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Kathleen M. Eisenhardt, Christopher B. Bingham

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Superior Strategy in Entrepreneurial Settings: Thinking, Doing, and the Logic of Opportunity

Kathleen M. Eisenhardt,[a] Christopher B. Bingham[b]

[a] School of Engineering, Stanford University, Stanford, California 94305; [b] Kenan-Flagler Business School, University of North Carolina, Chapel Hill, North Carolina 27599

Contact: kme@stanford.edu (KME); cbingham@unc.edu, http://orcid.org/0000-0001-9047-9913 (CBB)

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Abstract. Our purpose is to develop a perspective on how executives form superior strategies in entrepreneurial settings. Understanding how executives achieve such strategies is theoretically intriguing because it pushes beyond the boundary conditions of the traditional strategic logics of position and leverage to the less-understood opportunity logic where advantage is precarious and often short-lived. Understanding how executives form superior strategies in entrepreneurial settings is also practically relevant. Strategically successful firms in these settings like Apple, Facebook, and Dropbox are primary motors for economic growth, but their strategists are challenged by the "high velocity" of their markets and opportunities. Our perspective combines two intertwined themes: (1) broad view of the strategic playing field enabling better visibility and understanding of opportunities (thinking) and (2) action within structures organized at the "edge of chaos" enabling flexible yet efficient capture of opportunities (doing). We describe these themes and opportunity logic and then contrast them with traditional strategic logics like positioning and resource leverage.

Keywords: strategy formation • nascent markets • opportunity logic • entrepreneurship • organizational learning • simple rules • managerial cognition • experimentation • economic games

1. Introduction

In late 2007, Brian Chesky and Joe Gebbia opened their apartment to three strangers who were attending a convention in pricey San Francisco. The friends provided their guests with air mattresses and breakfast in return for much needed cash (Tame 2011). From the success of this exchange, Chesky and Gebbia recognized the promising business opportunity to connect travelers and hosts that became Airbnb. But while Airbnb is now a star, its strategy was not immediately clear. It took significant thought and effort by the founders to move from a promising business opportunity to uncovering the right product features, attracting hosts, and ultimately forming a winning strategy. In early 2010, they finally gained traction with the strategy that would propel Airbnb's runaway success (Hempel 2012).

As the Airbnb vignette suggests, spotting an opportunity is a long way from forming a superior strategy. Yet forming a superior strategy is fundamental to why some firms in entrepreneurial settings succeed and others do not. By *strategy,* we mean the set of interdependent activities by which firms attempt to create and capture value (Porter 1996). More simply, strategy is how firms attempt to win. By *entrepreneurial settings*, we mean the context of entrepreneurial firms (i.e., young firms competing in nascent or growth markets) and of established firms competing in these markets or with innovation-driven strategies (Ott et al. 2017).

Forming strategy in entrepreneurial settings is challenging. On the one hand, executives must form novel, advantageous strategies. Yet the "high-velocity" (i.e., ambiguous, unpredictable, and fast-pace) of these markets limits planning, and so favors "strategy by doing" in which action and adaptation are central. On the other hand, executives must also form strategies that combine individual activities like product innovation and logistics into a complex and coherent activity system such that these activities, which comprise the strategy, fit together. This favors "strategy by thinking" in which strategists develop a holistic understanding of their strategy and its underlying logic (Ott et al. 2017).

Our purpose is to develop a theoretical perspective on the origin of superior strategies in entrepreneurial settings. Understanding how executives achieve such strategies is theoretically intriguing because it pushes beyond the boundary conditions of the traditional strategic logics of position and leverage to the less-understood opportunity logic where competitive advantage is unpredictable and often short-lived (Bingham and Eisenhardt 2008, Davis et al. 2009). Understanding how executives originate superior strategies in entrepreneurial settings is also practically relevant. Strategically successful firms in these settings like Apple, Facebook, Airbnb, and Google are primary motors for economic growth. Yet, strategists

in entrepreneurial settings are challenged by the "high velocity" of these markets and opportunities.

We rely on our research base of over 15 empirical studies conducted with superb colleagues (many Stanford Technology Ventures Program alumni) as well as the research of others and well-known exemplars. Unlike many organization theory-based lenses like evolutionary and network theories, our perspective is inherently *strategic*—i.e., it assumes at least some entrepreneurial agency and privileges performance. Unlike traditional strategy theories like positioning and resource-based view, our perspective assumes *nascent and growth markets*—i.e., high-velocity environments characterized by ambiguity, fast pace, and unpredictability (Eisenhardt 1989). In these markets, there is typically instability and confusion about fundamental features like industry architecture, business models, products, and customers (Santos and Eisenhardt 2009). Finally, our perspective assumes that competitive advantage is *unpredictable*, and *growth* is the primary performance outcome, contrasting with positioning's emphasis on profitability, for example.[1]

Overall, our perspective on forming superior strategy builds on opportunity logic: How firms capture attractive opportunities in entrepreneurial settings sooner, faster, and better than others (Bingham and Eisenhardt 2008). Since the neat bifurcation between strategy and implementation disappears in entrepreneurial settings, we argue that successful strategy is about fusing thinking and doing. So, much like winning coaches in fluid sports like basketball and soccer, superior strategists have a broad view of the strategic playing field and thinly structured playbooks with an action emphasis. Specifically, our perspective combines two intertwined themes: (1) broad view of the strategic playing field enabling better visibility and understanding of opportunities (thinking) and (2) action within structures organized at the "edge of chaos" enabling flexible yet efficient capture of opportunities (doing) (Table 1).[2]

2. Thinking: Broad View of the Strategic Playing Field

Our first theme is that executives who form superior strategies in entrepreneurial settings have a broad view of the strategic playing field. That is, they conceptualize strategy and the related relationships among firms beyond the boundaries of their own firm. So much like point guards in basketball and midfielders in soccer, these strategists have a more expansive view of their strategic playing field, deep understanding of their game, and insight into the roles of different types of players. In so doing, they focus their attention broadly on substitutes, complementors, buyers, and suppliers, not just on rivals. They also recognize the value of alliances and acquisitions to shape the playing field to their advantage, not just as ways to gain resources. More deeply, superior strategists understand the underlying economics of their game, and so organize to take actions that exploit this understanding (Table 1).

McDonald and Eisenhardt (2017) provide an excellent example of this theme. They studied six entrepreneurial firms that began in 2007 in the social investing market. At that time, social investing was a nascent market in which entrepreneurs sought to marry social networks with personal investing. These entrepreneurs saw an opportunity to build a social network of amateur investors who could share tips, bypass expensive wealth advisors like UBS, and prosper. The superior strategists took a broad view of their market that recognized a variety of players, including substitutes as the key opponent. Moreover, these same strategists mostly ignored their immediate social investing rivals and instead engaged in what the authors termed *parallel play*. That is, like parallel play by toddlers, the superior strategists sometimes copied their rivals and occasionally worked with them, but mostly they ignored their rivals. Their reasoning was that these immediate social investing rivals were not a threat. Instead, these rivals were sources of ideas (e.g., clever user interface, useful product features) that they could copy and in doing so, save time and resources. So, rather than differentiate from rivals, they imitated them. In contrast, the less successful strategists had a narrower view of the industry such that they largely ignored other types of firms including substitutes (center of attention for superior strategists) and instead emphasized active differentiation (not imitation) from their social investing rivals. So, they focused on the wrong opponents while spending more resources and time in pursuit of differentiation from their rivals.

Armed with a *broad* view of the strategic playing field, superior strategists often *shape the strategic playing field*. A telling example is from Santos and Eisenhardt (2009). They studied five firms that started in different nascent markets (e.g., physical product, software, two-sided marketplace) and founding conditions (e.g., single entrepreneur, business-plan driven, technology in search of a business). Despite mistakes, all of these firms eventually became stars of the Internet boom era. A common denominator was that the executives at each venture shaped their industry architecture (i.e., strategic playing field) much more aggressively than did other entrepreneurs.

These superior strategists shaped their strategic playing field in several ways. One way was to approach established firms that might see themselves as competitors in the nascent market, and then co-opt them to take other roles like complementer, buyer, or supplier (Santos and Eisenhardt 2009). To succeed, these

Table 1. Superior Strategy in Entrepreneurial Settings

Activity	Take a broad view of the field	Understand economics of game	Identify bottlenecks	Resolve bottlenecks	Update learning	Structure at edge of chaos
Questions for strategists	• Who are the players? • What are relationships among them? • How do we shape the playing field to our advantage?	• What are the economics of game? • Which types of players are necessary? • Do the economics differ for different types of players?	• Where are the bottlenecks? • Which one is most critical?	• Are there one-off moves that will resolve the critical bottlenecks? • Are there simple rules for a repeatable strategic process that will resolve the critical bottlenecks?	• How should we learn about the playing field? • Should we update our simple rules? • What are the key uncertainties that we face?	• How many simple rules should we have? • How tightly should we couple our ecosystem, activity system and organizational structure?
Why important	• Helps strategists shape advantageous industry architecture • Helps strategists make better moves	• Adds to understanding of how the game will evolve and what the viable strategies are	• Allows strategists to focus on best ways to achieve growth	• Resolution of critical bottleneck improves performance, particularly growth	• Helps strategists to stay current w/change in entrepreneurial settings	• Simple rules enable quick decisions, create coherence, and balance efficiency w/flexibility • Edge of chaos balances efficiency w/flexibility
Actions for strategists	• Gather data on: Substitutes Complementors Buyers Suppliers Rivals	• Understand industry cost and revenue structures • Understand game-specific features like network effects, economies of scale, and value creation vs. value capture	• Determine primary objective of firm • Brainstorm to uncover the critical bottleneck to achieving objective, considering first and second order effects	• Brainstorm how to resolve the critical bottleneck • Consider both one-off moves and simple rules for repeatable strategic process • If appropriate, craft simple rules including all rule types	• Be alert to lessons from trial-and-error experience • Use experiments to resolve specific uncertainties • Ensure experiments are inexpensive w/hypotheses	• Update simple rules, consider all rule types • Source new rules from values, identity, analogy, and experience • Monitor amount of structure and adjust
Open research questions	• How should firms promote their preferred industry architecture? • Do some shaping strategies follow others? • Do strategies differ among players?	• What are the principal types of business games? • What are their economics? • What are the best patterns of moves for each game?	• How can firms best identify the most critical bottleneck? • What are the dynamics of bottleneck location? • Are there types of bottlenecks?	• What are the toughest bottlenecks to relieve? • When is it better to use one-off moves vs. simple rules? • What determines whether a bottleneck is resolved?	• How should firms learn? • How do trial-and-error and experimentation combine? • Is experimentation always incremental?	• How do firms update their simple rules? • How do firm dynamics (e.g., power, politics) shape rules? • Do different rule types have distinct performance outcomes?

strategists often had to give up equity or revenue-share with these established firms. But they ended up with advantageous industry architectures. A second way was to acquire threatening rival ventures, strip their resources, and then shut them down. A striking feature of their use of alliances and acquisitions is that it centers on power and control. As such, it runs counter to the traditional resource-based view conceptualization of alliances and acquisitions as sources of valuable resources (Dyer and Singh 1998, Ahuja and Katila 2001, Graebner 2004, Hallen 2008). Finally, these superior strategists actively worked to become the cognitive referent of their nascent markets—i.e., the firm that epitomized the market in the minds of others. They promoted themselves with appealing (although not always true) founding stories, familiar templates, and signals that conveyed (but often exaggerated) their leadership. While creating the market was important, winning it was more germane (cf. Navis and Glynn 2010).

Ozcan and Eisenhardt's (2009) study of strategy formation in the mobile gaming industry also illustrates shaping the strategic playing field. The authors track six entrepreneurial rivals who were simultaneously vying to be winning U.S. mobile game publishers, creating an unusually close comparison of strategies. The most successful strategists proactively advocated unique industry architectures that became blueprints for the roles of players like carriers, brand owners, and handsets makers. In doing so, these strategists gave their own firms central roles in the emerging ecosystem, and adroitly encouraged potential powerful rivals to accept the blueprint roles. As important, these architectures provided a basis for coalitions. For example, the successful strategists at Starclick persuaded a carrier and platform to form a triad. Given Starclick's modest status as a new firm, they were unable to convince the highest status potential partners at the time to join. But they did persuade less influential firms to form an "*unholy trinity*" (as they called themselves) to work closely together to cocreate a superior mobile gaming experience. By forming the triad, Starclick created a superior service. As important, the firm also blocked entrepreneurial rivals from gaining access to its partners and enhanced its industry reputation. The trio ultimately changed the competitive order and together became dominant firms in the mobile gaming industry.

In contrast, less successful strategists saw their firms as simply suppliers of outstanding games (Ozcan and Eisenhardt 2009). So they focused on their own product development and tried to build relationships with other firms one-by-one by leveraging their existing ties, as predicted by social network theory (Gulati 1995). But since these ventures were unimportant with no track record and modest social capital, this approach (the norm for "average" established firms in stable markets (Gulati and Gargiulo 1999)) was slow and ineffective.

More broadly, superior strategists *play the correct "game"* (e.g., two-sided market, ecosystem, product-based industry). That is, these strategists recognize the underlying economics of their industries and shape their strategies accordingly. For example, Lee et al. (2017) describe how Groupon founders (i.e., Andrew Mason, Eric Lefkofsky, and Brad Keywell) began with a deep understanding of the historical norms for coupon exchange and then exploited their knowledge of this "game" in their exchange that connected buyers and sellers of online discount vouchers. Similarly, CEO John Bogle began Vanguard with rich insights of the investment business, in particular its cost structure (Siggelkow 2002), whereas Charles Merrill had an equally clear understanding of both the grocery and brokerage businesses that enabled him to see the similarities of their underlying economics, making brokerage services locally accessible to a large and new category of investors (Gavetti and Menon 2016). Finally, Reid Hoffman of LinkedIn understood the dynamics of social networks such that he built a valuable network of friends, while his rivals failed to understand how people prefer to connect with one another (Piskorski 2007). In short, superior strategists build on the performance drivers of their game to win, even though rivals may pioneer that market and build consumer familiarity within it (e.g., LinkedIn v. Plaxo, Amazon v. Books.com) (Lee et al. 2017).

Hannah and Eisenhardt (2017) present a particularly interesting study because they show that multiple strategies can be effective in the same game. They studied five firms in the nascent U.S. residential solar industry, an ecosystem of solar photovoltaic panels, financing, sales and design, racking equipment, and installation. The three highest performing firms each had a distinctly different strategy that nonetheless fit with the unique economics of ecosystems. The successful component strategist, for example, recognized the need for a superior community of complementors even as the firm continuously innovated with its own product and differentiated by emphasizing customer service and climate change. In contrast, the system strategist integrated multiple components and created artificial shortages that drove the emergence of bottlenecks. Finally, the bottleneck strategist adeptly moved from one bottleneck component to the next. Yet, the strategists at all three firms had an accurate understanding of ecosystem economics such as the implications of bottlenecks, complementors, and value creation versus value capture.

By contrast, less successful strategists were myopic (Hannah and Eisenhardt 2017). At one firm, they

focused on building a superior product for their component strategy (strategy that might work in a traditional physical goods industry), but they neglected complementors (fatal error in an ecosystem). They simply missed the relevance of complementors to value creation and a successful component strategy within an ecosystem. The executives at the other failed firm straddled between component and system strategies. So, they lacked a strong product such that a component strategy might work, and at the same time they did not control enough components to obtain the synergies that drive a successful system strategy. Overall, these less successful strategists misunderstood the underlying economics of the ecosystem "game."

A final aspect of a broad view of the strategic playing field is the skill of superior strategists in recognizing *bottlenecks*. Bottlenecks are constraints on market and firm growth due to poor quality, weak performance and/or scarcity. Thus, critical bottlenecks provide major opportunities for growth. That is, just as skilled soccer midfielders and basketball point guards recognize key obstacles to scoring, successful strategists in entrepreneurial settings spot bottlenecks. While the strategic implications of bottlenecks are well known within ecosystems (Adner and Kapoor 2010, Hannah and Eisenhardt 2017), they are also germane in other economic "games" such as two-sided markets (Ott and Eisenhardt 2017). Bremner and Eisenhardt (2017) provide an illustration in a physical goods industry. They compare two pioneers in the nascent civilian drone market, DJI and 3DR. Hobbyist-enthusiasts founded both firms in about 2008.

Based in Shenzhen, DJI executives pursued a strategy that tackled successive bottlenecks that limited the growth of the civilian drone market (Bremner and Eisenhardt 2017). Initially, these strategists focused on perfecting the autopilot, a component that enables users to guide drones from the ground. When DJI launched, the autopilot was widely seen as a key bottleneck to the growth of the market. DJI strategists then identified a new bottleneck: consumer assembly—i.e., consumers had to put components together by performing tasks like wiring and soldering. DJI resolved this bottleneck by creating an "out-of-the-box" drone product that fueled growth among a new category of buyers—i.e., those put off by "do-it-yourself" assembly. DJI strategists saw that the "killer app" for drones was probably video in vertical sectors like moviemaking and agriculture. So, they focused on the bottleneck to stable video: gimbal which is a component combining complex hardware and software technologies. By developing a superior gimbal, DJI strategists succeeded in making a "camera in the sky" that further propelled its growth. The firm is now a billion dollar company and the global industry leader in less than 10 years.

In contrast, California-based 3DR strategists were late in recognizing critical bottlenecks (Bremner and Eisenhardt 2017). Instead, they pursued an open-innovation strategy that relied on hobbyist members of the drone "maker movement" to develop new products. Since 3DR strategists were also deeply embedded in the hobbyist community, they had difficulty recognizing bottlenecks. Further, their reliance on the community made mobilizing engineers to resolve bottlenecks difficult. For example, while often talented, many community members were motivated to work on projects that fit their personal interests rather than aligning their efforts with resolving industry bottlenecks. Also, these members sometimes lacked rare and yet highly relevant technical expertise such as in radio engineering, flight physics, and system integration. Ultimately, 3DR simply stopped making drones and ceded industry leadership to DJI.

Finally, a classic example of recognizing bottlenecks is Apple's strategy for the iPod (Yoffie and Rossano 2012). Apple strategists took a broad view of the industry beyond simply designing a superior MP3 player, one that recognized the underlying ecosystem economics and the relevance of bottleneck locations. They resolved the payments bottleneck that plagued Apple's MP3 player rivals by cutting deals with record companies and creating iTunes. They also saw the looming flash memory bottleneck and so committed to long-term contracts with the relevant suppliers at attractive prices while simultaneously creating shortages for rivals. Overall, the iPod strategy created a highly successful growth business that bridged the revenue and profit gap between computers and the iPhone.

In sum, superior strategists in entrepreneurial settings have a broad view of the strategic playing field and actively shape that field to their advantage. Compared with less successful strategists, they have a better understanding of the underlying economics of their "game" and of the varied types of players influencing their game. Strikingly, they often operate in ways that are at odds with the traditional theories of strategy and organization—i.e., they pay attention to substitutes (not necessarily rivals), use acquisitions and alliances to gain power (not necessarily resources), simultaneously add multiple alliances (not one-by-one leveraging of existing ties), and focus on more winning (less on creating) new markets. Importantly, these strategists recognize bottlenecks to growth that enable capture of opportunities (Table 2).

3. Doing: Organizing at the Edge of Chaos

Our second theme is that executives who form superior strategies in entrepreneurial settings organize their firms to play the game at the "edge of chaos."[3] That

Table 2. Superior and Inferior Strategies in Entrepreneurial Settings

Focus	Thinking	Doing
Superior strategy	• Take broad view of strategic playing field, including rivals, substitutes, buyers, complementors, and suppliers • Shape game by encouraging potential rivals into other roles in preferred industry architecture, acquiring threatening rivals, and becoming the cognitive referent • Understand underlying economics of the correct game • Identify bottlenecks to growth	• Resolve bottlenecks with one-off moves and simple rules for key strategic processes • Use learning processes like experimentation to learn strategic playing field and update simple rules • Organize activity systems, organizational structure, and ecosystems at "edge of chaos"
Inferior strategy	• Focus on rivals • Use acquisitions and alliances for resources only and not market power • Leverage existing ties one-by-one to build alliances • Emphasize creating markets and not winning	• Address too many or incorrect bottlenecks • Fail to learn simple rules • Engage in little learning such as experimentation • Over- or under-structure activity system, organization and ecosystem

is, armed with a better understanding of the strategic playing field and its bottlenecks, superior strategists develop a thin playbook of simple rules and then improvise in real time. Like winning coaches in fluid sports such as soccer and basketball, these strategists organize their simple rules around opportunities that relieve bottlenecks, flexibly improvise within their simple rules during play, and improve their understanding of the strategic playing field and their playbook as they play. More broadly, superior strategists loosely couple their activity systems, organizational structures, and ecosystems such that they balance at the "edge of chaos" between efficiency and flexibility (Brown and Eisenhardt 1997, Davis et al. 2009).

Simple rules are heuristics or rules-of-thumb that save time and effort by focusing attention and simplifying thought (Eisenhardt and Sull 2001, Bingham and Eisenhardt 2011). Simple rules are "simple" meaning that there are only a handful (about —five to seven) that relate to a particular repeated process or activity like hiring, product innovation, and internationalizing. Like any superior strategy, the best simple rules are unique to a given firm. For example, Kickstarter and Indiegogo compete in the same industry but have very different simple rules for projects on their crowdfunding platforms (Sull and Eisenhardt 2015). Indiegogo has few rules beyond a project must be legal, and determines featured projects using an algorithm that rewards effort and popularity. In contrast, Kickstarter requires projects to fit into specific categories, and the staff chooses featured projects.

Overall, our positive view of simple rules conflicts with the traditional belief in psychology and strategy that heuristics are biased and ineffective (Kahneman 2011, Holcomb et al. 2009). Yet this latter view misses the advantages of heuristics, especially in real-life (not laboratory) situations (Goldstein and Gigerenzer 2009, Bingham and Eisenhardt 2011). Instead, simple rules are useful because they help strategists to (1) decide quickly (important in entrepreneurial settings); (2) communicate the rules to others (creating helpful coordination and coherence); and (3) most important, balance between efficient capture of expected opportunities and flexible capture of at least some unexpected ones (imperative in entrepreneurial settings) (Sull and Eisenhardt 2015).

A fundamental feature of simple rules is that they relate to distinct facets of opportunity capture. For example, Bingham and Eisenhardt (2011) study six technology-based ventures from Singapore, Finland, and the United States. Since a major bottleneck to growth for these firms was the size of their local markets, each chose to relieve this bottleneck and capture the related opportunities using internationalization. The authors confirmed the existence of different rule types and the uniqueness of the simple rules in each firm, consistent with being strategic. They also found that the strategists learn rules in an order with *selection* and *procedural* rules being first. S*election rules* are deliberate rules of thumb that specify which opportunities (e.g., geography, products, customers) to choose, whereas *procedural rules* are deliberate rules of thumb that guide execution of selected opportunities. For example, successful strategists at U-Analytics (pseudonym) quickly learned a selection simple rule (i.e., *restrict internationalization to English-speaking markets*) that they used to respond to an unexpected opportunity to enter Australia even though they knew little about the country. In contrast, the strategists learned *priority*, *stopping*, and *timing* rules for opportunities later, after they gained more experience (Bingham and Eisenhardt 2011).

A key point is that these latter rule types are especially relevant for high growth and so are particularly valuable (Bingham et al. 2007). Indeed, Bingham et al. (2007) confirm that superior strategists learn simple rules (especially the later ones) whereas those who do not learn have less successful strategies. Finally, in their study of 192 technology firms with over 3,400 alliances, Heimeriks et al. (2015) find that simple rules are particularly effective during specific phases of a strategic process (e.g., alliancing) when strategists face uncertainty and so have limited control (e.g., partner execution phase, but not partner selection and termination). In these uncertain phases, simple rules give strategists useful flexibility that bureaucracy hinders.

A close linkage exists among *simple rules, strategic processes, and bottlenecks* to industry growth that makes simple rules strategic (Sull and Eisenhardt 2015, Hannah and Eisenhardt 2017, Ott and Eisenhardt 2017). While some bottlenecks can be resolved by one-time action (e.g., Apple's long-term contracts with flash memory suppliers in the MP3 industry, DJI's gimbal in the civilian drone industry), many bottlenecks are resolved by repeating specific strategic processes that are guided by simple rules (Sull and Eisenhardt 2015).

An illustration comes from Hannah and Eisenhardt's (2017) study of ventures in the nascent U.S. residential solar industry. The successful strategists at Saturn (pseudonym) identified finance as the key bottleneck at founding and determined that the partnering process for residential contractors could relieve that bottleneck. By crafting appropriate simple rules for contracting, they could reassure Wall Street equity providers that Saturn itself had a strong market position and that it used top-notch contractors to design and install the rooftop solar systems in which they were investing. The rules for contracting included picking large, regional firms and requiring exclusivity and co-branding. The former rule engaged high-quality and stable contractor partners and simplified Saturn's operations. The latter rule let Saturn exploit its market power as the only firm in the residential solar industry providing financing.

Another example is Ott and Eisenhardt's (2017) study of strategy formation by three matched pairs of firms in nascent two-sided marketplaces. Superior strategists relieved successive bottlenecks that were impeding growth, frequently by forming simple rules. For example, two friends started MasterChef (pseudonym) to connect Western travelers with Asian hosts who would cook authentic meals in their homes. After over a year of working with hosts (first bottleneck), these strategists crystallized a handful of simple rules to select and train hosts that were different from their original expectations. They next learned simple rules for their second bottleneck, new city entry (e.g., Selection rule: *Avoid partying locations like Phuket* and procedural rule: *Use volunteer "ambassadors" to vet potential hosts*). In contrast, the less successful strategists at Hell's Kitchen (i.e., MasterChef's paired venture) failed to focus on a single critical bottleneck, had no focal strategic process, and failed to learn simple rules.

Strategists create simple rules from a variety of sources including personal values, analogies, and big-data analytics (Gavetti et al. 2005, Bingham and Kahl 2013, Sull and Eisenhardt 2015). But often, they learn simple rules from experience. That is, as they gain experience, strategists are likely to learn more about their strategic playing field, including bottlenecks and simple rules. But since communication and attribution patterns matter, not all strategists learn well. For example, Bingham and colleagues (Bingham and Haleblian 2012, Bingham and Davis 2012) study 12 technology ventures to determine why some strategists learn simple rules while others rarely do. They find that strategists who are likely to learn have convergent attributions (either internal or external) across hierarchical levels for mistakes, and to use more occasions for formal (not informal) communication. Further, Bingham et al. (2007) observe that this learning is essential—i.e., superior strategists learned simple rules about focal strategic processes and achieved higher growth for their firms. In contrast, those who learned idiosyncratic facts (e.g., size of the German market, tips for train travel in Japan) but not relevant simple rules had less successful strategies.

More broadly, superior strategists engage in a variety of processes to learn about their strategic playing field and improve their simple rules. These include *trial-and-error learning* or *local search* (Bingham and Eisenhardt 2011), *improvisation* (Miner et al. 2001, Bingham 2009), and *bricolage* (Baker and Nelson 2005). While these processes involve some cognition, their emphasis is on action. A good example is *experimentation*, a particularly useful process by which superior strategists learn (Miner et al. 2001, Martin and Eisenhardt 2010, Reis 2011). By experimentation, we mean the use of controlled variations of activities in order to clarify uncertainties. As such, experimentation can hasten and improve strategy formation including simple rules when well-identified uncertainties exist.

For example, Ozcan and Eisenhardt (2009) examine strategy formation by six ventures in the nascent mobile gaming industry. As is typical of nascent markets, confusing information shrouded mobile gaming. The superior strategists at Starclick (pseudonym for highest performing firm) used experimentation to clarify several critical uncertainties. One was the popularity of different game genres (e.g., action versus leisure games). These strategists experimented by

releasing a product in each of several likely genres. They unexpectedly learned that mobile gaming attracted older players and more women than traditional console-based gaming, and that mobile-gaming consumers strongly preferred leisure games like bowling (not action games). Starclick executives adjusted their understanding of the industry and their strategy based on these experiments before rivals became aware. In contrast, less successful strategists failed to experiment. As a result, they either incorrectly bet on traditional action games or copied Starclick. In both situations, they fell behind.

Another illustration is Bingham and Davis' (2012) study of strategy formation in nine technology-based firms. In each firm, the strategists used an internationalization process to grow. But the superior strategists also used experiments to clarify whether and how to move forward with added country entries. For example, the successful strategists at one firm entered culturally similar Australia as an experiment to learn how to manage country entries well. As one strategist noted, *"Australia is a good test bed . . . It's low risk and easy to see what drives profitability."* As part of their experiment, these strategists gave a very experienced country manager significant autonomy to run the Australian business. The experiment, however, revealed that this autonomy was ineffective because it disconnected Australian operations from the rest of the firm. As a result, these strategists added some rules for subsequent country entries to couple these operations more closely to headquarters but not suffocate them. In contrast, less successful strategist skipped experimentation, and instead often just jumped into new countries.

Experimentation is particularly effective when it is low cost and hypotheses driven (Brown and Eisenhardt 1997, McGrath 2010, Blank 2013). Low cost enables more experiments and improves learning by keeping losses small (Brown and Eisenhardt 1997). Hypotheses force executives to think deeply, and especially when disconfirmed, enhance learning. Dropbox provides a helpful example (Eisenmann et al. 2014). These strategists faced uncertainty about the effectiveness of various channels for reaching customers. They clarified this uncertainty by quickly and cheaply engaging in two experiments. One created distribution deals with corporate partners like a major anti-virus software vendor while the other involved viral marketing among existing Dropbox consumers. The strategists rapidly learned that the corporate partners would very slowly, if ever, commit. By contrast, the viral strategy of using referrals by current customers to their friends led to rapid growth (e.g., 35% of new users came from the referral program and 20% through shared folders and other viral features). Viral marketing became central to Dropbox's successful strategy. Similarly, Airbnb strategists used two quick and inexpensive experiments to learn how to recruit hosts: one involved offline social events, and the other used social media (Teixeira and Brown 2016). The surprising success of the offline events led to its becoming core to Airbnb's successful strategy for internationalization.

More broadly, superior strategists *organize at the "edge of chaos"* (Brown and Eisenhardt 1998, Davis et al. 2009). That is, they loosely couple their activity systems, organizational structures, and ecosystems to balance between the efficiency of executing known opportunities and the flexibility of capturing unexpected but attractive new ones in entrepreneurial settings. These semi-structures are likely to enable more growth and resiliency than either more or less structure. Tripsas et al. (2008), for example, explore the nascent air taxi industry. The authors find that the loosely coupled ecosystem of LinearAir (e.g., weak ties to local airports, weak ties to airplane manufacturers, redundant airplane types) was more robust and effective than rival Dayjet's tightly coupled one (e.g., preordered Eclipse planes, $20 million investment in airline routing software, and substantial fixed investments in regional airports and local infrastructure). The latter may have been efficient, but it lacked resiliency in the entrepreneurial setting of the air taxi industry.

Superior strategists often loosely couple business-units within large and diverse firms in entrepreneurial settings (Galunic and Eisenhardt 2001). Gilbert's (2005) study of six newspapers diversifying into Internet content illustrates. The superior strategists formed separate Internet business units that they loosely coupled to their traditional print-based newspaper businesses. In contrast, the less successful strategists either kept the fledgling Internet business tightly coupled inside the traditional newspaper organization (too much structure) or uncoupled these new businesses as completely isolated and separate units. Similarly, McDonald and Eisenhardt (2017) find that successful strategists loosely couple their activity systems to be able to adjust to unexpected and serendipitous opportunities.

In sum, superior strategists in entrepreneurial settings organize their firms to play their game at the edge of chaos. They develop a thin playbook of simple rules and improvise. They continue to use processes like experimentation to learn more about their markets and to improve their simple rules. More broadly, these strategists loosely couple their activity systems, organizational structures, and ecosystems. They both recognize the key bottlenecks on their strategic playing field and address them using simple rules for strategic processes and other semi-structures as well as one-off moves. Although the efficacy of simple rules is at odds with the negative view of heuristics that dominates

psychology and strategy, this view misses the advantages of heuristics, particularly in real-life settings. In contrast, inferior strategists miss bottlenecks, fail to develop simple rules to address bottlenecks, limit their learning, or over- and/or under-structure their firms. Overall, superior strategists in entrepreneurial settings emphasize both thinking broadly about their strategic playing field, and doing by organizing at the edge of chaos to capture fleeting opportunities sooner, faster and better than rivals.

4. Discussion

Our aim is to offer a perspective on the origin of superior strategies in entrepreneurial settings. We began by arguing that spotting a promising business opportunity is a long way from forming a superior strategy. While such an opportunity may be a necessary condition for superior strategy, strategy formation is what separates truly successful strategy from a mediocre one. On the one hand, executives must form novel, advantageous strategies. Yet they operate in "high-velocity" (i.e., ambiguous, unpredictable, fast-paced) markets that limit planning and favor "strategy by doing." On the other hand, executives must also form strategies that combine individual activities like product innovation and internationalizing to build a complex and coherent activity system that fits together. This favors "strategy by thinking" in which executives develop a holistic understanding of their market as well as their strategy and its underlying logic (Ott et al. 2017). Building on empirical research and corporate exemplars, we argue that executives who form superior strategies in entrepreneurial settings fuse thinking and doing. That is, they blend two themes: they understand their broad strategic playing field even as they organize their firm and its playbook at the edge of chaos. To continue the analogy to fluid sports like soccer and basketball, superior strategists both understand and shape the game even as they play it.

Underlying our perspective is opportunity logic. This logic contrasts with the traditional logics of defensible strategic position and leverage of valuable rare inimitable non-substitutable (VRIN) resources (Table 3). So while strategy is always about being "different" in a competitively advantageous way, strategy in entrepreneurial settings is about capturing attractive but fleeting opportunities sooner, faster, and better than rivals (Bingham et al. 2007). Thus, strategy is less about building a low-cost or differentiated strategic position with many reinforcing and often mundane activities (Porter 1996) and less about leveraging a handful of VRIN resources into existing and adjacent markets (Barney 1991). Rather, strategy is about thinking—i.e., understanding a broad view of the strategic playing field (i.e., its players, underlying economics, and bottlenecks) and doing—i.e., organizing at the "edge of chaos" (i.e., resolving bottlenecks with simple rules and strategic processes, continually learning about the playing field and simple rules, and loosely coupling structures and systems).

Our perspective contributes to the concept of opportunity logic in several important ways. First, we add insights regarding *bottlenecks and successful opportunity capture*. Prior research on opportunity logic argues that superior strategy in entrepreneurial settings consists of selecting a few key strategic processes (e.g., alliance, acquisition, and product innovation) where opportunity flows are abundant, and creating a few simple rules to capture the most attractive ones (Bingham and Eisenhardt 2008, 2011). Recent work points to the role of addressing bottlenecks with simple rules (Sull and Eisenhardt 2015). We advance this thinking by noting that strategists can actually resolve bottlenecks and create growth in two ways: (1) one-off moves like Apple's flash memory contracts and DJI's gimbal, and (2) simple rules for strategic processes like MasterChef's process for city entry where repeated activities relieve the bottleneck. Thus, we place bottlenecks squarely in the strategic spotlight: A broad view of the strategic playing field helps strategists to identify critical bottlenecks, while one-off moves and simple rules address them to scale growth. Finally, bottlenecks are dynamic: they move over time based on exogenous (e.g., unexpected external events like legal changes from outside the industry) and endogenous (e.g., hoarding critical components by rivals) factors. Overall, bottlenecks are the critical linchpin between the "thinking" and "doing" of strategy in entrepreneurial settings—i.e., they indicate where growth is being blocked and so where to focus strategic thinking and act.

Second, we also add to the concept of opportunity logic by identifying the value of a *broad view of the strategic playing field*. Past work on opportunity logic has largely centered on the organization of the firm and its rules (Eisenhardt and Sull 2001, Bingham and Eisenhardt 2011, Sull and Eisenhardt 2015). A key insight is that while opportunity logic encourages strategists to focus on *fewer* simple rules, it also requires executives to look broadly at *more* types of players in the game—i.e., substitutes, complementors, buyers, and suppliers. This broad lens that goes beyond rivals helps strategists to see how best to shape the playing field including creating coalitions and blocking rivals, and how to identify and relieve critical bottlenecks.

Most important, we extend research on opportunity logic by highlighting that superior strategy in entrepreneurial settings relies on fusing "strategy by thinking" *and* "strategy by doing" (Table 2). That is, superior strategists see the broad strategic playing field and shape it to their advantage (thinking) AND actively engage via trial-and-error, experimentation,

Table 3. Strategic Logics for Superior Strategies

Strategic logic	Position	Leverage	Opportunity
Relevant setting	• Stable, established market	• Predictably changing market	• High velocity (uncertain, ambiguous, fast-paced) market • Ventures and innovation-focused established firms
Know the game	• Define industry • Analyze forces within industry structure • Understand reinforcing interrelationships among current and potential activities	• Analyze attractiveness of current and potential future markets • Identify VRIN and other resources for current market • Understand VRIN and other resources needed in the future for current and new markets	• Develop broad understanding of strategic playing field, including influential types of players • Promote unique, advantageous industry architecture via co-optation and acquisitions • Understand the underlying economics of "correct" game • Identify critical bottleneck
Play the game	• Mitigate strong forces, exploit weak forces • Select generic strategy (cost or differentiation) against rivals • Implement tightly linked activities and resources underlying generic strategy	• Build and maintain portfolio of VRIN resources in current markets • Exploit resources in current markets • Leverage existing resources and build new ones for new markets	• Relieve critical bottleneck by one-off moves • Relieve critical bottleneck via creating simple rules for key process(s) and improvising • Use learning approaches like experimentation trial-and-error to update industry understanding and simple rules
Organization	• Tightly linked, often mundane resources and activities	• Several, moderately linked resources including VRIN ones	• Loosely coupled structures—simple rules, activity system, organization, and ecosystem
Primary focus of strategist	• Rivals, and to a lesser degree, substitutes, buyers, and suppliers	• Rivals, and to a lesser degree, substitutes	• Substitutes, and to a lesser degree, rivals, complementors, buyers, and suppliers
Duration of competitive advantage	• Long-term	• Long-term	• Unpredictable duration and scale
Core challenges	• Maintain internal consistency of activity system • Adjust strategy and activity system when industry changes	• Trade-off among organic development vs. acquisition vs. alliance for building resources • Investing to develop new VRIN resources • Limit investing in obsolete VRIN resources	• Consider all players, not just rivals • Maintain focus on critical bottlenecks • Have all types and right number of rules • Stay poised at the edge of chaos with semi-structures

and related processes to update their understanding of that playing field and determine the right activities (doing). Likewise, superior strategists know the underlying economics of their game and the location of bottlenecks (thinking) AND address bottlenecks with unique yet advantageous simple rules and semi-structures in order to capture their industry's best opportunities (doing). To conclude, we hope that our perspective offers fresh insight into a fundamental strategic question: What is the origin of superior strategies in entrepreneurial settings?

Endnotes

[1] We also assume that, while spotting a promising business opportunity may be a precondition for a superior strategy, it is not the same as forming winning strategy (a much more difficult task). For example, Airbnb founders quickly spotted their business opportunity but spent several years forming their winning strategy. That is, an opportunity is not a strategy.

[2] We recognize that our "thinking" theme contains some elements of "doing" like shaping the playing field and vice versa. Nonetheless, we use the dichotomy to emphasize that the former emphasizes thinking more than doing—i.e., thoughtful understanding of the playing field, economics of the "game", and bottleneck locations—while the latter emphasizes action and learning albeit with elements of thinking.

[3] The concept, edge of chaos, is often linked to complexity theory. It (1) denotes the precarious (i.e., knife-edge) structural position between efficiently capturing predicted opportunities and flexibly capturing unexpected ones, (2) occurs when uncertainty is high, and (3) is a dissipative equilibrium, thus requiring constant energy to maintain the optimal point (Davis et al. 2009).

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Kathleen M. Eisenhardt is the Stanford W. Ascherman M.D. Professor of Strategy at Stanford University and codirector of the Stanford Technology Ventures Program. Eisenhardt's research sits at the nexus of strategy and organization theory where she focuses on high-velocity markets and technology-based firms. She is now studying strategy in distinct economic "games" and strategy as simple rules, particularly using multicase methods. Her Ph.D. is from Stanford's Graduate School of Business.

Christopher B. Bingham is the Philip Hettleman Distinguished Scholar, Professor and Area Chair of Strategy and Entrepreneurship, and codirector of the Kenan Entrepreneurship Initiative at the Kenan-Flagler Business School, University of North Carolina at Chapel Hill. Bingham's research focuses on strategy and organization in entrepreneurial settings. He is now studying strategy as simple rules, founder dynamics, and accelerator practices and outcomes. His Ph.D. is from Stanford University.