having explored the three concepts central to this paper, we now begin to draw these together towards a cohesive conceptual framework. We start by addressing the first research question focusing, in this section, on organisational capabilities which contribute to managing corporate sustainability with a paradoxical lens. The following section addresses practices and processes associated with these capabilities.

Theorising Organisational Capabilities: Strategic Agility on Paradoxical Pathways

Smith and Lewis's (2011) foundational model in paradox theory comprises four pathways. The first two pathways centre on the paradoxical tensions themselves: first, a pathway leading to paradoxical tensions which exist but remain latent within the organisation, followed by a pathway leading to these tensions becoming salient, that is "experienced by organizational actors" (Smith and Lewis 2011, p. 390). Our paper takes as an assumption the existence of these pathways (see Knight and Paroutis 2017, for a more detailed examination). The second two pathways form the focus of our paper and centre on the management strategies related to paradoxical tensions, specifically the pathway to achieving organisation-wide acceptance of paradox and the pathway to enacting paradoxical resolutions. We dissect this section in line with these pathways to focus first on the organisational capabilities that contribute to organisation-wide acceptance of paradox, and second on the capabilities that contribute to paradoxical resolution. We propose that strategically agile firms draw on the meta-capabilities of strategic sensitivity and collective commitment to navigate the pathway to organisation-wide acceptance of paradox and then draw on collective commitment and resource fluidity to navigate the pathway to

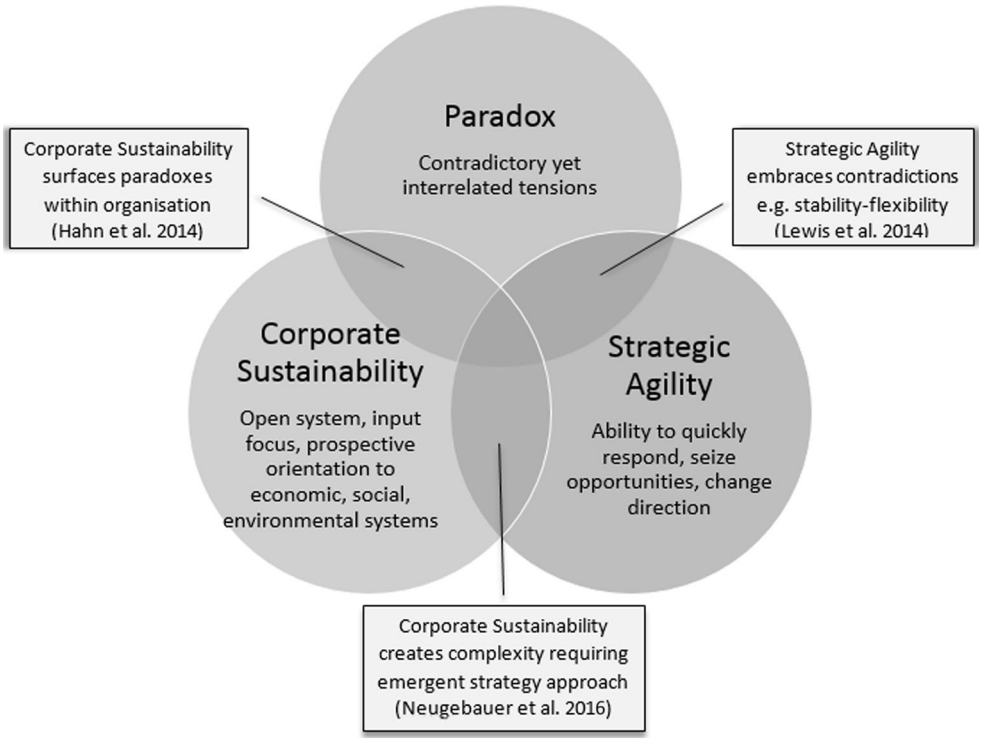

Fig. 2 Relationships between corporate sustainability, paradox, and strategic agility

paradoxical resolution. We now examine these two pathways in more detail.

Pathway to Acceptance of Paradox

Organisation-wide acceptance of paradox denotes a recognition of inconsistencies, conflict, and ambiguity as natural working conditions (Poole and Van de Ven 1989; Luscher and Lewis 2008), viewing such tensions as an invitation for creativity (Beech et al. 2004). By allowing actors to embrace or "live with" paradox (Clegg et al. 2002), they "shift their expectations for rationality and linearity to accept paradoxes as persistent and unsolvable puzzles" (Smith and Lewis 2011, p. 385). Acceptance is a powerful mindset which reduces defensiveness (Cameron 1986) and enables more complex and challenging approaches to resolution (Smith and Lewis 2011). Once actors understand and accept contradictions, they are more likely to embrace and benefit from tensions (Lewis et al. 2014) because "they can mindfully explore the dynamic relationship between tensions" (Smith and Lewis 2011, p. 392). Empirically, Luscher and Lewis (2008) demonstrated that once managers accepted that they were unable to choose between competing tensions, they were more open to consider "both/and" options.

In their original model, Smith and Lewis (2011) outline two individual factors and one organisational factor as spurring acceptance of paradox. At the individual level, they propose cognitive and behavioural complexity (Smith and Tushman 2005) as well as emotional equanimity (Huy 1999; Sundaramurthy and Lewis 2003). At the organisational level, they propose dynamic organisational capabilities—the processes, routines, and skills that enable firms to respond effectively to constantly shifting environments (Teece et al. 1997). However, they provide limited further explication of this argument. Given strategic agility emerged from dynamic capabilities literature, our theorising of this pathway using strategic agility can be seen as an extension of Smith and Lewis's (2011) proposal, but with a theory which offers a more detailed analytical frame and provides an opportunity to articulate specific organisational practices and processes.

We propose that the meta-capabilities of strategic sensitivity and collective commitment work interdependently to contribute to acceptance of paradox. Strategic sensitivity increases the depth and breadth of the organisation's ability to understand and interpret the wider organisational environment. By making actors more cognisant of complex ecosystems which both impact and are impacted by the organisation (Pascale et al. 2000) and by incorporating organisational sense-making (Doz and Kosonen 2008a), the existence of paradox in such complexity is no longer antithetical. We also make note of an element of imitability, whereby organisations, who are sensitive to competitors and their acceptance of paradox, feel more confident accepting it themselves. Collective commitment also contributes to acceptance of paradox by building common ground and coalitions of support for these ideas as well as leveraging existing trust for paradox champions. This in part draws on top-down leadership whereby paradox is validated by top management, but in keeping with our arguments relating to dispersed leadership also incorporates more informal leadership from organisation members. Where organisation members share empathy and trust, they are more likely to be engaged in the process and willing to accept paradox as part of that. Far from being discrete, interdependencies exist between these two meta-capabilities (Doz and Kosonen 2008a; Brueller et al. 2014) in pursuit of acceptance. It is important to imbue strategic sensitivity at all levels and throughout all functions across the organisation to contribute to collective commitment. As such, strategic sensitivity and collective commitment work together to contribute to the acceptance of paradox.

Pathway to Paradoxical Resolution

The pathway to paradoxical resolution remains unlabelled and un-theorised in Smith and Lewis's original model, with the authors focusing instead on different types of resolution, rather than capabilities which contribute to them (Smith and Lewis 2011). While two types of resolution exist in the literature—splitting, which can include temporal or spatial divisions (Tushman and Romanelli 1985), or integrating tensions, aimed at finding synergies that accommodate opposing poles (Jarzabkowski and Sillince 2007)—Smith and Lewis (2011) propose combining these (see also Poole and Van de Ven 1989). As such, paradoxical resolution comprises "purposeful iterations between alternatives in order to ensure simultaneous attention to them over time" (Smith and Lewis 2011, p. 392). The authors describe this approach as "consistent inconsistency" whereby managers frequently and dynamically shift decisions. While it is true that any choice between competing options is temporary and the tension will resurface, organisational members still make such choices as part of a wider and longer-term approach.

We propose that the meta-capabilities of collective commitment and resource fluidity work interdependently to contribute to such paradoxical resolution. Collective commitment has a key role in avoiding internal disagreements and politics which can create obstacles to action, particularly where such action is unexpected, controversial, or radical. As such, it is central to paradoxical resolution characterised by "consistent inconsistency", which has the potential to cause apprehension among organisational members. Resource fluidity also contributes to paradoxical

resolution. Central to this meta-capability is the redeployment of resources and reconfiguration of business systems in a timely manner, which is necessary when managers frequently and dynamically shift decisions in pursuit of paradoxical resolution. Resource fluidity comprises practical coordinative capabilities, intimate understandings of resource allocation, and flexibility designed into the structure of assets. Again, examining interdependencies, there are strong links between collective commitment and resource fluidity. Doz and Kosonen (2008a) observe that "even when wholehearted, commitments are still only as good as the resources put behind them" (p. 96) and empirically in a later paper that "indecisiveness at the top and rivalries at the bottom conspired to make resource fluidity more difficult" (Doz and Kosonen 2011, p. 156). As such, collective commitment and resource fluidity work together to contribute to paradoxical resolution.

The contributions of strategic agility's meta-capabilities to the pathways to acceptance of paradox and to paradoxical resolution are depicted in Fig. 3.

In summary, strategic sensitivity and collective commitment work together to contribute to acceptance of paradox, while collective commitment and resource fluidity work together to contribute to paradoxical resolution. We note that, given the cyclical nature of acceptance and resolution, this distinction is somewhat academic. That is to say, if resolution requires acceptance, then all three meta-capabilities are important to achieve resolution. However, by way of deconstructing these pathways, this provides a useful structure.

The final section of our paper addresses the second research question, focusing on organisational practices and processes specifically associated with corporate sustainability, which comprise each strategic agility meta-capability.

Theorising Practices and Processes: Corporate Sustainability and Strategic Agility Meta-Capabilities

Thus far, this paper has proposed the three meta-capabilities of strategic agility as the organisational capabilities which contribute to managing corporate sustainability with a paradoxical lens. In this final section, we scrutinise these meta-capabilities in the context of corporate sustainability to identify organisational practices and processes that can be leveraged to achieve them. This strengthens our theoretical contribution by adding detail to the strategic agility meta-capabilities and integrates corporate sustainability into the conceptual framework. Moreover, it continues the tradition of strategic agility scholars by ensuring our work has clear contributions to practice. We propose that strategic sensitivity leverages strategic analysis, learning and adaptation, and cognitive diversity, that collective commitment leverages language and dialogue, safe experimentation space, and rewards and incentive structures, and that resource fluidity leverages supply chain management, organisational design, and organisational slack. While we accept that this list of practices and processes is not exhaustive, we offer it as an initial contribution. We now examine the practices and processes associated with each meta-capability, exploring the complex dimensions of corporate sustainability which they draw on or address (open-system approach, input focus, or prospective orientation) and articulating their role on the pathway to acceptance of paradox, to paradoxical resolution, or on both pathways.

Strategic Sensitivity: Strategic Analysis, Learning and Adaptation, Cognitive Diversity

Strategic sensitivity leverages well-established strategic analysis techniques such as future option evaluation or scenario planning (Bishop et al. 2007; Moyer 1996). Linked to the prospective orientation of corporate sustainability, such techniques draw on environmental scanning and sensitise the organisation to the range of possible futures it might face. One of the strengths of these techniques is that they generate seemingly contradictory options for consideration (Bishop et al. 2007), and so do not seek trade-offs which are antithetical to the notion of paradox (Smith and Lewis 2011). Where these techniques become ingrained in organisational members and their processes, they also contribute to the input focus of

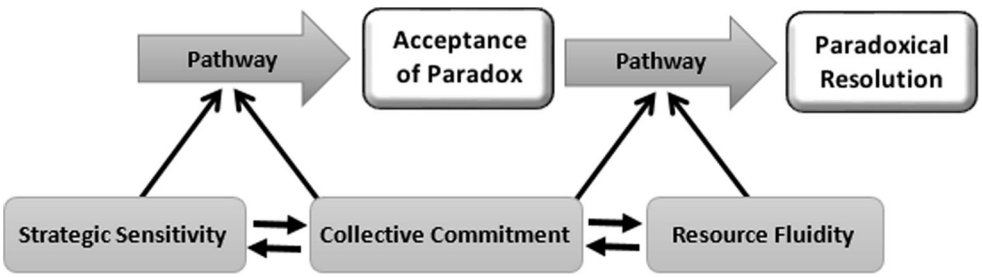

Fig. 3 Paradox pathways

corporate sustainability. In this way, strategic analysis techniques contribute to acceptance of paradox by making individuals and teams cognisant of relevant information and the related future options scenarios.

Organisational learning and adaptation is also leveraged to achieve strategic sensitivity and is central to the notion of agility overall. This requires widespread engagement with external and internal stakeholders (Freeman 1984) drawing on the open-system nature of corporate sustainability and offering sources of intelligence on changes in an organisation's ecosystem. The fact that different stakeholders may place conflicting demands on the organisation is axiomatic (see Rowley 1997). However, management with a paradoxical lens demands that competing stakeholder's needs are not seen as mutually exclusive, but rather as opportunities for learning and adaptation via a feedback loop from externally facing organisational members. In the context of corporate sustainability, this is likely to include those engaged with local communities, suppliers, employee groups, legislators, and environmental lobby groups among others. This practice builds a prospective orientation to the strategic environment as well as making the organisation more porous and thereby drawing on and contributing to an open-system approach to its ecosystem (see, for example, Stacey 1993; Reeves et al. 2016). This approach to learning and adaptation contributes to acceptance of paradox by preventing inertia and defensiveness with organisations.

Finally, organisations that pursue cognitive diversity have leaders and team members with differing expertise and world views, making them strategically sensitive to wider issues. Proactive recruitment and training of a diverse range of individuals, as well as the design of team membership minimises issues such as "groupthink" and blindness to external trends (Ely and Thomas 2001; Pfeffer 1985), and embeds an open-system approach central to corporate sustainability. Doz and Kosonen (2011) point to mistakes made by the "new" Nokia top team who had all "grown professionally within the telecom context and were to an extent hostage to it" (p. 155), with none having a background in or recognition of the competitive threat or opportunity of internet services businesses. This lack of cognitive diversity made them blind to the fundamental changes in the telecoms industry. From a corporate sustainability perspective, pursuing cognitive diversity means ensuring a mix of team members possessing (for example) environmental, supply chain, labour exploitation, community impact, financial, or policy expertise, with the precise mix dependent on the organisation's unique attributes, positioning, and risks. Nevertheless, the purpose of cognitive diversity is common to all organisations: to contribute to strategic sensitivity by surfacing and acknowledging the existence of diverse views and perspectives. As such, this contributes to the acceptance of paradox.

Collective Commitment: Language and Dialogue, Safe Experimentation Space, Reward and Incentive Structures

The reflexive use of appropriate language and dialogue is fundamental to fostering collective commitment. Language and dialogue can be used to build empathy and trust which are key to engagement and commitment (Doz and Kosonen 2010). It encourages mutual understanding beyond the specific issue at hand, promoting a prospective orientation and validating an open-system approach associated with corporate sustainability. Brannen and Doz (2012) highlight the importance of language retaining sufficient context specificity to be understood by organisational members, while allowing a balance with conceptually abstract language to encourage creative thought and novel approaches, which are hallmarks of a paradoxical approach. Others have argued that management teams need to find time together for informal dialogue by avoiding excessively structured and overcrowded agendas (Doz and Kosonen 2008a). In line with collective commitment's dual pathways, language and dialogue contribute to both acceptance of paradox and to paradoxical resolution. They do this by both implicitly making alternative options seem possible and by functioning as a persuasive discourse or rhetorical practice (Bednarek et al. 2017).

Safe experimentation space draws on the notion of "safe learning" (Galbraith 1982) to ensure experimentation of thought and practice is allowed and encouraged, thereby fostering collective commitment. Safe experimentation can be promoted through, for example, "separating persona from position…so team members can disagree on issues quite openly without seeing themselves challenged personally" (Doz and Kosonen 2008a, p. 114). Lewis et al. (2014) contend that allowing space for diverse perspectives and the expression of radical and conflicting opinions leads to more effective decision-making. An ethos of experimentation is not only important in the conception of ideas but in the subsequent acceptance of seemingly maverick or heretical thinking around corporate sustainability, drawing on the open-system approach. This is a key issue in paradoxical management; the open acceptance of paradox makes no one "right" or "wrong" and thereby enables more constructive discussion without defensiveness. Byrch et al. (2015) describe this as "spaces of possibility" allowing for novel and innovative responses to sustainability issues, relying on free and open debate and dialogue which accepts the plurality of interpretations of sustainability issues (Hahn and Aragon-Correa 2015). Again, in keeping with the duality of collective commitment, safe experimentation space contributes to acceptance of

paradox by encouraging such paradoxes to be surfaced, but also to paradoxical resolution by gestating novel and creative possibilities.

Finally, collective commitment leverages reward and incentive structures, both as a motivator of individual and team behaviours, and as a signal of organisational priorities. Where such structures focus on linear indicators—such as financial performance outcomes—collective commitment to paradox is less likely to be achieved, with negative consequences for both acceptance and resolution. In their empirical study, Epstein et al. (2015) found that despite informal systems promoting sustainability, formal performance systems still focused on financial performance, creating a conflict. Moreover, rewards and incentives are often linked to outputs, in part because outputs are definable and measurable. Reward and incentive structures that draw on an input focus and prospective orientation in relation to corporate sustainability embrace the inputs that organisational members and teams have direct control and influence over, and allow members to look to the future. Such structures contribute to acceptance of paradox, especially in their role as a signal of organisational priorities, as well as paradoxical resolution, by ensuring that they do not incentivise static behaviour or resolutions which prioritise, for example, the pursuit of short-term economic returns.

Resource Fluidity: Supply Chain Management, Organisational Design, Organisational Slack

Proactive and future-oriented approaches to supply chain management leverage partnerships with suppliers as they work together towards common aims (Jüttner et al. 2003; Wolf 2014). Drawing on open-system, input focus and prospective orientation of sustainability, such approaches have increasingly been labelled sustainable supply chain management (SSCM). SSCM focuses on the development of intangible and unique resources and capabilities often involving "advanced relational capabilities with suppliers of scarce and critical resources" (Wolf 2014, p. 319). This contributes to resource fluidity by providing organisations with both an intimate knowledge of existing resources, and an ability to influence fast and efficient resource redeployment. SSCM ensures organisations continually assess the risks associated with supplies and the deployment of tangible and intangible resources, and maintain contingency plans for sourcing due to delays or discontinuities, or redeployment due to internal decision-making. As such, it is central to enacting paradoxical resolutions.

Organisational design represents structural arrangements which give meaning and coherence to an organisation's goals, delineate who makes the decisions and how these are made, and reflect communications and reporting strategies (Burton et al. 2011): all central coordinative practices and processes in achieving resource fluidity. While traditional organisational designs can impede swift mobilisation and redeployment of resources (Griffiths and Petrick 2001), alternative architectures including network organisations, virtual organisations, or communities of practice (see Griffiths and Petrick 2001 for a detailed explanation of these) are specifically designed to support and embrace such aims. This draws on the input focus of corporate sustainability with organisational design and its constituent elements representing a key input, and such alternative architectures providing structural support for a more porous and therefore open-system approach to corporate sustainability. Hahn and Aragon-Correa (2015) maintain that such loosely and decentralised structures facilitate the translation of diverse and pluralistic interpretations of sustainability into organisational practice. As such, organisational design contributes to paradoxical resolution through resource fluidity.

Finally, organisational slack provides a cushion of excess resources (Bourgeois 1981) or a supply of uncommitted resources (Cyert and March 1963), which can be leveraged to support resource fluidity. Organisational slack helps firms cope within increasingly complex systems and technologies (Bowen 2002; Lawson 2001) and can include excess resources in budgets, unused capacity, and employees' redundant time (Bowen 1999). Moreover, slack provides opportunities and funds for experimentation (Hambrick and Snow 1977) and innovation (Nohria and Gulati 1997) reflecting the resource support element for safe experimentation spaces identified in collective commitment. Organisational slack is central to resource fluidity which requires "a significant investment of resources to maintain the high levels of flexibility and speed necessary to be able to respond to sudden environmental threats and opportunities" (Weber and Tarba 2014, p. 6). It draws fundamentally on the input focus of corporate sustainability, given it revolves around resources inputs into the system, but also underpins its prospective orientation as organisational slack supports an uncertain and changing future. Given paradoxical resolution may not necessarily employ the most efficient solution, organisational slack forms a foundation for this pathway both by supporting the development of ideas that form these solutions, and by contributing to the implementation of these ideas.

This section represents the culmination of our aim to theorise the organisational practices and processes, which can be leveraged to obtain strategic agility, and so contribute to the successful management of corporate sustainability with a paradoxical lens. Drawing all these elements together, our conceptual framework is depicted in Fig. 4.

The conceptual framework theorises the pathways to acceptance of paradox and paradoxical resolution,

identifying organisational capabilities which contribute to each. Framed around the strategic agility meta-capabilities, it identifies practices and processes which can be leveraged to attain such organisational capabilities. As such, it responds to our initial research questions by identifying the organisational capabilities and the individual practices and processes that contribute to managing corporate sustainability with a paradoxical lens. We now consider opportunities for a future research agenda and provide some concluding thoughts.

Contributions and Future Research

As indicated in the introduction, this paper contributes to paradox theory, corporate sustainability, and strategic agility, in particular by articulating the nexus between the three concepts. We now outline these contributions again, before identifying avenues for future research.

We make a theoretical contribution through the application of strategic agility and its three meta-capabilities, to under theorised pathways on the existing model from paradox theory. Specifically, we propose the interdependency between strategic sensitivity and collective commitment contributing to acceptance of paradox, and between collective commitment and resource fluidity contributing to paradoxical resolution. Future research should examine these interdependencies further. In particular, it occurs to us that these meta-capabilities may be progressively cumulative in nature: collective commitment may require that strategic sensitivity is first achieved, while resource fluidity may require that both strategic sensitivity and collective commitment have been achieved. A longitudinal empirical examination may reveal whether the progression through meta-capabilities is a cumulative process, with strategic agility only achieved once all three have accrued.

In our framework, the meta-capability of collective commitment contributes to both paradox pathways. Future research may attempt to deconstruct this further, perhaps theorising beyond the general title of "collective commitment" to a deeper understanding of its complex nature and differing make up in relation to the two pathways. Further theoretical examination and, importantly, empirical evidence may uncover a more accurate definition.

Responding to calls for new approaches to corporate sustainability in the light of its complexity (Hahn et al. 2010), we have articulated this complexity systematically, while then focusing on practices and processes which draw on the different dimensions and can be leveraged to achieve strategic agility at the organisational level. However, it occurs to us that some of these practices and processes cross over into the realm of the individual (e.g. learning and adaptation, language and dialogue). Moreover, from paradox theory, Smith and Lewis' (2011) original model theorised the pathway to the acceptance of paradox as comprising both individual *and* organisational capabilities. While we have focused only on the latter, we see an important opportunity for a theoretical and empirical investigation of the interrelationship between individual- and organisational-level constructs related to managing corporate sustainability with a paradoxical lens. For

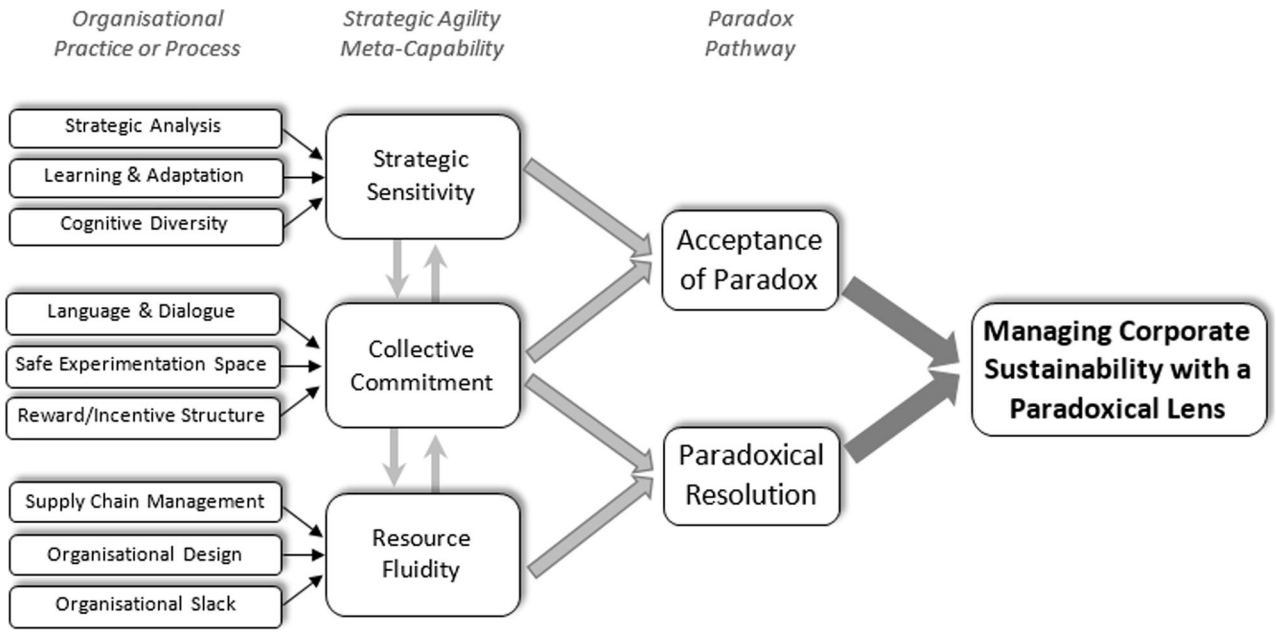

Fig. 4 Conceptual framework

example, we encourage work to combine the conceptual framework from our paper with Hahn et al.'s (2014) paradoxical framing approach to corporate sustainability at the individual level.

Finally, our applied contribution comprises specific organisational practices and processes associated with strategic agility meta-capabilities, both in terms of the aspects of corporate sustainability they draw on, and in terms of the paradoxical pathways to which they contribute. A fruitful avenue for future research would empirically investigate the practices and processes associated with each meta-capability either deductively, using those proposed in this paper, or inductively using a more grounded approach. The latter would inevitably extend the range of practices and processes beyond those we have initially proposed here.

Conclusions

Our goal in this paper was to theorise the organisational capabilities—and practices and processes leveraged to achieve them—which contribute to managing corporate sustainability with a paradoxical lens. To do so, we focused on the pathways to organisation-wide acceptance of paradox and to paradoxical resolution, arguing that strategically agile organisations are well placed to navigate these pathways. Our contribution provides a much-needed theorisation of the nexus between paradox and corporate sustainability at the organisational level, through the useful theoretical construct of strategic agility which bridges these concepts. We provide an applied contribution by articulating specific organisational practices and processes associated with the application of strategic agility to managing corporate sustainability with a paradoxical lens. Finally, we offer a springboard for future research by way of our conceptual framework.

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