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HOW ORGANIZATION AGILITY PRODUCES SUSTAINED PERFORMANCE: BRINGING COHERENCE TO DIVERSE CONCEPTUAL PERSPECTIVES

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Abstract

Why and how organizations change – especially in competitive and dynamic environments – are central questions in organization theory and strategic management. Organization agility (OA) has emerged as a construct to describe the way organizations adapt quickly to continuous disruption and change, and theories explaining how OA works and produces performance outcomes have proliferated. They provide insightful yet sometimes conflicting and unresolved explanations of OA. We analyze OA theories and identify different perspectives and conceptual ambiguities about how OA forms, functions, and performs. We then develop a causal model of OA performance that integrates different perspectives and addresses these theoretical issues.

How Organization Agility Produces Sustained Performance:
Bringing Coherence to Diverse Conceptual Perspectives

Why and how organizations change remain central questions in organization theory and strategic management (Cummings & Worley, 2023; Barney 2001; Rajagopalan & Spreitzer, 1997; Astley & Van de Ven, 1983) particularly as competitive environments become more volatile, uncertain, complex, and ambiguous (VUCA). Organizations confronting high levels of environmental uncertainty face demands to be more organic (Lawrence & Lorsch, 1967; Burns & Stalker, 1961); yet organizing for bureaucracy and efficiency persist (Hamel & Zanini, 2017). Similarly, as environmental disruptions become more and more frequent, organizations can no longer rely on long periods of incremental change interspersed with brief revolutionary phases (Tushman & Romanelli, 1985). In today's volatile environments, organizations' ability to change on demand, more than efficient structures or intermittent transformations, is essential for performance and survival.

Organization agility (OA) has emerged as a ubiquitous solution to succeeding in VUCA environments (Teece et al., 2016; Weber & Tarba, 2014). It enables organizations to change quickly in response to continuous disruption (Walter, 2021). As OA has gained in popularity among academics and practitioners, theories and frameworks seeking to explain how it works have proliferated (Sull, 2009; Worley et al., 2014; Singh et al., 2013). Some conceptions extend traditional change theories into this new context (Kotter, 2012; Bharami & Evans, 2011) while others address OA from the perspectives of leadership (Joiner, 2019), culture (Felipé et al., 2017), IT/supply chain (Bi et al., 2013), dynamic capability (Baškarada & Koronios, 2018), and strategy (Doz, 2020). Although much of this theorizing develops our understanding of the OA capability, it also has generated diverse and sometimes conflicting descriptions and explanations of an agile organization's structures, processes, and outcomes (Wendler, 2014). There is

ambiguity, for example, about how OA differs from conceptions of adaptation, transformation, and dynamic capability (Overby et al., 2006). There is concern that OA theories do not adequately address strategy implementation and organization flexibility (Christofi, et al., 2021), or whether firms in less dynamic environments should even consider being agile (Winter, 2003).

The purpose of this paper is to develop a causal model of OA performance that addresses these basic issues. We compare OA theories and identify their similar and different perspectives on how OA forms, functions, and produces outcomes. This provides a conceptual introduction to our model.

COMPARING ORGANIZATION AGILITY FRAMEWORKS

Agility has long been a construct in ballet, gymnastics, and animal training to describe how balance, coordination, and strength interact to enable quick changes in direction with ease and control. Applied to organizations, agility initially focused on manufacturing dexterity as a quasi-national industrial policy (Nagel & Dove, 1991) and later as an evolution in software development (Beck et al., 2001). OA frameworks are decidedly prescriptive and propose a certain type of organization change relevant to dynamic and uncertain environments. We focus on theory-based perspectives (e.g., Teece et al., 2016; Rindova & Kotha, 2001; Singh et al., 2013) as well as select organization change theories relevant to OA (e.g., Herhausen et al., 2021).

OA theories share certain perspectives. They commonly recognize endogenous sources of change (Walter, 2021), yet align closely with an exogenous adaptation perspective (Sarta et al., 2021; Weber & Tarba, 2014). They tend to draw on a dynamic capabilities framework where organizations reconfigure resources to gain or sustain competitive advantage as the circumstances demand (Teece et al., 1997; Teece, 2014). OA theories apply similar terms, such

as “speed,” “quickly,” and “rapidly,” to emphasize the rate of change essential to adapting to VUCA environments (Sherehiy et al., 2007).

These conceptual similarities can obscure important and sometimes conflicting differences in how OA is described and explained (Smith, et al., 2020; Cummings & Worley, 2023). They include four theoretical issues that need clarification: (1) the performance outcomes of OA, including the identification of a definitive dependent variable and a causal explanation for how those outcomes are produced; (2) the content and magnitude of OA change; (3) the processes that direct and guide OA change; and (4) the agile organization design features that support both exploitation and exploration activities.

Change and Performance Outcomes

OA frameworks provide mixed and sometimes incomplete conceptions of performance outcomes. Despite growing attention to financial performance (Tallon & Pinsonneault, 2011; Chakravarty et al., 2013; Cegarra-Navarro et al., 2016), dependent variables other than performance prevail. Some OA models specify organization change as the dependent variable (e.g., Ramasesh et al., 2001); others do not identify particular outcomes (e.g., Sherehiy et al., 2007; Overby et al., 2006). Moreover, studies that empirically assess financial outcomes often fail to distinguish between short- and long-term effects. They rely on cross-sectional rather than lagged or longitudinal analyses, raising criticisms of spurious correlation.

Theories focusing on the OA-performance relationship often overlook the organizational changes that produce those outcomes (e.g., Singh et al., 2013; Worley et al., 2014; Baškarada & Koronios, 2018; Teece et al., 2016; Walter, 2021). Instead, they propose a direct relationship between change capabilities and performance. Yet the ability to change needs to result in actual organizational changes that produce performance effects (Clauss et al., 2019; Arbussa et al., 2017; Battistella et al., 2017), such as changes in business models (Battistella et al., 2017),

strategy, resources, or capabilities (Teece et al., 2016; Weber & Tarba, 2014), "operational responsiveness" (Shin et al., 2015), and resource deployment patterns (Doz & Kosonen, 2007). Attention to how organization change mediates the change capability-performance relationship is essential to understand the causal mechanisms underlying OA performance effects (Ketchen et al., 2007; Sirmon, et al., 2007; Protogerou et al., 2012). Otherwise, OA theory faces what Sarta et al. (2021) called the "adaptation without strong performance" problem.

Content and Magnitude of Change

Descriptions of the content and magnitude of OA-related change vary widely making it difficult to define the OA phenomenon. Some frameworks address specific changes. "Strategic agility" models (van Oosterhout et al., 2006; Doz & Kosenen, 2010) focus on changes in products/services, mission and purpose, innovations, or "business systems" to address an opportunity presented by the environment (e.g., Weber & Tarba, 2014; Wendler, 2014; Singh et al., 2013). Similarly, "strategic flexibility" (Sanchez, 1995; Borzovic, 2018), "organizational flexibility" (Volberda, 1996), and similar perspectives define OA change in terms of an organization's assets, knowledge, and relationships (Sambamurthy et al., 2003), best practices (Ramasesh et al., 2001), strategy, organization design, and culture (Tushman & Romanelli, 1985; Weber & Tarba, 2014; Sherehiy et al., 2007), and the ability to control organizations' flexibility (Volberda, 1996).

Other frameworks offer vague descriptions of OA change. Walter (2021), Sherehiy et al. (2007), Tallon & Pinsonneault (2011), Sull (2009), Worley et al. (2014), and Aghina et al. (2015) describe the ability to change but do not specify what organizational features are involved. Similarly, "resources" is frequently used to describe OA changes. However, inconsistent definitions of the term ranging from anything the firm controls to specific assets and competencies (Wernerfelt, 1984: 172; Barney, 1991: 101; Grant, 1991) can lead to extremely

broad or relatively narrow descriptions of OA change content. Absent clearer descriptions of OA changes, they could refer to almost any organizational change.

OA theories also differ with respect to the magnitude of change. It has been described as falling along a continuum from incremental to radical or high-magnitude change (Tushman & Romanelli, 1985). Since organizations experience some degree of continuous change (e.g., hiring new employees, revising budgets), OA involves changes above normal levels as van Oosterhout et al. (2006) and Singh et al. (2013) pointed out.

Initiating and Guiding Change

Frameworks vary in explaining how OA-related changes are initiated and guided. Surprisingly, how organizations learn to become agile in the first place is rarely addressed. A prevalent "sense and respond" approach to OA emphases that the environment determines the content of change (Haeckel, 1999). Generically, agile organizations respond to uncertainty and disruption by increasing the rate and magnitude of product and service innovation variety to adapt to these emerging pressures (Singh et al., 2013). A few OA perspectives adopt an executive decision-making view of change where environmental shifts may be important but do not compel or cause OA change. Rather, leaders' interpretation and choice play a key role (Tushman & Romanelli, 1985; Teece et al., 2016; Sull, 2009).

Despite the normative claim that OA change should be closely connected to and guided by organization strategy (Teece et al., 2016), few agility frameworks afford strategy an explicit role in the change process (e.g., Worley et al., 2014; Sambamurthy et al., 2003; Herhausen et al., 2021). Even "strategic agility" frameworks (Doz & Kosonen, 2007; Singh et al., 2013) rarely mention that prior strategies influence subsequent strategy choices; nor do they suggest that features closely related to strategy, such as organization values, culture, and identity (cf.,

Wendler, 2014; Worley et al., 2014) guide OA change. Each change choice is seen as beginning from a clean slate.

These various OA change-guidance perspectives tend to ignore possible negative consequences. If agility is driven by environmental change (or interpretations of environmental change) or unguided by strategy, organizations may be whipsawed by these shifts. The ability to change can become an aimless knee-jerk response to external disruption.

Similarly, OA theories pay relatively little attention to the learning and development processes needed to become or be a better agile organization (cf., Wendler, 2014; Volberda, 1996). Emphasis is placed on OA features and operations while the processes that develop and improve agile functioning are overlooked (Haarhaus & Liening, 2020; Cyfert et al., 2021). Those OA frameworks that address learning to change consider it a fundamental feature of agile capabilities (Teece, 2014; Winter, 2003), a "*learned*, permanently available dynamic capability" (Walter, 2021: 379, emphasis added). However, this begs the provenance question: How do agile organizations become agile in the first place? They must learn and develop the necessary dynamic capabilities and then exercise them repeatedly (Zollo & Winter, 2002; Teece et al., 1997). OA theories need to explain how organizations learn these agile capabilities.

The roots of this oversight in OA learning and development stem from theory that draws on traditional views of organization change as an episodic versus continuous process (Weick & Quinn, 1999; Bartunek & Jones, 2017; Mithani, 2020). Organizations are pushed out of equilibrium by disruptive events, transform themselves, and then return to relative stability and incremental change (Tushman & Romanelli, 1985). In these situations, organization transformations are treated as an event to be managed, not an opportunity for learning and development. Because change capability is not learned and embedded in the organization, the skills and competencies for organization change tend to be rented from outside experts, such as consulting firms (Smith et al., 2020).

Exploitation and Exploration

In most environments, organizations face the inherent dilemma between efficient exploitation today and creative exploration of future value (O'Reilly & Tushman, 2013; Doz, 2020). With few exceptions (e.g., Worley et al., 2014; Volberda, 1996; Tallon & Pinsonneault, 2011; Aghina et al., 2015), OA frameworks pay limited attention to the challenge of jointly managing exploitation and exploration. They focus on the exploration side of this duality.

OA theory's attention to exploration and speed ignores the basic nature of the organizational design features and processes being changed. OA is consistently defined as a dynamic capability that changes ordinary capabilities, and capabilities (both ordinary and dynamic) "need to be understood not in terms of balance sheet items, but mainly in terms of the organizational structures and managerial processes which support productive activity" (Teece et al., 1997: 517). Capabilities are operationalized in an organization's design; they result from experience, knowledge codification, and learning (Rindova & Kothka, 2001; Teece, 2014; Winter, 2003), and are valued for their repeatability (Teece, 2014; Nelson & Winter, 1982; Helfat & Winter, 2011).

Other than to say, "repeatability has costs" (Teece et al., 2016), OA frameworks rarely acknowledge that OA can disrupt the reliability and repeatability of ordinary capabilities (Sarta et al., 2021; Davis & Atkinson, 2010) and increase the risks and hazard rates of change (Hannan & Freeman, 1984; Singh et al., 1986; Leonard-Barton, 1992). Structural and cultural inertia (Hannan & Freeman, 1984) or momentum (Miller & Friesen, 1980) make organizational change difficult and often require significant internal and external disruptions to break through their grip (Sarta et al., 2021; Tushman & Romanelli, 1985). Although some change choices might be limited by path dependency, there has been little inference that agile organizations might not be able to change because of it (Teece et al., 1997; Teece, 2014: 336). Moreover, when agile

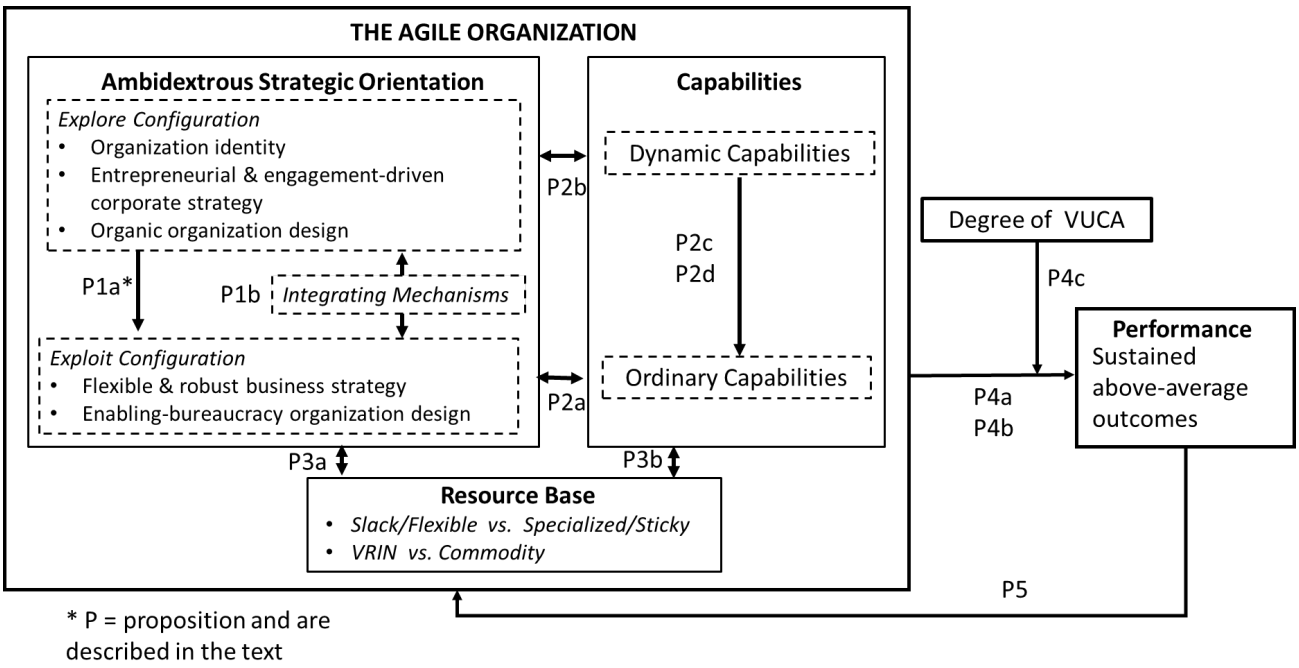
organizations focus on sensing and responding quickly, they are unlikely to seize and leverage current competitive advantages long enough to capture rents above the costs of exploration and innovation.

Our review of OA frameworks and related change perspectives reveals substantial diversity in the processes and outcomes of the agility phenomenon. There are important conceptual differences and ambiguities about how OA affects organization change and performance; the type and amount of change that characterize agility; how OA change is initiated and guided; and how agility reconciles pressures for repeatability and change. Adding to this equivocality is a substantial overlap between OA perspectives and such related organization change concepts as adaptation (Sarta et al., 2021), episodic change (Tushman & Romanelli, 1985), strategic change (Müller & Kunisch, 2018), strategic flexibility (Brozovic, 2018), and dynamic capabilities (Teece et al., 1997; Eisenhardt & Martin, 2000).

A MODEL OF HOW ORGANIZATION AGILITY PRODUCES SUSTAINED PERFORMANCE

Figure 1 presents a causal model of OA that addresses these basic unresolved issues in OA theory. It describes the components of an agile organization and how they interact to produce performance outcomes.

Figure 1: A Causal Model of Organization Agility



An agile organization has three interdependent components. First, an *ambidextrous strategic orientation* (ASO) consists of an organization identity, strategies, and organization designs arranged into an explore configuration that guides overall organization development, an exploit configuration that creates temporary competitive advantage (D'Aveni et al., 2010), and a set of integrating mechanisms that coordinate the two configurations. Second, each configuration determines (via strategy) and operationalizes (via organization design) particular types of *capabilities*. Ordinary capabilities are defined and operationalized by the exploit configuration. They describe the organizational activities that create performance outcomes and ensure survival. Dynamic capabilities are defined and operationalized by the explore configuration. They change ordinary capabilities and their associated exploit configuration. Finally, an agile organization's *resource base* includes assets and competencies (Grant, 1991) that serve as inputs to the ASO

and the capabilities, which, in turn, can influence the resource base's evolution. The numbers and types of available resources affect the characteristics of the ASO and capabilities.

The causal model's central premise is that sustained above-average performance is a function of an agile organization's capacity and capability to change. An agile organization's ASO and resource base determine its *capacity* to change, the potential range and magnitude of its change activity. Change capacity is enhanced when it is organized and resourced properly. Capabilities define an organization's *ability* to change, the actual competence to perform an activity and bring about a certain outcome (Winter, 2003; Singh et al., 2013). Thus, the strength of an organization's agile capability depends on its change capacity; it may want to enter promising new markets but not have the capacity to do so.

The model also proposes that an agile organization's effect on performance varies by the degree of environmental VUCA. Finally, an agile organization's performance outcomes provide feedback to learn how to improve its change capacity and capability. OA is a learned capability that emerges over time, and descriptions of agile organization functioning account for this dynamic context.

We first define OA-related performance outcomes, the dependent variable of the model. For ease of explanation, the focus is on for-profit firms, although OA applies to not-for-profit and governmental performance outcomes as well. Then, an agile organization's components and their relationships are described and how they jointly affect performance is explained. We conclude by describing the learning and feedback processes initiated by performance changes.

OA Performance Defined

The objective of OA is to produce sustained above-average performance, which comprises metrics, benchmarks, and time horizons (Richard et al., 2009; Miller et al., 2013). Performance outcomes rather than competitive advantage are the dependent variable because

they indicate that the organization has "appropriated" the effective application of resources and capabilities (Collis & Montgomery, 1995). Both market-based (e.g., total shareholder return (TSR)) and accounting-based metrics (e.g., return on assets (ROA)) represent viable performance options. However, accounting-based measures are more appropriate for OA performance (Devinney et al., 2010). They represent the outcome of managerial decisions while market measures, such as TSR, are subject to fads, irrational exuberance, and panics that have little to do with the quality of the business strategy, management insight, or organization designs that result in performance, especially in the short run. Similarly, industry benchmarks based on accounting measures reflect a more relevant competitive standard (Zhang, 2006; McGahan, 1999) compared to broader market measures of shareholder return.

The time horizon of OA performance measures is equally important. While short-term, above average industry metrics support inferences of good performance, OA outcomes are more accurately reflected in *sustained* measures that are consistently above the industry average (e.g., more than 75% of the time). A longer time horizon acknowledges the challenge of organization change and emphasizes the basic intent of OA, which is to implement changes that respond to or anticipate environmental change.

Given this performance logic, goals of "maximizing" OA performance (i.e., attempting to produce outcomes that are significantly above industry averages) are incompatible with the concept of OA presented in the causal model. A maximizing goal indicates a resource allocation pattern and an emphasis on exploitation that over-commits to a particular strategy and leads to difficult-to-disrupt inertia. This is the risk and challenge of OA. It commits to performance objectives that are "good enough" (i.e., above average) in exchange for maintaining sufficient agility to sustain that level of performance.

Ambidextrous Strategic Orientation

An ASO comprises two configurations and integrating mechanisms that define an agile organization's exploration and exploitation capacity. Table 1 displays these strategy and organization design features. For clarity, a single business organization is described; large, complex organizations may have multiple exploit configurations, each representing a different business, region, or customer. The explore and exploit configurations each have their own dynamics reflecting different strategies and organization designs.

Table 1: Features of an Ambidextrous Strategic Orientation

	Strategy	Organization Design
Explore Configuration	• Goal: Steward an identity to guide long-term organization development • Strategy: Entrepreneurial and engagement-driven	• Work routines underpin a foresight/insight capacity that creates potential long-term value • External and internal networks composed of multi-stakeholder project teams with clear accountabilities that focus attention and resources on value-added work • Incentives are tied to both outcomes and learning
Exploit Configuration	• Goal: Create a temporary differentiated competitive advantage • Strategy: Flexible (strategic variety, differentiators, and aggressiveness) and robust	• Work routines, structures, and management processes are fit for purpose, flexible, and timely; they reflect an enabled bureaucracy. • Cross-functional teams populate coordinated networks in a customer-centric structure. • Shared, short-term objectives focus on capability execution and continuous improvement. • Learning (continuous improvement) is facilitated by transparent information and rewards for improvement, results, and skill/knowledge application
Integrating Mechanisms	• Shared resources & routines	• Absorptive capacity • Leadership balance

The explore configuration stewards an overall organization identity or a collective sense of "who we are" (Albert & Whetten, 1985) to guide organization development and short-term change. It also comprises an entrepreneurial and engagement-driven enterprise strategy and an organic organization design (Burns & Stalker, 1961). The exploit configuration includes a flexible and robust business strategy and an enabling-bureaucracy organization design (Adler &

Borys, 1996) that create a temporary competitive advantage. The two configurations are "structurally separated" (Duncan, 1976) in terms of goals, activities, and time horizons (Lawrence & Lorsch, 1967). However, the exploit configuration is "conditionally autonomous" (Thompson, 1967) on the explore configuration, which sets the context for its functioning.

An ASO is intended to challenge the pull of inertia and upend conventional organization design assumptions that emphasize alignment and efficiency (Galbraith, 1995; Miller, 1990). Rather than optimize for efficiency and accept that intermittent and substantive change is necessary (Tushman & Romanelli, 1985), an ASO differentiates explore from exploit activities and optimizes for change. Repeatability and commitment are recognized as sources of advantage and value capture (Ghemawat, 1991). Yet, efficiency is sacrificed for flexibility, so organization change leads to sustained rather than only short-term, above-average performance.

The explore configuration. The explore configuration involves continuously surveying the environment, organizing innovative activities, and engaging stakeholders to keep the organization prepared for change. It identifies potential strategic changes and captures learning from performance outcomes. The explore configuration also defines, operationalizes, and activates the dynamic capabilities required to sustain performance as the circumstances demand.

A distinct and enduring organization identity plays a central role in orchestrating change. Identity emerges through repeated cycles of strategy implementation and learning from the results (Albert & Whetten, 1985; Andrews, 1971). It symbolizes how the organization has historically interacted with stakeholders and the competitive environment and how it will likely do so in the future (Barry & Elmes, 1997; Rindova & Fombrun, 1999; Gioia at al., 2013). It promotes changes that are consistent with "who we are" as an organization, thus increasing the

likelihood that they will be adopted (Dutton & Dukerich, 1991; Worley & Beaujolin, 2023; Ravasi & Phillips, 2011).

Senior leadership is responsible for ensuring that organization identity does not overly constrain strategic change (Christensen, 2013). Although organization identity is enduring, it may need to evolve in dynamic and uncertain environments where past values and learning could conflict with emerging realities and opportunities (Gioia et al., 2013; Laurila & Paalumäki, 2022). This may involve challenging the status quo and reframing organization identity based on learning from performance outcomes and vigilant environmental scrutiny (Hatch & Schultz, 2002). Consequently, organization identity is likely to "retain its coherence and provide a sense of continuity" (Gioia et al., 2013: 140), even as it evolves.

Enterprise strategy in the explore configuration is entrepreneurial and engagement driven. These complimentary approaches explore possible futures, experiment with how to achieve them, and learn from the outcomes. Entrepreneurship encourages organization members to be curious about the future, proactively search for innovative ways to address economic, social, and environmental opportunities, and challenge the status quo to keep the organization aware and ready for change (Murray, 1984; Hitt et al., 2001). The engagement dimension of enterprise strategy recognizes that an organization is situated in an evolving inter-organizational network (Freeman, 1984). It promotes collaborative activities among ecosystem members to make strategic decisions and develop novel solutions that contribute to organization and network performance (Leonidou et al., 2020). Both entrepreneurial and engagement-driven approaches to strategy support learning that may involve small experiments confined in risk and scope, or larger initiatives that involve the exploit configuration and generate performance feedback.

Organization design in the explore configuration is organic, providing a flexible and decentralized structure for entrepreneurial and engaged behavior (Burns & Stalker, 1961). Work routines include sensing/perceiving (Teece et al., 2016; Worley et al., 2014), collaborating and networking (Huxham and Vangen, 2013), and open innovation (Chesbrough, 2003). They contribute to a foresight/insight capacity that generates real (Trigeorgis & Reuer, 2017) and ex ante (Peteraf, 1993) strategic options, which contribute to the explore configuration's capacity for change (Zahra et al., 2006). Along these lines, the explore configuration's organization structure is likely to be a flexible and re-configurable network of multi-functional and multi-stakeholder teams (Whittington et al., 1999; Mohrman et al., 1995). Team roles and responsibilities keep work routines and attentiveness focused on ongoing goals and outcomes and the competitive environment. Reward systems are contingent on performance outcomes as well as learning from team development and engagement with the environment.

The exploit configuration. The exploit configuration involves creating a temporary competitive advantage. Guided by organization identity, it includes a flexible and robust business strategy (Hofer & Schendel, 1978) that defines a set of ordinary capabilities. They are operationalized by an enabling-bureaucracy (Adler & Borys, 1996) organization design.

A *flexible* business strategy can adjust the organization's strategic variety (Prahalad & Bettis, 1986; Carroll, 1984) or the range and depth of commitments to product/service lines, geographies, markets/customers, distribution channels, and technologies. It can change the level of risk, urgency, and aggressiveness in pursuing growth, market development, or financial resource allocation patterns (Fombrun & Ginsberg, 1990) as well as the product and service dimensions that differentiate the firm's offerings (Hambrick & Fredrickson, 2005). A *robust* business strategy is effective across multiple situations and conditions and keeps the number of changes to strategy as low as possible (Conz & Magnani, 2020). For example, low-cost,

differentiated, prospector, and analyzer strategies can be effective across different environments and life-cycle stages (Miles & Snow, 1978; Porter, 1980).

Organization design in the exploit configuration is an enabling-bureaucracy (Adler & Borys, 1996) that balances efficiency with flexibility and timeliness. Organization design elements are co-specialized to be efficient and fit for purpose (Sambamurthy et al., 2003; Teece, 2007). Work routines, including market development, product/service delivery, and after-sales support, deliver value to customers. They are complemented by structures and work designs that focus attention and resources on them, and learning processes that promote continuous improvement or "plan-do-check-act" logics.

Timely and flexible organization features challenge the inertia and stability inherent in efficient operations (Worley et al., 2016; Felin & Powell, 2016). Timely design elements include goal setting, product/performance reviews, and incentive cycles that match the rhythm of the marketplace. They can be shortened by "…purposefully simple…although not completely unstructured" practices (Eisenhardt & Martin, 2000: 1116). Quicker "clock speeds" develop when information is widely shared and transparent (Galbraith, 2014), and decision-rights frameworks clarify roles while preventing the process from getting "bogged down" (Doz & Kosonen, 2010). Flexible organization design features support customer outcomes and effectiveness (Brown & Eisenhart, 1998) more than processes, plans, and schedules that reinforce efficiency yet distract from innovation or strategy execution (Barari & Pop-Iliev, 2009; Hachani, et al., 2013). Incentives related to understanding customers and executing capabilities well, in addition to operating efficiently, support flexibility.

> Proposition 1a: *The more effectively the explore configuration promulgates organization identity and creates viable future options, the better it guides the execution and development of the exploit configuration.*

Integrating mechanisms. Integrative mechanisms coordinate the two configurations, contribute to innovation and efficiency by identifying shared resources and routines, and mitigate "not invented here" dynamics. Integration can result from identifying and sharing the resources or capabilities that both configurations draw on for success (Govindarajan & Trimble, 2005). For example, the exploit configuration's detailed attention to customer information can be shared with the explore configuration's sensing/perceiving routines. In turn, the explore configuration can convey strategic scenarios with the exploit configuration to prepare it for change. These transparent and two-way information flows can mitigate cross-configuration differences and provide a check against the "innovator's dilemma" (Christensen, 2013; O'Reilly & Tushman, 2008), allowing members to see current customer demand in the context of long-term trends. In addition, liaison roles and talent rotation policies can enable members to experience different configurational demands, and respected social network influencers and connectors can use informal communication networks to share their knowledge (Arena, 2018; Cross et al., 2019). Shared resources and a flexible resource allocation system work together to move management attention, people, and budgets to their best use (Hope & Fraser, 2000).

Coordination and integration between the two configurations can also be supported by absorptive capacity that recognizes, assimilates, and commercializes information (Cohen & Levinthal, 1990). An ASO describes how an organization approaches exploration *and* exploitation; absorptive capacity represents the ability to move *from* exploration *to* exploitation. For example, the explore configuration captures new and future-focused information and develops innovative products/services, which it can process and pass on to the exploit configuration for application. Leaders can facilitate this process through "opening" behaviors that encourage new and innovative activities, "closing" behaviors that promote implementation,

and "communication" behaviors that explain the different roles and contributions of the two configurations (Zacher & Rosing, 2015).

> Proposition 1b: *The more effective the ASO's integrating mechanisms, the better its change capacity can achieve both explore and exploit objectives.*

Ordinary and Dynamic Capabilities

The second component of an agile organization is a set of ordinary and dynamic capabilities. The former supports above-average performance and the latter changes ordinary capabilities to take advantage of emergent opportunities. As shown in Figure 1, an ASO's exploit and explore configurations define and operationalize ordinary and dynamic capabilities, respectively. Capabilities are key to the success of both enterprise and business strategies. They are more technically and socially complex than standard work routines (Parmigiani & Howard-Grenville, 2011; Becker, 2004; Winter, 2003), and comprise a "collection of routines that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type" (Winter, 2003: 991).

Ordinary capabilities convert advantage into performance. Because they effectively produce and market relatively stable product and service offerings in a repeatable manner, they enable an organization to "earn a living" (Winter, 2003). The type, nature, and number of ordinary capabilities are determined by the exploit configuration's business strategy in line with the organization's identity, competitive context, and resource base. A business strategy high in strategic variety, for instance, requires a broad number and different types of ordinary capabilities to address multiple customers, markets, and products.

To do more than "earn a living" – to produce above average performance – business strategies need to define a subset of "differentiated" ordinary capabilities. These "strategic assets" (Amit & Schoemaker, 1993) generate revenue, lower costs, or conduct key activities

better than the competition to attract customers, bundle products/ services into solutions, or acquire specialized resources. Differentiated ordinary capabilities that are competitively advantageous (i.e., valuable, rare, inimitable, and non-substitutable (VRIN)) produce above-average performance (Amit & Schoemaker, 1993; Teece, 2014).

The exploit configuration's organization design operationalizes ordinary capabilities (Schriber and Löwstedt, 2020; Teece et al., 1997). Gaining customers, for example, requires work routines that identify potential buyers, structures and processes to perform those tasks, and rewards to reinforce appropriate behavior. Traditional organization designs are proficient at building ordinary capabilities fit for purpose and efficiency. An exploit configuration's enabling-bureaucracy design also is adept at operationalizing ordinary capabilities that are timely and flexible. Because differentiated ordinary capabilities produce above-average performance, an overriding hazard for agile organizations is over-commitment to a business strategy and organization design that create the differentiated ordinary capabilities needed to produce above-average performance but at a cost of excessive inertia.

> Proposition 2a: *The more effective (i.e., robust, fit, flexible) an agile organization's exploit configuration, the better it can develop and operationalize the differential ordinary capabilities required for above-average performance.*

An ASO's explore configuration defines and operationalizes an agile organization's dynamic capabilities — "systematic patterns of organizational activity aimed at the generation and adaptation of operating routines" (Zollo & Winter, 2002: 348). Dynamic capabilities change ordinary capabilities (Rindova & Kotha, 2001), and because ordinary capabilities are defined and operationalized by the exploit configuration's business strategy and organization design, dynamic capabilities involve two corresponding change functions– strategizing and restructuring – that are invariant across organizations (Eisenhardt & Martin, 2000; Teece, 2014; Worley et al.,

2014). Strategizing dynamic capabilities (Slater et al., 2006; Worley et al., 2014; Doz, 2020) effect timely change in the exploit configuration's business strategy and define the required ordinary capabilities, especially the differentiated ordinary capabilities that produce above average performance. Restructuring dynamic capabilities change the exploit configuration's organization design that operationalizes the ordinary capabilities.

> Proposition 2b: *The more effective an agile organization's explore configuration, the better it can develop and operationalize strategizing and restructuring dynamic capabilities.*

Strategizing and restructuring dynamic capabilities are multiplicatively related and represent a formidable change capability. They serve to coordinate changes in the exploit configuration's business strategy and organization design with changes in its ordinary capabilities (Teece et al., 2016). An agile organization with both types of dynamic capabilities can make complex changes repeatedly. This dual change function integrates OA perspectives that emphasize the strategizing role of dynamic capabilities as the *sine qua non* of agility (Doz & Kosonen, 2010; Singh et al., 2013) with those that focus on the restructuring role of dynamic capabilities (Teece, et al., 2016; Baškarada & Koronios, 2018). When strategy changes are prevalent, agility frameworks that neglect strategizing dynamic capabilities define a flexible organization not an agile one (van Oosterhout et al., 2006). Similarly, dynamic capabilities aimed at restructuring can change ordinary capabilities, but they cannot define them, which is the role of business strategy.

> Proposition 2c: *An organization with both strategizing and restructuring dynamic capabilities is more agile than an organization with only one of those capabilities.*

> Proposition 2d: *Agile organizations with effective strategizing and restructuring dynamic capabilities can change their ordinary capabilities and the exploit configuration's business strategy and organization design in a timely manner.*

The Resource Base

An agile organization's resource base is an important input to its ASO and capabilities. It provides the essential assets, knowledge, and expertise to create effective routines, structures, and capabilities (Sirmon, et al., 2007). Slack and flexible resources support organization change capacity in different ways (Sanchez, 1995). Slack resources—excess, unencumbered, or uncommitted resources—can assist strategic change, buffer the organization from environmental disruption, or be eliminated to increase efficiency. Slack resources that support dynamic capabilities, for example, may lie dormant because the exploit configuration and ordinary capabilities are functioning well in producing above-average performance. Agile organizations tend to carry slack resources in support of change, even at the cost of efficiency. Flexible resources, on the other hand, are adaptable to changing conditions. They can be reassigned to a different use, such as when a multi-skilled workforce switches from innovative to execution activities when needed (Adler et al., 1999; Gibson & Birkinshaw, 2004).

Specialized and sticky resources have specific uses and once acquired can be difficult to divest or apply to other circumstances. For agile organizations, irreversible commitments to specialized and sticky resources, such as a unique technology or dedicated work technique, can be an important source of performance but a cause of inertia.

> Proposition 3a: *Slack and flexible resources contribute to an ASO's change capacity; specialized and sticky resources diminish it.*

Resources also can be competitively advantageous (i.e., VRIN) or commodity-like. VRIN resources support differentiated ordinary capabilities and contribute to above-average performance. Commodity (non-VRIN) resources or those with only some VRIN properties, such as cash and IT systems, support various essential work routines or ordinary capabilities that

confer the "right to operate" or allow the organization to function without significant cost or productivity disadvantages but may not contribute to above average performance.

> Proposition 3b*: VRIN resources support the effectiveness and distinctiveness of an agile organization's ASO and capabilities.*

Agility Affects Performance

Together with the exploit configuration, the ordinary capabilities of agile organizations – and especially the differentiated ordinary capabilities – directly produce above average performance outcomes by making and selling a relatively stable set of products and services better than the competition (Winter, 2003; Hansen & Wernerfelt, 1989).

> Proposition 4a: *An agile organization produces above-average performance when its exploit configuration and differentiated ordinary capabilities repeatedly make and sell a consistent set of products and services better than its competitors.*

Effective agile organizations can repeatedly implement the changes necessary to sustain above average performance. A single successful change and its performance outcome are more likely the result of "brilliant improvisation" or successful "*ad hoc* problem-solving" (Winter, 2003) than agility; it is unlikely to result in sustained performance in any but the most stable environments. Dynamic capabilities indirectly affect performance outcomes through repeated orchestration of relevant and timely changes to ordinary capabilities and the exploit configuration that defines and operationalizes them. The magnitude of these changes tends to exceed the levels of continuous improvement routines in the exploit configuration (van Oosterhout et al., 2006).

> Proposition 4b: *The more effective and timely dynamic capabilities change an agile organization's exploit configuration and ordinary capabilities, the more above-average performance is likely to be sustained.*

The causal model proposes that the VUCA properties of the environment moderate the relationship between the agile organization and its performance effects (Schilke, 2014). When

the environment has relatively low levels of VUCA, the organization can sustain above-average performance when its exploit configuration and ordinary capabilities persist in operating well. In essence, the organization does not need to draw on its agile properties. As environmental VUCA increases, agile organizations need to increasingly apply their dynamic capabilities to change ordinary capabilities to produce above-average performance. Thus, agile organizations achieve their purest form in highly dynamic and uncertain environments.

> Proposition 4c: *The higher the environmental VUCA, the greater an agile organization needs to draw on its dynamic capabilities to change its exploit configuration and ordinary capabilities to produce above-average performance.*

Performance Feedback Effects Learning

Feedback from performance outcomes informs learning processes that initiate necessary change and improve OA. Below-average performance or sudden declines in performance can signal a likely misfit among the organization's resource base, exploit configuration, ordinary capabilities, and the demands of the environment (Tushman & Romanelli, 1985; Sarta et al., 2021). They raise questions about organization effectiveness and what adjustments and learning in the agile organization, if any, are needed. This feedback-adjustment process is conducted in the ASO's exploit and explore configurations, although the learning methods differ qualitatively between them.

The exploit configuration creates and guides the organization's ordinary capabilities and consequently is most immediate in detecting, diagnosing, and correcting performance problems. Here, performance feedback and adjustment processes are likely to resemble continuous-improvement practices. For example, business strategy is likely to address how the organization can create more powerful and effective differentiated capabilities. Changes in revenues, costs, or stakeholder metrics can often be traced back to the features of the exploit configuration's organization design, such as work routines and process structures.

In the explore configuration, senior leaders, guided by organization identity, seek to discover the longer-term direction of organization performance metrics, environmental change, and agile functioning. They combine performance feedback with foresight/insight data to inform decisions about if, when, and how to activate dynamic capabilities. More radically, they may consider necessary changes in the organization's enterprise strategy and organic organization design. They may ask questions such as: Do performance and/or environmental changes represent a true surprise or are they within the parameters of existing scenarios? Is the organization missing key resources crucial to change capacity or capability? Is the current exploit configuration sufficiently robust to make necessary and appropriate changes to ordinary capabilities without activating dynamic capabilities? These reflective inquiries assess the ASO's capacity, how well ordinary capabilities have operated, and how exploit business strategies and organization designs can be improved.

The ASO's integrating mechanisms help to ensure that key stakeholders from the explore and exploit configurations share this learning process. Conversations between leaders of the two configurations can identify the underlying causes of performance problems and decide what to do about them. For example, they may decide to stay the course recognizing that the current enterprise and business strategies are sufficiently robust but require a different implementation. Accordingly, dynamic capabilities redefine the differentiated ordinary capabilities and operationalize them in the exploit organization design. The subsequent change and learning processes are entrusted to leaders of the exploit configuration and their continuous improvement processes.

> Proposition 5: *The more effective and timelier an agile organization's diagnostic learning processes, the better it can respond to performance feedback to adjust and improve its agile capacity and capability.*

DISCUSSION

Our causal model provides a conceptual foundation for future OA research and practice. In line with our theory analysis and model development, we discuss how the model differs from prior frameworks, how it extends existing OA theory, and our contributions to OA theory. We propose future research directions as well as relevant limitations of our theorizing.

Contributions

First, the dependent variable in our OA model, *sustained* performance above a relevant benchmark, explicitly acknowledges the time element associated with any organization change phenomenon. Superior performance at a point in time or short-term improvements in performance are insufficient evidence of agility effects and are open to a variety of alternative explanations including luck and brilliant improvisation, among others. Theories that emphasize short-term OA performance suggest a direct relationship between capability and performance that overlooks the mediating influence of effective organization change. Sustained performance, on the other hand, results from a change capability that implements organization changes repeatedly, in contrast to performance that emanates from a relatively invariant strategy, organization design, or set of resources. In sum, organization change, not stability, drives sustained performance and reflects Eisenhardt & Martin's (2000) view that long-term competitive advantage does not depend directly on dynamic capabilities but on the resource configurations (i.e., the exploit configuration) they create.

Second, our causal model not only integrates various OA perspectives, but it also differentiates OA from adaptability, flexibility, and transformation theories that tend to treat change more as an episodic event than a repeated, continuous, and learned activity. OA involves multiple sets of changes over time as well as above average performance and the capacity and capability to implement change. When performance feedback, environmental change, or

entrepreneurial insight suggest the need to change, strategizing and restructuring dynamic capabilities effect repeated changes in ordinary capabilities and the exploit configuration that guides and structures them (Tushman & Romanelli, 1985; Andrews, 1971).

Third, current ambidexterity and dynamic capability frameworks make important contributions to OA theory but represent only partial views of the phenomenon. Ambidexterity alone is not agility. It describes an organization's architectural capacity for managing conflicting exploit/explore objectives but lacks the ability to effect substantive change in that potential. Similarly, dynamic capabilities alone are not agility. They represent the ability to change configurations, resources, and ordinary capabilities, but lack the guidance provided by organization identity and enterprise strategy.

Fourth, our model questions current OA models' focus on speed of change as essential in dynamic and uncertain environments. Consistent with Prange (2021), speed is not a necessary component of agility; rather, it involves being prepared and organized to make timely change. In contrast to punctuated equilibrium, for example, OA does not require that change happen in a systemic, rapid, and discontinuous fashion, only that it is timely and sufficient. Our model focuses on foresight/insight, learning, and management processes that activate dynamic capabilities "sooner, more astutely, and more fortuitously" (Eisenhardt and Martin, 2000).

Fifth, the agile organization portrayed in Figure 1 excels at orchestrating change. Organization identity provides essential strategic guidance to OA (Teece et al., 2016), reducing the risk that the organization will change for change's sake, be whipsawed by fads, or be subject to executive ambition. Identity initially focuses enterprise strategy and organization design on trends, innovations, and stakeholder relationships. It frames proposed changes consistent with "who we are," and then directs and guides strategizing and restructuring dynamic capabilities to

orchestrate necessary changes in the exploit configuration and its ordinary capabilities. These changes are higher in magnitude than the normal levels of change and flexibility in the exploit configuration (van Oosterhout et al., 2006) but they are unlikely to rise to the scale of the periodic changes depicted in episodic models of organization change.

Last, our causal model clarifies conceptual ambiguities about OA and suggests a more coherent definition of OA as *a learned capability to repeatedly orchestrate timely and sufficient change in the organization's differentiated ordinary capabilities – and their attendant business strategy and organization design – that sustain above average performance. It is guided by the organization's identity, implemented by its dynamic capabilities, and supported by its resources.*

Future Research Directions

Our OA model requires conceptual refinement and empirical assessment. It suggests important directions for OA research going forward, including development of valid and reliable measures of agility and repeated change as well as tests of the causal relationships in the model. In all cases, studies of the repeatable OA processes, relationships, and performance outcomes call for longitudinal research designs that permit strong causal inference.

Comprehensive and integrated measures are needed to assess the model's multi-dimensional features. OA is evidenced by sustained above average performance, multiple sets of implemented changes that sustain such performance, and the capacity and capability to orchestrate these changes. Empirical assessment of these variables and relationships requires measures of multiple changes in differentiated ordinary capabilities and their attendant strategy and design features. Credible measures of strategy and organization design are available (e.g., Fombrun & Ginsberg, 1990; Romanelli & Tushman, 1994) but assessment of organization change and capability effectiveness are less common. Survey measures of these attributes are likely prone to subjectivity and retrospective bias. For example, self-reported claims of having

specific ordinary or dynamic capabilities tend to lack verification and do not confirm whether the capabilities are performed well. Research that indicates the presence of a capability and performance outcome does not necessarily account for the capability's effective execution or the successful implementation of change. Longitudinal case studies can describe organization change in the short to medium term but longer term, rigorous event histories based on published cases and archival data could help to depict multiple changes (Mirvis et al., 2021).

Similarly, measures of change capacity and capability are essential to assess whether repeated organization changes and sustained performance are the result of luck or managerial competence. Current survey measures of agile capacity and capability (e.g., Charbonnier-Voirin, 2011; Worley et al., 2014; Aghina et al., 2015) likely reflect at least one of the measurement biases identified previously. Yet, OA measures could benefit from capturing the perceptions of an organization's senior leaders, competitors, and analysts. Despite potential biases, these stakeholders have an intimate knowledge of the organization's strategies, resources, and capabilities. Multiple surveys of a single organization would enable measures of agreement that can support or negate the validity of such ratings. These survey measures could be triangulated with observational and archival data to operationalize and verify an organization's change capacity and capability. They can also contribute to effective long-term assessments of change in an organization's OA capability.

In addition to valid and reliable measures, tests of the causal relationships in our model are needed to assess its fundamental soundness. The proposition that successful organization change mediates the change capability and performance relationship follows Eisenhardt and Martin's (2000) observation that long-term competitive advantage does not depend directly on dynamic capabilities but indirectly through the resource configurations they create. This causal

relationship has received empirical support in cross-sectional survey studies (Daspit et al., 2016; Protogerou et al., 2012), but has not been assessed with longitudinal research using objective performance measures. Our model proposes that sustained performance is not the result of a competitively advantageous and unchanging strategy, design, or set of resources but stems from a specific set of organization changes. This proposition could be tested by comparing the direct and cross-sectional effects of ASO, resources, and ordinary capabilities on short-term performance with the longitudinal and indirect effects of dynamic capabilities on long-term performance operating through changes in the exploit configuration and ordinary capabilities.

Similarly, our model proposes that organization identity provides an overall frame to guide organization change. However, research has rarely specified or explicitly characterized an organization's identity. Rather, attention has been directed at the definition and formation of organization identity, the relationship between identity and strategy (Ravasi et al., 2020), and how identity referents and claims facilitate change and under what conditions (Laurila & Paalumäki, 2022; Gioia et al., 2013; Corley, 2004). To effectively guide change, organization identity must be sufficiently explicit for organization members to assess whether a proposed change is (or is not) consistent with "who we are." Longitudinal field studies could explicitly describe and measure an organization's identity and then observe change processes. Change proposals consistent with the organization's identity are more likely to be implemented than proposals that conflict with it. Future research also could address whether an organization's identity can retain its coherence in terms of "who we are," even as the organization changes "what it does" or "how it does it." This would enable assessing if organizations with a strong and enduring identity are able to implement repeated change in their differentiated ordinary

capabilities more successfully than organizations where the identity does not have those properties.

Limitations

Development of our OA model involved integrating several theory streams from strategic management, organization capability, ambidexterity, organization design, and firm performance. Like all theory building, we might have discounted or overlooked altogether important nuances in these relevant theories. Our future research suggestions are aimed at uncovering some of those nuances and building a more complete OA theory.

Like other agility frameworks, our causal model focuses on how agile organizations are designed and how the OA capability operates. Although it addresses how organizations learn to improve their change capacity and capability, the model leaves open the question of how organizations become agile in the first place. The challenges of transforming traditional, bureaucratic organizations into agile ones remain an important theoretical and practical issue (Worley & Beaujolin, 2023; Kanitz et al., 2022).

Our model's emphasis on repeated, identity guided, and orchestrated change represents an important boundary condition for its application to OA. It may not apply to start-ups and very young organizations. An organization must have sufficient experience to have formed an identity. While it might be convenient to address the "agile" moves that start-ups make to pivot their strategy or respond to a crisis, it is inaccurate to label them OA; they are likely an example of "brilliant improvisation" (Winter, 2003).

CONCLUSION

The OA model and definition presented here are a phase in the evolution of our understanding of organizational change and adaptation (Shereihy et al., 2007). Early organization adaptation research extended the static propositions of contingency theory to a dynamic context as the pace of environmental change increased (Sarta et al., 2021; Chakravarthy, 1982). Similarly, as our understanding of strategy, organization design, and dynamic capabilities has grown, their integration into a coherent framework describing how OA differs from other types of organization change, how it is managed and developed, and how it sustains performance is an important step forward on that theoretical journey.

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Table 1: Features of an Ambidextrous Strategic Orientation

	Strategy	Organization Design
Explore Configuration	• Goal: Steward an identity to guide long-term organization development • Strategy: Entrepreneurial and engagement-driven	• Work routines underpin a foresight/insight capacity that creates potential long-term value • External and internal networks composed of multi-stakeholder project teams with clear accountabilities that focus attention and resources on value-added work • Incentives are tied to both outcomes and learning
Exploit Configuration	• Goal: Create a temporary differentiated competitive advantage • Strategy: Flexible (strategic variety, differentiators, and aggressiveness) and robust	• Work routines, structures, and management processes are fit for purpose, flexible, and timely; they reflect an enabled bureaucracy. • Cross-functional teams populate coordinated networks in a customer-centric structure. • Shared, short-term objectives focus on capability execution and continuous improvement. • Learning (continuous improvement) is facilitated by transparent information and rewards for improvement, results, and skill/knowledge application
Integrating Mechanisms	• Shared resources & routines	• Absorptive capacity • Leadership balance

Figure 1: A Causal Model of Organization Agility