

# A Liability of Breadth? The Conflicting Influences of Experiential Breadth on Perceptions of Founding Teams

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*Although it is well established that top management team (TMT) experience is highly valued in new ventures, research has largely focused on the value of experience depth. However, founding teams often bring a myriad of different types of experience to their business. Less is understood about how these experiences are perceived by key stakeholders, and prior theory suggests that TMT breadth could be viewed as either an asset or a liability. Drawing from theory on cognitive categorization, we hypothesize that the perceived value of executive breadth depends on the context in which a venture is situated. We argue that the characteristics of the environment shape the degree to which experience breadth is valued, and we show that investors assess breadth positively in opportunistic environments but negatively in threatening environments. Contrary to previous research, we show that breadth can, at times, be viewed as a distinct liability for a new venture. In supplementary analyses, we also show that these effects are not contingent upon the depth of the founding team's experience. Further, we find that founding team*

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*breadth does have significant influences on firm strategy, including the structural positioning of the firm in an industry's value chain and the cultivation of diverse revenue streams, but that the effect of breadth on investor perceptions is not mediated through these differences in strategy.*

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Investors love experience. This is particularly true when they are evaluating new ventures. There is overwhelming anecdotal and empirical evidence to indicate that investors pay close attention to the experiences founding top management teams (TMTs) bring to the table (Hsu, 2007; Reinink, 2010; Sandberg, 1986). While the literature has shown that early investors strongly prefer to risk their money on new ventures that are led by teams with deep industry experience (Cooper, Gimeno-Gascon, & Woo, 1994; Kor, 2003), it is much less clear how potential investors value experience breadth (the range or scope of prior experiences held by each member of the founding team). Thus, the primary focus of this research is to investigate whether potential investors place the same premium on founding teams with a breadth of experience as they do on depth of experience and the degree to which this varies across different environmental contexts.

Although little research has specifically examined how TMT experience is perceived, work on the direct effects of experience depth has shown a strong and consistent positive influence on new ventures, while research on experience breadth has demonstrated a more mixed set of influences. On the one hand, several findings suggest that broad experience would likely be perceived by potential investors as quite valuable for early-stage firms. For example, studies have found that breadth has a positive influence on unit/firm performance (Bunderson & Sutcliffe, 2002; Cannella, Park, & Lee, 2008). Further, researchers have argued that experiential breadth can help leaders to innovate more creatively (Beckman, 2006), identify more opportunities (Gruber, 2010; Gruber, MacMillan, & Thompson, 2012), and access a wider social network (Kelley & Caplan, 1992). On the other hand, some scholars have blamed some types of breadth for creating negative dynamics internally in organizational decision making, including engendering conflict within TMTs (Simons & Peterson, 2000), fostering a lack of strategic focus (Crossland, Zyung, Hiller, & Hambrick, 2014), making leaders more sensitive to exploratory prospects (Alexiev, Jansen, Van den Bosch, & Volberda, 2010), and slowing decision making (Forbes, 2005). Reflecting the mixed potential influences of experience breadth, Cannella and colleagues (2008: 768) fittingly referred to breadth as a “two-edged sword.”

In this manuscript, we extend this idea beyond just the effects on internal issues to also consider how different types of TMT experience breadth impact the perception of firms by key external audiences. Specifically, we build theory around the conditions in which TMT experience breadth may positively influence potential investor perceptions of new ventures as well as when breadth may negatively influence these investor perceptions. This line of theorizing builds upon work by Weick (1979) and others who have argued that managers and stakeholders use cognitive heuristics to make sense of complexity (Bingham & Eisenhardt, 2011; Maitland & Sammartino, 2015). In order to develop such perceptual heuristics into specific and testable hypotheses, we draw from Dutton and Jackson's (1987) work on

cognitive categorization processes. This theoretical perspective suggests that information is considered differentially salient depending on the degree to which observers perceive an environment to hold threats or opportunities (Jackson & Dutton, 1988). Applied to the perception of new ventures with varied levels of founding team experience breadth, it would suggest that investor perceptions of the value or risk associated with experience breadth would depend on whether the venture was situated in a threatening or an opportunistic environment. Applying Dutton and Jackson's perspective, we argue that when new ventures are situated in environments with a strong opportunity for potential growth (Ropo & Hunt, 1995), investors are more likely to focus on the benefits of broad experiences, as they provide the raw material to take advantage of such opportunities. However, Dutton and Jackson's perspective also highlights how investor perceptions are likely to differ in threatening environments, where new ventures will face intense competitive pressures. In these cases, we expect investors to focus more on minimizing risk, and thus actually penalize founding teams with broad experience.

To illustrate how investors situate their assessment of experience breadth within a broader context, we offer the example of Webvan. This high-profile dot-com-era venture was a grocery delivery service that raised an incredible \$800 million from early-stage investors. Led by an exceptionally diverse and accomplished team, ranging from Louis Borders (a founder of Borders bookstores) to George Shaheen (former CEO of Anderson Consulting) and Robert Swann (a finance chief for GE), Webvan focused on growth at all costs in a turbulent new market where investors were likely to see a wide range of potential opportunities. Swann once described its approach as akin to "building a rocket to Mars" (Cohan, 2013). The founding team, emboldened by their prior experiences in many sectors, made a series of wild investments in a wide range of strategic initiatives. These investments included novel robotics and warehousing technologies, developing their own driver navigation system, and rolling out physical distribution into a wide slate of new sales markets all at once. Despite their innovation, the team stumbled in executing on their ever-growing list of strategies, never demonstrating a clear commitment to any unified plan of execution. In the end, many of the team's ideas proved to be legitimately groundbreaking—some of its core employees and intellectual property have been central in the successful growth of AmazonFresh and Kiva Systems robotics (Ramalingegowda, 2014)—but the inability to remain focused on the execution of a core business model led to its unraveling. Despite the troubling signs, Webvan's founding team was still able to secure hundreds of millions of dollars from investors, who were in part enthralled by the "dream team" of founders that brought a considerable breadth of experience to the venture in an industry full of promise. The possibilities enabled by the breadth of expertise on the founding team combined with the opportunities available in the operating environment to make investors enthusiastic, causing them to overlook the potential vices associated with breadth that, in retrospect, were clearly present. In a more competitive environment, our theory suggests that investors would have exercised greater caution and more closely considered the potential downsides of the team's breadth of experience (e.g., Webvan's inability to remain focused on execution) in a less forgiving environment. Thus, our theory suggests that the founders' impressive breadth would have actually worked against them in their attempts to secure funding from investors in a less opportunistic environment, potentially saving investors millions of dollars.

To formally test our hypotheses, we examined the perceptions of hundreds of potential investors who evaluated 168 early-stage ventures for investment at a business plan competition and investor conference. Teams competed not only for prize money but also for major investment. Over the 9 years we study, from 2002 to 2010, the ventures in our sample received hundreds of thousands of dollars in prize money and over \$75 million of direct investment from these investors. Controlling for the influence of experience depth, and a variety of other factors related to the founding team, the business plan, the new venture's strategy, and the environment, our results show that founding teams with higher levels of breadth were evaluated negatively by potential investors in threatening competitive environments but positively in opportunistic munificent and turbulent environments.

In advancing these ideas, our work contributes to theory and research on upper echelons and entrepreneurship in at least four ways. First, our work provides several extensions to the upper-echelons literature's understanding of how TMT experience influences organizations. This contribution starts with our focus on how experiential breadth is viewed by key external stakeholders, rather than the influence of such experience on internal TMT functioning or firm performance. By employing Dutton and Jackson's (1987) cognitive categorization theory, we are able to move away from this literature's typical focus on internal team dynamics and decision making to instead focus outside of the firm. In doing so, our theory helps explain why external audiences can sometimes see the same founding team experience profile in very different ways in different environments.

Second, our research explicitly tackles the conflicting predictions of research on experience breadth with a new cognitive perspective that provides fresh insight for this literature. This allows us to test direct theoretical predictions regarding the double-edged sword of experience breadth and demonstrate when intrapersonal TMT experience breadth can be viewed negatively. We refer to this as a *breadth liability*. Interestingly, if we had considered only the main effects of founding team breadth, we would have concluded that breadth had no consistent impact on potential investor evaluations. However, this main effect was simply shrouded by the fact that two symmetrically competing effects were occurring simultaneously in our data: a strong negative effect in competitive environments and a consistent positive effect in more opportunistic environments. In supplementary analyses, we take this a step further, by showing that not only do investor perceptions of breadth have competing effects but these effects do not depend upon the depth of the founding team's experience.

Third, turning to how our work contributes to entrepreneurship research, we offer a new perspective in a situation where investor evaluations of founding teams are particularly salient and the stakes for survival and growth are high. With the Webvan story, we challenge the dominant narrative in entrepreneurship that "all experience is good experience" (e.g., Cooper et al, 1994; Hsu, 2007) and provide a theoretical rationale for understanding why investors continued to invest so heavily in the venture despite clear warning signs. This case, where an exceptional range of experiences among Webvan's founders combined with an opportunistic environment to drive exuberant early-stage funding, offers an important illustration of the challenges we develop in this paper.

Finally, our research makes several additional contributions through our testing of a comprehensive set of experience measures and our analysis of multiple alternative causal models through which experience could influence firm strategy. We demonstrate that TMT experience breadth and depth are independent constructs through factor analysis and find that five

dimensions (functional, educational, industrial, organizational, and entrepreneurial) of experience breadth load onto a single factor that is independent and distinct from our multidimensional measure of experience depth. This represents the most inclusive and thorough measurement and validation of executive experience that we are aware of in any literature. Additionally, our supplementary analyses investigate possible alternative explanations for our findings in which the effects of breadth might be mediated by an intervening effect on firm strategy. In fact, we tested six potential alternative models that show that founding teams with broader prior experiences did develop somewhat different strategies than their more narrowly experienced peers, including an increased focus upstream in the value chain of their markets and the development of a wider range of revenue streams (under certain conditions). Importantly, however, these effects did not have a statistically significant mediating effect on potential investor evaluations, showing that our findings were not simply driven by different strategies adopted by more broadly experienced founders. Together, each of these additional findings offers further perspective to advance the literature on TMT experience both theoretically and empirically.

### Definition and Conceptualization of Experiential Breadth

Before developing our theory and hypotheses, it is important to define the central construct of our investigation. Prior work in the literature has often defined *experience breadth* on relatively narrow dimensions. For example, Beckman (2006) focused on career variety as a form of breadth, an approach with which others have followed suit (e.g., Beckman, Burton, & O'Reilly, 2007; Crossland et al., 2014; Marvel & Lumpkin, 2007). Cannella and colleagues (2008) opted to focus on experience from different functional areas to represent their breadth construct, whereas Gruber (2010) conceptualized breadth as an industry-based construct (see also Gruber, MacMillan, & Thompson, 2013). However, given that these various approaches all at their core represent the higher-order breadth construct, we sought to develop and advance a more encompassing definition and approach to capture *experience breadth*. In order to do so, we chose a more fundamental starting point for our definition.

Merriam-Webster defines *breadth* as “the quality of including many things; the wide scope or range of something” and *experience* as the “direct observation of or participation in events as a basis of knowledge.” Thus, we define the experiential breadth of the founding team as representing the range or scope of events the founding team collectively has had the opportunity to observe or participate in as a basis of their collective knowledge. This definition is purposefully general and all encompassing in order to reflect the variety of experiences amassed by a given founding team across the many dimensions that are represented by the construct and have been studied piecemeal in the literature. We match our definition of breadth with a broad investigation of these various dimensions of experience, including functional (e.g., Dencker, Gruber, & Shah, 2009), educational (e.g., Davidsson & Honig, 2003), organizational (e.g., Beckman, 2006), industry (e.g., Gruber, 2010), and entrepreneurial (e.g., Cooper et al., 1994) breadth, a more exhaustive/inclusive approach than the single-dimensional approach typically used in the prior literature (see Table 1). Altogether, these dimensions comprise a comprehensive collection of the piecemeal approaches used in the founding team context from prior work on breadth in the literature. We also take additional steps with our multidimensional approach to determine how different forms of experience breadth

**Table 1**  
**Prior Experience Research and Measurement**

Measurement	Depth	Breadth
<b>Measure</b>		
Count	Chandler & Hanks, 1998; Davidsson & Honig, 2003; Delmar & Shane, 2006; Eggers, 2012; Godart, Maddux, Shipilov, & Galinsky, 2015; Khanna, Jones, & Boivie, 2014; Klepper & Simons, 2000; Kor, 2003; Marvel, 2013; Marvel & Lumpkin, 2007; Petkova, Rindova, & Gupta, 2013; Siegel, Siegel, & MacMillan, 1993	Beckman, 2006; Beckman, Burton, & O'Reilly, 2007; Campion, Cheraskin, & Stevens, 1994; Crossland, Zyung, Hiller, & Hambrick, 2014; Dencker, Gruber, & Shah, 2009; Dowell, 2006; Gruber, 2010; Gruber, McMillan, & Thompson, 2013; Godart et al., 2015; Leiponen & Helfat, 2010; Lester, Hillman, Zardkoohi, & Cannella, 2008; Marvel & Lumpkin, 2007; D. Miller & Chen, 1996
Scale	Marvel & Lumpkin, 2007; Stuart & Abetti, 1990	Gruber et al., 2013
Index	Cooper, Gimeno-Gascon, & Woo, 1994; Crocker & Eckardt, 2013; Dimov & Shepherd, 2005; Zarutskie, 2010	Bunderson & Sutcliffe, 2002; de Vries, Walter, Van der Vegt, & Essens, 2014
<b>Level of analysis</b>		
Individual	Chandler & Hanks, 1998; Cooper et al., 1994; Davidsson & Honig, 2003; Delmar & Shane, 2006; Godart et al., 2015; Kor, 2003; Marvel & Lumpkin, 2007; Siegel et al., 1993; Stuart & Abetti, 1990	Campion et al., 1994; Crossland et al., 2014; Gruber, 2010; Dencker et al., 2009; Lester et al., 2008; Godart et al., 2015; Leiponen & Helfat, 2010; Marvel & Lumpkin, 2007; D. Miller & Chen, 1996
Team	Beckman, 2006; Beckman et al., 2007; Bunderson & Sutcliffe, 2002; de Vries et al., 2014; Dowell, 2006; Dimov & Shepherd, 2005; Gruber et al., 2013; Haynes & Hillman, 2010; Khanna et al., 2014; Petkova et al., 2013; Zarutskie, 2010	Beckman, 2006; Beckman et al., 2007; Bunderson & Sutcliffe, 2002; de Vries et al., 2014; Dowell, 2006; Gruber et al., 2013; Haynes & Hillman, 2010
Organization	Eggers, 2012; Klepper & Simons, 2000; Stuart & Abetti, 1990	
<b>Type of experience</b>		
Firm specific	Kor, 2003	Beckman, 2006; Beckman et al., 2007; Crossland et al., 2014; Dowell, 2006; Marvel & Lumpkin, 2007
Functional	Stuart & Abetti, 1990	Bunderson & Sutcliffe, 2002; Campion et al., 1994; Crossland et al., 2014; de Vries et al., 2014; Gruber, 2010; Gruber et al., 2013; Haynes & Hillman, 2010; Lester et al., 2008
Knowledge base	Chandler & Hanks, 1998	Dencker et al., 2009; Gruber et al., 2013; Leiponen & Helfat, 2010
Decision type	Godart et al., 2015	D. Miller & Chen, 1996
International		Godart et al., 2015
Industry	Kor, 2003; Marvel & Lumpkin, 2007; Petkova et al., 2013; Siegel et al., 1993; Zarutskie, 2010	Campion et al., 1994; Gruber, 2010; Gruber et al., 2013
New venture	Chandler & Hanks, 1998; Cooper et al., 1994; Delmar & Shane, 2006; Petkova et al., 2013; Stuart & Abetti, 1990	Cooper et al., 1994
Educational	Dimov & Shepherd, 2005; Khanna et al., 2014; Marvel, 2013; Marvel & Lumpkin, 2007	Davidsson & Honig, 2003
Team	Khanna et al., 2014; Kor, 2003	
Product	Eggers, 2012; Stuart & Abetti, 1990	
Work	Davidsson & Honig, 2003; Dimov & Shepherd, 2005; Marvel, 2013; Marvel & Lumpkin, 2007	
Success	Crocker & Eckardt, 2013	
Task	Zarutskie, 2010	

actually reflect the theoretical construct and definition, which we describe in more detail in our Method section.

Importantly, this type of experiential breadth is conceptually different from the construct of TMT diversity, which focuses on the distribution of characteristics across a team. Rather than focus on the average *discrepancy* between the experiences of team members, breadth focuses on the total *variety* of individual experiences available to the team, which some have referred to as the collective “intra-personal diversity” of a TMT (Bunderson & Sutcliffe, 2002: 875). Illustrating this concept, Bunderson and Sutcliffe (2002) described how TMTs with higher levels of diversity might have a team with a few different “specialists” (such as individuals who have worked in only one area of a business), but little overall breadth, and yet be viewed as diverse because of the discrepancies between members across the team (e.g., a set of Fortran programmers together with a set of retail sales clerks). Further, our broad-based, multidimensional treatment of breadth is additionally beneficial in that, rather than focusing on one type of individuals’ primary experience, we encapsulate the individuals’ entire range of experience across multiple dimensions.

As such, for nomological clarity, and thus to avoid confusing this with *diversity*, we refer to this as a founding team’s *experiential breadth*. Our approach, which provides more equal treatment to both the pros and cons associated with experiential breadth, will help us to identify when and how experience breadth may actually be negative for new ventures, an argument that has been rarely made in the literature specific to breadth. Having defined experiential breadth, we now develop specific hypotheses for the role of experiential breadth on investor evaluation in various new-venture environments.

## Founding Team Experience in New Ventures

There is a long tradition of research in strategy suggesting that the background of executives has a profound influence on organizations (see Carpenter, Geletkanycz, & Sanders, 2004). This influence is particularly salient when considering new ventures, where the decisions of founders have strong imprinting impacts on organizations as they grow (Baron, Burton, & Hannan, 1999; Gilbert, McDougall, & Audretsch, 2006), relative to the TMTs of larger organizations. Thus, it is not surprising that the nature of these backgrounds factor strongly in investment decisions by angels and venture capitalists (Beckman & Burton, 2008; Hsu, 2007; Sandberg, 1986).

Despite the well-accepted value of experience in shaping key organizational processes and outcomes, most research that has considered the influence of experience in new ventures has focused on either the basic accumulation of experience depth by founders in a particular industry (e.g., Cooper et al., 1994; Delmar & Shane, 2006; Kor, 2003; Siegel, Siegel, & MacMillan, 1993) or an individual’s experience as a serial entrepreneur (Burton, Sørensen, & Beckman, 2002). This focus on depth is understandable, as it draws from a long tradition of studies in organizational learning that shows that performance improves along a learning curve (Argote, 2012; Darr, Argote, & Epplé, 1995; Preston & Keachie, 1964). Deep experience has been found to specifically help entrepreneurs, as their within-industry experience (e.g., Cooper et al., 1994; Delmar & Shane, 2006; Kor, 2003) and experience with prior ventures (Burton et al., 2002) can be transferred to their new ventures. In addition, depth of experience provides new ventures with several nonefficiency benefits, such as an improved

capability for managing alliances (Simonin, 1997) and an enhanced ability to identify technological opportunities (Dodgson, 1991). Similarly, the literature on serial entrepreneurs (i.e., individuals who have founded a number of new ventures) recognizes that these entrepreneurs are able to transfer learning from venture to venture such that they engage in less search (Westhead, Ucbasaran, & Wright, 2005), identify more opportunities (Ucbasaran, Westhead, & Wright, 2009), and are able to more readily turn search behaviors into business opportunities (Ucbasaran, Lockett, Wright, & Westhead, 2003) than entrepreneurs without new venture experience. Serial entrepreneurs also have a greater degree of entrepreneurial alertness (Gaglio & Katz, 2001) and are more optimistic after new ventures fail (Ucbasaran, Westhead, Wright, & Flores, 2010). In line with the substantial body of research supporting the benefits of depth of experience and serial entrepreneurship experience, research confirms that investors in new ventures acknowledge and value the benefits that such founding team experiences provide (e.g., Hsu, 2007).

In contrast with the large body of research exploring these types of founding team experience, much less is known about other forms of experience, and therefore it is less clear how investors will value them. In particular, experiential breadth has only recently gained favor among organizational researchers. As noted in the introduction, prior theory has argued that experiential breadth can positively influence new ventures in three ways. Specifically, breadth is likely to aid teams in promoting and enabling the creative recombination of products or business models (Eggers, 2012; Fleming, 2004), recognizing a greater number of opportunities (Gruber, 2010; Gruber et al., 2012), and providing a wide and proximal set of social contacts with which the firm can engage (Campion, Cheraskin, & Stevens, 1994; Kelley & Caplan, 1992).

Although we will consider the potentially conflicting negative influences of breadth in the next few sections, we will begin by hypothesizing a direct positive relationship between experiential breadth and investor evaluations. Taking into account both the positive influences found in the prior literature and the advantages of breadth expressed by these investors, we expect that, all else equal, investors will more positively evaluate ventures with broadly experienced founding teams.

*Hypothesis 1:* Potential investors will more positively evaluate new ventures led by founding teams with broad experiences than those founding teams with less broad experience.

### *The Moderating Influence of a New Venture's Environment*

Beyond this main effect, we posit that experiential breadth must be considered in situ (Cannella et al., 2008). Here we use Dutton and Jackson's (Dutton, 1993; Dutton & Jackson, 1987; Jackson & Dutton, 1988) theory of cognitive categorization, which posits that framing of different environmental conditions can shape investor perceptions (Eisenhardt & Schoonhoven, 1990; Li & Zhang, 2007). They suggest that environmental conditions are often simplified in the minds of stakeholders and categorized into frames as either opportunities or threats (Dutton, 1993; Dutton & Jackson, 1987; Jackson & Dutton, 1988). Further, they argued that these categorizations have a significant influence on the choices made by both internal and external organizational stakeholders (Dutton & Jackson, 1987). Building on this foundation, we expect that this cognitive framing—whether investors perceive a new venture's environment as opportunistic or threatening—will influence their valuation of



experiential breadth. Indeed, research demonstrates that investors pay particular attention to features of the environment when making investment decisions (Baum & Silverman, 2004; Hall & Hofer, 1993). We suggest that when investors evaluate new ventures in opportunistic environments, the aforementioned benefits of breadth are likely to be salient, and investors will retain their positive evaluations of new ventures with broadly experienced founding teams. In contrast, in more threatening environments, the general positive evaluation of breadth can be clouded by trade-offs that can make such experience appear less valuable—or even detrimental. In particular, three key disadvantages that come with experience breadth are likely to be more salient: the lack of strategic focus (Crossland et al., 2014; Hambrick, Geletkanycz, & Fredrickson, 1993), team conflict (Simons, Pelled, & Smith, 1999), and slow decision-making processes (Forbes, 2005).

We consider three fundamental dimensions of a firm's environment that are likely to elicit either opportunistic or threatening frames (Dutton & Jackson, 1987; Jackson & Dutton, 1988). These include the characteristics of environmental munificence, turbulence/dynamism, and competitiveness (Aldrich, 1979; Dess & Beard, 1984). We will begin with munificent and turbulent (dynamic) environments, which both Dutton and Jackson (1987) and Eisenhardt and Schoonhoven (1990) describe as providing a positive environmental opportunity framing for young firms. We then move on to consider how competitive environments are likely to evoke threatening frames.

### *The Perceived Value of Breadth in Opportunistic Environments*

A firm's environment is likely to be perceived as opportunistic when the firm appears likely to achieve gains and growth (Dutton & Jackson, 1987; Jackson & Dutton, 1988). These growth opportunities are likely to emerge in both munificent and turbulent environments, but for different reasons (Dess & Beard, 1984). *Munificent* environments are defined as environments that have significant resources and support the sustained growth of firms (Dess & Beard, 1984; Romanelli, 1989). Such market conditions cue observers to see the possibilities of gain (Eisenhardt & Schoonhoven, 1990), as growing markets provide a favorable context for the pursuit of new opportunities (Bourgeois, 1980; Dess & Beard, 1984). *Turbulent* environments are defined as environments that have a high rate of change and significant uncertainty (Dess & Beard, 1984; Keats & Hitt, 1988). In contrast with munificent environments, where opportunities are created due to industry growth, turbulent environments create new opportunities (Jackson & Dutton, 1988) that develop from uncertainty (Zahra, 1993) and the displacement of previously entrenched incumbents (Chesborough, 2003). The resulting shift in the competitive landscape specifically favors new entrants (Tushman & Anderson, 1986). As such, both munificent and turbulent environments create a favorable context for new entrants, these environments are more forgiving for the pursuit of new strategies (Zahra, 1993), and they provide excellent conditions for introducing new ideas, business models, and products (Tsai, MacMillan, & Low, 1991).

Using Dutton and Jackson's framework, we expect that potential investors will evaluate new ventures entering such environments through the cognitive lens of opportunity framing. As a result, investors are cued into focusing on the benefits of breadth while discounting its liabilities. Indeed, the key advantages of experiential breadth—more novel recombination in products and business models, wider opportunity recognition, and a more extensive social network—all provide potentially advantageous paths for the new firm to pursue in an

environment that offers strong opportunity sets for new entrants. These paths, which are not available to less broadly experienced teams, provide the venture with clear potential for advantages in such environments (Cliff, Jennings, & Greenwood, 2006) and thus are likely to further enhance the evaluations of potential investors that are already predisposed with an opportunistic cognitive frame. While such a favorable environment is unlikely to completely mitigate the negative influences of experiential breadth on new firms, such as pursuing less focused strategies or engaging in more conflict, on balance, the environment will be perceived by investors as providing a context that is more forgiving for such challenges. Thus, we expect that when the industry a new venture is entering affords the types of positive environment for new ventures that munificent and turbulent environments provide, potential investors will cue in on the potential benefits a broadly experienced founding team can offer and will discount the potential liabilities, such as less focused strategies and potentially higher risk endeavors. We therefore hypothesize the following:

*Hypothesis 2a:* Potential investors will more positively evaluate new ventures led by founding teams with broad experience in high-munificence environments than in low-munificence environments.

*Hypothesis 2b:* Potential investors will more positively evaluate new ventures led by founding teams with broad experience in high-turbulence environments than in low-turbulence environments.

### *The Perceived Liability of Breadth in Threatening Environments*

An organization's environment is likely to be perceived as threatening when there is a strong possibility that the firm will incur losses (Dutton & Jackson, 1987). Threats to a firm can come from a variety of sources, but among the most commonly studied sources of perceived threats are those that originate from a firm's competitive landscape (Sitkin & Pablo, 1992). In this sense, the more intense the competition in an industry, the more threatening a firm's stakeholders tend to perceive the environment (Sutcliffe, 1994). Further, the degree of competition dramatically shapes stakeholder views of firm strategy, resource deployment, and survival (Aldrich, 1979; Duncan, 1972).

Although the intensity of competition in an industry influences all firms, the threat of potential competition is particularly salient for new entrants in an industry (Carroll & Swaminathan, 2000). This is because new ventures typically face competition and the prospect of powerful incumbents without the benefit of established market share, products, or reputation (Caves, 1998). Highly competitive industries are often also concentrated in that they are constituted by a set of a few heavily resourced and established firms that hold dominant market share positions and pricing oligopolies, making them very difficult to infiltrate. Highly competitive industries are challenging to new entrants (McDougall, Robinson, & DeNisi, 1992) and threatening to investors whose wealth is at risk. Porter (1991) went so far as to argue that entry into markets with substantial rivalry is ill advised because the profit potential in such markets is not promising. As a result, it is likely that highly competitive environments will be perceived as threatening to potential investors in such firms.

Investors perceive highly competitive markets as threatening and generally lower their baseline levels of investment (Mason & Harrison, 1996). However, we argue that beyond this lower baseline level of investment, the threatening nature of these environments also cues potential investors to increasingly attend to the negative aspects of experience breadth. Thus,

rather than being persuaded by the benefits of experience breadth espoused previously (e.g., creative recombination, opportunity recognition, wider social network), potential investors are more likely to assess the founding team's experience breadth as a precursor to a lack of strategic focus, team conflict, and slowed decision-making processes. This occurs because, as Jackson and Dutton (1988) argued, threatening environments lead individuals, in this case, investors, to make decisions that minimize their risk of loss. These external threats can create a certain rigidity in decision makers that biases them toward risk minimization (Levine, Resnick, & Higgins, 1993; Pally, 1955; Staw, Sandelands, & Dutton, 1981). In their attempts to minimize the risk associated with a new venture in a threatening environment, we expect potential investors to see experience breadth as a liability in their risk minimization efforts. Rather, they will likely favor teams that are likely to engage in a more restricted information search (Keinan, 1987), conservative and focused thinking (Staw & Ross, 1980), and ultimately less risky decision making (Chattopadhyay, Glick, & Huber, 2001). Because this preference for focused managerial attention in threatening environments (Cameron, Whetton, & Kim, 1987) is in direct contradiction to the effects of experience breadth, potential investors will fixate more on the negative elements of breadth than the positive features of such experience. Therefore, we hypothesize the following:

*Hypothesis 3:* Potential investors will more negatively evaluate new ventures led by founding teams with broad experience in highly competitive environments than in less competitive environments.

## Method

To evaluate these hypotheses, we collected data from 168 business plans that were submitted to a business plan competition and investor conference over a 9-year period (2002–2010) at a large midwestern university in the United States. A mix of students, faculty, alumni, and others submitted business plans to this competition with the hope of gaining investor support for their early-stage ventures. Founding teams in this competition averaged over 12 years of industry experience and competed for both prize money and major investment. Ventures in the competition had generated less than \$500,000 in cumulative revenues, had received less than \$500,000 in external financing, and had been in operation for less than 3 years or had not yet launched.

Over the 9 years in our sample, ventures received hundreds of thousands of dollars in prize money from the competition itself and over \$75 million in direct investment from investors who held an investor conference in conjunction with the competition. Representing the strength of competition among the ventures, over 50% of the teams had at least one member who had previously launched an entrepreneurial venture. The founding team sizes in our sample ranged from one to eight members, with an average founding team size of 3.4 members. Although not a perfect proxy for age or development of these ventures, the average amount of cash in hand held by the new ventures prior to the competition averaged just over \$50,000 in our sample, with 61% having zero cash in hand. In line with this, 48% of our sample had a formal board of advisors, another proxy for the degree of venture development.

The competition took place in three rounds of judging, reducing an average of more than 75 business plans to a smaller pool of semifinalists in the second round and to a select group of finalists in the last round. For our sample, we included only the semifinalists in the business plan competition, which excluded lower-quality first-round submissions. The number of

semifinalists varied from year to year, ranging from 10 to 48 in different years (averaging 21 per year). The variance in semifinalists reflected variability from year to year in the number of plans that were viewed to be of sufficient quality to have significant investment potential. After the competition, the potential investors convened together in an investment conference to discuss all of the plans they had evaluated through the course of the competition. These potential investors then determined which of the plans they were interested in providing seed funding to and proceeded with individual and network investments into some ventures.

Our use of business plans in this research provided several unique and valuable benefits. First, the articulation of new-venture strategy in a business plan is viewed as one of the most important steps in launching a new venture (Sandberg, 1986) and is the critical focus point for early-stage financial investors (Kuratko & Hodgetts, 2001: 289; Mason & Harrison, 1996). Thus, these documents are likely to be the single largest source of information for investor evaluations (Smith & Smith, 2000). Our use of business plans also allowed for the examination of a wide range of business ventures entering into a variety of industries. The 168 ventures studied in this research project represented 95 industries, ranging from landscaping services (Standard Industrial Classification [SIC] 0782) to commercial physical and biological research and development firms (SIC 8731). Using a wide array of industries enabled us to examine the role of founding teams broadly (Beckman et al., 2007). The use of business plans also provided us with a consistent and reliable source of information across ventures about new-venture strategy, the past experience of the founding team members, and potential investor perceptions of these ventures.

For our research, trained research assistants who were blind to the hypotheses coded each business plan. At least two research assistants independently identified and coded the variables of interest in each business plan, using coding rules described further in the following section. These independent evaluations were then merged into a single spreadsheet, and a new research assistant was used to reconcile the coded information provided by the independent coders. When the coders were in agreement, the results were recorded in the final spreadsheet as such. If any disagreement was found during the reconciling stage, the reconciler returned to the business plan to make a final decision on the variable of interest. To assess the integrity of process, multiple reconcilers analyzed approximately 10% of the plans. Final agreement between reconcilers was 100%. We also calculated the Perreault and Leigh (1989) reliability index for our nominal variables and intraclass correlations (ICC) ICC(1) and ICC(2) for our continuous variables. The results of these agreement score calculations are reported in our description of each coded variable (below) and provided strong evidence of agreement in the coding of the data. The Perreault and Leigh index incorporates an adjustment for chance agreement and focuses on the underlying reliability instead of the joint probability of agreement (C. Miller, Cardinal, & Glick, 1997). These calculations were made to ensure that the reconcilers dealt with high levels of agreement in the data provided by the coders.

In addition to information directly from the business plans, data were collected from the founding team members, potential investors, and Compustat. Submissions to the business plan competition required participants to submit résumés or experience biographies for each member of the founding team. These experience histories allowed for the triangulation of the experiences that the founding team members brought to their venture. Finally, an average of five potential investors conducted complete evaluations of each business plan and venture.

These evaluations represented the basis for our assessment of potential investor perceptions about each venture.

### *Dependent Variable*

*Potential investor evaluations (averaged).* Potential investors who served as judges in the business plan competition evaluated each business plan. This dependent variable is similar to other dependent variables from the literature, such as analyst evaluations (e.g., Westphal & Clement, 2008) and Tobin's Q (e.g., Kor & Mahoney, 2005), in that they reflect expectations—anticipation of future performance—rather than actual demonstrated performance. For our work, which focuses on the influence of cognitive biases associated with evaluations made in different contextual environments, such expectations serve as a key manifestation of such biases. The judges for the competition came from an established potential investor network consisting of 285 angels, venture capitalists, bankers, successful executives, and entrepreneurs from a wide variety of industries, ranging from health care and manufacturing to technology and finance. To be part of the potential investor network and evaluate business plans, judges were required to have prior experience either starting or managing entrepreneurial-oriented ventures or supporting new business development in professional roles (venture capital fund manager, lawyer, banker, etc.). Forty-three percent of the potential investor-judges came from equity funds, banks, or other financial groups; 33% were Securities and Exchange Commission–accredited angel investors; and the remaining 24% were former company founders and executives.

Investor-judges were assigned to each business plan based on each investor's specific industry expertise. Investors were individuals who had potential interest in investment opportunities from the competition, particularly in their industries or areas of expertise. Each venture was evaluated by at least three investors with industry-specific expertise and background (ranging from three to 10 judges in our sample, with a mean of 4.99 evaluators per venture and a standard deviation of 1.11). Each investor was asked to consider five core business model factors in each venture before making a single overall evaluation: (a) each venture's market value proposition, (b) the venture's scalability, (c) the venture's revenue model, (d) the competencies and experience of the management-launch team, and (e) venture sustainability. Importantly, we conducted supplemental analyses on fine-grain data on the judges' assessments of all five factors (including the competencies and experience of the management-launch team) as well as the judges' overall evaluation for a subsample of 60 of our 168 ventures, and we found a large correlation (Cohen, 1988) between the competencies and experience of the management-launch team and overall judges' evaluations ( $r = .64$  for all individual judges scores for all plans, and  $r = .73$  for aggregated judges scores to the plan level). This provided evidence that the competencies and experience of the management-launch team was one factor that potential investors weighed heavily in their overall evaluations.

A potential concern when using individual judging data is the possibility that some evaluators would provide assessments that are inordinately harsh while others would be overly lenient. In order to adjust for potential individual tendencies toward stringency or leniency, each evaluation was adjusted to take into account each judge's historical average rating tendencies. Adjustments were based on up to 10 years of data collected on each of the potential

investor's prior evaluations. The final adjusted evaluations from each potential investor were averaged together to form an overall average and then standardized, as the scaling format changed slightly over the 9-year span for our data.

To assess the reliability of our investor ratings, we calculated ICC(1) and ICC(2). ICC(1) and ICC(2) provide an index of both interrater agreement and interrater reliability to justify aggregation (LeBreton & Senter, 2008). ICC(1) is typically interpreted as a measure of effect size (Bliese, 2000; Bryk & Raudenbush, 1992), and for ICC(2), a cutoff of .60 is recommended (Bliese, 2000; Glick, 1985). Kozlowski and Klein (2000) suggest that aggregation is justified if the  $F$  test for ICC(1) is significant. For our investor evaluation scores, ICC(1) = .32 and ICC(2) = .70 ( $F = 3.36, p < .01$ ), providing justification for aggregation.

### *Independent Variables*

*Breadth of founding team experience.* The breadth of experience held by members of each founding team was assessed as the cumulative qualitative count of the combined experiences within the team. Using count measures to assess breadth is consistent with past operationalizations of experiential breadth in the literature (see Table 1; e.g., Beckman & Burton, 2008; Gruber, 2010; Leiponen & Helfat, 2010) and helps to overcome challenges in measurement associated with ratio variables (Wiseman, 2009). As indicated above, we utilized five indicators of experiential breadth in our study. The first was an indicator of functional breadth. This measure consisted of a cumulative count of the number of unique functional experiences the founding team members had represented in their previous endeavors. These functional experiences included past working experiences in the following categories: sales experience, legal experience, finance experience, advertising/marketing experience, accounting experience, direct management experience, information technology experience, or human resources experience. Thus, this measure could range from zero to eight, and the average in our sample was 3.71 ( $SD = 2.21$ ). The Perrault and Leigh (1989) reliability for functional breadth across coders was .87. The second indicator of experiential breadth we assessed was educational breadth. This measure consisted of a count of the specific educational qualifications (classes taken, degrees received, certifications, etc.) in each of the same eight categories. This measure again could range from zero to eight and averaged 2.72 ( $SD = 1.85$ ) in our sample. The Perrault and Leigh reliability for educational breadth across coders was .88. The third indicator of breadth we assessed was entrepreneurial breadth. We measured this with a count of the total number of prior venture launches experienced by any member of the founding team. Although serial entrepreneurial experience has sometimes been described in prior research as an indicator of experience depth, based on our framework, a count-based representation of exposure to previous new ventures actually fits more clearly with the ethos and our definition of experiential breadth. For example, depth measures are best associated with the quantification of a volume or time construct (Tesluk & Jacobs, 1998), whereas a count of the number of prior ventures that members of a founding team have been involved with is more of an indicator of exposure to qualitatively unique contexts/experiences rather than a volume- or time-based form of the construct. The average entrepreneurial breadth in our sample was .98 ventures ( $SD = 1.01$ ). For entrepreneurial breadth, ICC(1) = .53 and ICC(2) = .72 ( $F = 3.55, p < .01$ ), indicating agreement across coders. The fourth indicator of breadth we assessed was organizational breadth. This measure was a count of the number

of different organizations that had previously employed members of the founding team. The average organizational breadth in our sample was 1.69 organizations ( $SD = 1.55$ ). For organizational breadth,  $ICC(1) = .76$  and  $ICC(2) = .88$  ( $F = 8.37, p < .01$ ), indicating agreement across coders. Finally, we coded for and assessed industrial breadth as a final indicator of the founding team's breadth of experience. This measure was a count of different industries (i.e., Global Industry Classification Standard [GICS] codes) that members of the founding team had previously worked. The average industrial breadth in our sample was 2.16 industries ( $SD = 1.27$ ). As we describe in the Analysis section below, we use these five measures of breadth as indicators that contribute to an overall latent breadth factor.

### *Moderator Variables*

*Environmental munificence, turbulence, and competitive concentration.* We assessed the environment faced by each new venture using archival industry data from Compustat. Following conventional standards in the strategy literature, munificence was assessed as the recent growth in sales in each industry. It was measured as the regression slope coefficient for industry sales during the 5-year period prior to the start of each venture (Dess & Beard, 1984). Turbulence (dynamism) was operationalized as the volatility in industry sales, as indicated by the standard error of the 5-year regression coefficient for each respective industry in our study. The competitive concentration dimension of the environment was measured as the density of competition in each industry using the Herfindahl-Hirschman Index (Acar & Sankaran, 1999). This approach assesses the degree of market concentration among the 50 largest firms in an industry by summing the squared market shares for each of these firms. Higher values indicate higher industry concentration and thus a less favorable environment for new entrants.

### *Control Variables*

To account for the potential influence of additional factors in our models, we controlled for a range of likely influences on potential investor evaluations. In particular, research has shown that TMT characteristics (Foo, Wong, & Ong, 2005), industry characteristics (Mason & Harrison, 1996), and specific business plan characteristics (Mason & Stark, 2004) could each influence investor evaluations. To partial out these potential influences, we included these factors as controls in our analysis. Additionally, our analysis could potentially be confounded by strategic breadth. Specifically, strategic breadth is likely related to both founding team breadth and potential investor evaluations. Therefore, we also control for several strategic breadth variables in our primary analysis and test the possibility of strategic breadth as a mediator of our moderated effects in supplemental analyses.

*Founding team experience depth.* As noted in our literature review, experience depth has a strong precedent in the literature as a powerful factor for new ventures. Mirroring our conceptualization of breadth, we measured depth of experience using five indicators of depth of experience: functional, educational, entrepreneurial, organizational, and industrial. Functional depth was measured by capturing the average number of years of experience each team member worked in his or her deepest functional area. Educational depth was assessed with the total number of master degrees on the team. Entrepreneurial depth was measured by

capturing the average number of years of experience each team member worked in launching prior entrepreneurial ventures. Organizational depth was assessed as the average number of years of experience each team member worked in the organization in which they had the longest tenure. Industrial depth was measured by the average number of years of industry experience held by members of the founding team. An additional benefit of controlling for depth of experience is that it also serves as a proxy for the average age and professional maturity level of the founding team, as it includes the relevant years of each member's professional life.

*Other founding team characteristics.* In terms of TMT characteristics, research has shown that team size (Kirsch, Goldfarb, & Gera, 2009), levels of education (Franke, Gruber, Harhoff, & Henkel, 2008), founding team gender composition (Bigelow, Lundmark, McLean Parks, & Wuebker, 2014), and industry experience depth (Cooper et al., 1994) can each influence investor perceptions of ventures. To control for these factors, we included team size, whether the founding team included a member with an MBA degree, founding team gender composition, and team experience depth as controls in our analyses. Team size was measured as the number of founding team members that were explicitly mentioned in the business plan and experience biographies ( $M = 3.36$ ,  $SD = 1.54$ ). Any MBAs on team was assessed with a dichotomous indicator of whether anyone on the TMT had an MBA degree. Sixty percent of founding teams had a member with an MBA degree. Founding team gender composition was dummy coded into three categories: primarily male TMTs, equally balanced gender partnerships, or primarily female TMTs. In this sample, 12% of the ventures were founded primarily by women teams, 19% of the ventures were founded by equal-gender partnerships, and 69% of the ventures were founded by primarily male teams.

*Industry characteristics.* We controlled for the influence of each of our proposed industry-level moderators. This allowed us to partial out the baseline influence of munificent, turbulent, and competitive industry characteristics on evaluations. In addition to these core proposed industry-level moderators, capital intensity can also play a role in investor perceptions due to the potentially heavy investment needed for success and increased difficulty of new venture survival (Wagner, 1994). We therefore controlled for this effect by calculating the capital intensity in the industry that the new venture would be entering into. We also controlled for the profitability of the industry because this is a key factor likely to impact investor evaluation. We controlled for this effect by calculating the average return on assets (ROA) for the industry that the new venture would be entering into. We used Compustat data for both the capital intensity and average industry ROA measures and calculated each using the 5-year window prior to the venture's entry to the business plan competition. We also included dummy codes for the nine GICS codes included in the sample. In order to aid in the presentation of results and preserve degrees of freedom, we utilized the block variable approach recommended by Edwards and Cable (2009) to convert the nine GICS codes variables (eight dummy codes) into one linear composite block variable. Specifically, after estimating our model, we created a block variable by multiplying the estimated path coefficients for each of the GICS dummy codes with the raw data for the dummy codes in order to obtain one weighted linear composite. The variance explained by the GICS block variable in the equation is exactly equal to the total variance explained by all of the individual GICS codes in the original analysis (Edwards & Cable, 2009; see also Lambert, Tepper, Carr, Holt,



& Barelka, 2012; Matta, Scott, Koopman, & Conlon, 2015). Thus, all of the path estimates are identical across the two analyses.

*Business plan characteristics.* We controlled for plan length, number of investors evaluating the venture, business age, cash in hand, size of the venture's board of advisors, whether the venture is more product focused or service focused, and any intentions the founders might have to strategically outsource key business functions. Plan length was measured simply as the number of pages of the plan. The average plan length in our sample was 30.70 pages ( $SD = 9.96$ ). As described in the Dependent Variable section, the average number of investors evaluating each venture was 4.99 ( $SD = 1.11$ ). The business age was assessed as the number of years since the business began operations, ranging from 0 years (prelaunch) to 3 years. The average age was .29 years ( $SD = .45$ ). Cash in hand was assessed as the amount of cash that the venture had at the time of submission ( $M = \$50,336$ ,  $SD = \$228,564$ ). The size of the venture's advisory board was assessed as the total number of board of advisors referenced in the business plan. The average size of the board of advisors in our sample was 1.52 ( $SD = 2.25$ ). The product focus versus service focus of the firm was assessed on a 1-to-5 scale ranging from 1 = *solely product focused* to 5 = *solely service focused* ( $M = 2.75$ ,  $SD = 1.58$ ). The potential for strategic outsourcing of key business functions was coded with a dichotomous indicator (0/1) to assess whether the founders intended to outsource key parts of their business. Thirty-three percent of ventures intended to strategically outsource. We also included dummy codes for the 9 years included in the sample. In order to aid in the presentation of results and preserve degrees of freedom, we utilized the block variable approach recommended by Edwards and Cable (2009) to convert the 9-year codes variables (eight dummy codes) into one linear composite block variable.

*Strategic breadth.* We controlled for six strategic breadth indicators: upstream/midstream/downstream in the value chain, whether the product(s) and service(s) drew on multiple technologies, revenue stream count, product count, alliance count, and exit count. Upstream/midstream/downstream variable was coded based on Harrigan's (1985) framework using a 7-point scale (1 = ultra-raw materials [upstream], 2 = processed or fabricated materials [upstream], 3 = fabricated components [upstream], 4 = midstream assembly [midstream], 5 = incorporation in assembled products [downstream], 6 = marketing services [downstream], and 7 = distribution activities [downstream]). The average in our sample was 3.78 ( $SD = 1.92$ ). The use of multiple technologies was measured by whether the products or services offered by the organization drew on multiple technologies. Revenue stream count was assessed as the count of potential revenue streams mentioned in the business plan ( $M = 1.63$ ,  $SD = .99$ ). Product count was measured by the count of potential products mentioned in the business plan. The average product count in our sample was 2.12 ( $SD = 2.53$ ). Alliance count was assessed as the number of long-term strategic alliances discussed in the business plan ( $M = 2.02$ ,  $SD = 2.89$ ). Finally, exit count was assessed as the number of exit strategies discussed in the business plan. The average number of exit strategies in our sample was .83 ( $SD = 1.07$ ).

### *Data Analysis*

We tested the hypothesized relationships among experiential breadth, munificence, turbulence, competitive concentration, and potential investor evaluations using structural equation

modeling (SEM) in Mplus 7.0 (Muthén & Muthén, 2010). SEM is particularly suitable to test the hypothesized relationships because our measures include both observed measures (i.e., munificence, turbulence, competitive concentration, and potential investor evaluations) and an abstract concept of experiential breadth (consisting of multiple indicators; Cho & Pucik, 2005). In our model, we specified functional breadth, educational breadth, industrial breadth, organizational breadth, and entrepreneurial breadth as indicators of an overall latent breadth factor, such that each breadth component loads onto this latent variable only by how much variance it explains in the latent construct (based on covariances between the breadth components). In employing this technique, our latent breadth variable specifically and narrowly reflects the breadth construct that we are theorizing about rather than the more varied mechanisms potentially analyzed if each breadth measure were considered separately. In the model, we included munificence, turbulence, competitive concentration, potential investor evaluations, and controls as observed measures. Because our hypotheses included interactions between a latent breadth factor and observed environmental variables, we used the “XWITH” option in Mplus 7.0 to specify the modeling of an interaction including a latent variable (Muthén & Muthén, 2010). When creating an interaction term that includes a latent variable, Mplus does not generate standard fit indices (e.g., chi-square test of model fit, comparative fit index [CFI], standardized root mean square residual [SRMR]; Boh & Wong, 2015). However, prior to testing our hypotheses, we conducted a confirmatory factor analysis (CFA) to assess the fit of our breadth measures (i.e., functional breadth, educational breadth, industrial breadth, organizational breadth, and entrepreneurial breadth) as indicators of the overall latent breadth factor.

## Results

Table 2 contains descriptive statistics and correlations for all study variables. For clarity in interpretation, the means and standard deviations reported in Table 2 are unstandardized (with the exception of the overall investor rating as described above). We used standardized *z* scores of our measures in the analyses because it is recommended that centered variables be used in SEM analyses.

We first used Mplus to perform a CFA to examine whether the five breadth measures (i.e., functional breadth, educational breadth, industrial breadth, organizational breadth, and entrepreneurial breadth) loaded onto the overall latent breadth factor and to assess the fit of this model. The model provided acceptable fit to the data (Hu & Bentler, 1999) as the model had a  $\chi^2(5) = 11.96$  ( $p = .04$ ), SRMR = .04, and a CFI = .97. In regard to factor loadings, all five indicators significantly loaded onto the overall breadth measure at  $p < .01$  (functional breadth,  $\beta = .88$ ; educational breadth,  $\beta = .77$ ; industrial breadth,  $\beta = .69$ ; organizational breadth,  $\beta = .29$ ; and entrepreneurial breadth,  $\beta = .41$ ). We discuss the implications of our CFA analysis in more detail in the Discussion.

Additionally, to ensure that depth and breadth were distinct constructs, we also conducted a CFA that compared our theorized model (i.e., five indicators of breadth and five indicators of depth) to an alternative model in which all of the indicators of experience loaded onto one experience factor. For both of the CFA models, because each indicator of breadth shared overlapping theoretical content with one indicator of depth (e.g., functional breadth and functional depth share an overlapping theoretical content domain, representing a design-driven relationship between indicators; Cole, Ciesla, & Steiger, 2007), we allowed the residuals of the

**Table 2**  
**Descriptive Statistics and Correlations**

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
1. Capital intensity	0.20	0.18	—																																	
2. Industry ROA	-2.34	15.91	-0.01	—																																
3. Business age	0.27	0.45	0.04	0.06	—																															
4. Team size	3.39	1.59	-0.07	-0.04	-0.01	—																														
5. Strategic outsourcing	0.32	0.47	-0.07	0.05	0.00	0.11	—																													
6. BOA size	1.56	2.36	0.08	0.06	0.06	-0.01	0.00	—																												
7. Plan length	30.67	10.02	-0.01	0.05	0.15	0.03	0.03	0.25	—																											
8. If female management	0.12	0.32	0.01	0.05	-0.06	-0.04	0.06	0.08	0.06	—																										
9. If mixed management	0.19	0.39	-0.01	-0.02	-0.09	0.12	-0.07	0.04	-0.11	-0.18	—																									
10. Any MBAs on team	0.55	0.50	-0.01	-0.09	0.01	0.17	-0.05	0.13	0.02	-0.11	-0.04	—																								
11. Up-/mid-/downstream	3.80	1.92	0.01	0.07	-0.01	0.02	-0.15	-0.01	0.05	0.04	0.10	-0.12	—																							
12. Cash in hand	48238.74	214172.20	0.09	0.00	0.36	0.14	-0.02	0.09	0.02	-0.07	0.06	0.11	-0.06	—																						
13. Revenue stream count	1.64	0.99	-0.15	0.04	-0.06	0.14	-0.09	-0.01	0.26	-0.11	0.08	-0.01	0.20	-0.02	—																					
14. Product count	2.08	2.49	0.21	0.04	-0.11	-0.04	-0.01	0.08	0.09	0.00	-0.07	0.14	-0.05	0.11	—																					
15. Alliance count	2.01	2.89	-0.05	0.05	0.08	0.16	0.11	0.21	0.05	0.01	0.00	0.15	0.05	0.27	0.11	-0.06	—																			
16. Exit count	0.79	1.06	-0.06	-0.01	0.07	0.01	0.09	0.03	0.25	-0.17	-0.18	0.25	-0.10	0.14	0.09	-0.11	0.08	—																		
17. Multiple technologies	0.53	0.50	-0.12	-0.08	-0.12	0.01	0.17	-0.06	0.20	0.02	0.02	-0.01	-0.15	-0.03	0.07	0.10	0.02	0.12	—																	
18. No. of investor evaluations	4.99	1.07	-0.19	0.00	-0.02	0.02	0.08	-0.03	0.06	0.03	0.11	-0.03	0.08	0.06	0.18	0.06	0.14	0.14	0.16	—																
19. Product versus service	2.78	1.60	-0.07	0.08	-0.02	0.02	-0.10	-0.03	0.02	0.04	0.08	-0.07	0.91	-0.06	0.20	0.09	0.10	-0.06	-0.08	0.11	—															
20. Munificence	0.00	0.13	-0.01	-0.01	-0.02	0.07	-0.15	-0.05	-0.07	-0.21	0.04	0.04	0.09	-0.07	0.05	0.05	-0.04	0.03	-0.09	-0.06	0.11	—														
21. Turbulence	0.04	0.04	-0.06	0.01	0.08	-0.11	0.10	0.17	0.12	0.07	-0.03	-0.05	-0.13	-0.06	-0.07	-0.04	-0.01	-0.06	-0.04	0.01	-0.08	-0.54	—													
22. Competitive concentration	0.26	0.21	-0.12	0.07	0.07	-0.08	-0.05	0.01	0.00	0.11	0.06	-0.11	-0.12	-0.12	-0.01	-0.02	-0.06	-0.17	-0.13	-0.01	-0.09	-0.21	0.49	—												
23. Functional depth	8.23	7.35	-0.02	-0.18	0.09	0.12	0.02	0.08	0.04	-0.09	-0.18	0.18	-0.15	0.06	0.00	0.05	-0.11	0.16	0.04	0.01	-0.11	0.04	0.13	0.09	—											
24. Educational depth	1.67	1.53	-0.07	-0.08	0.02	0.47	0.15	0.10	-0.01	-0.06	-0.05	0.62	-0.12	0.05	0.02	-0.07	0.18	0.00	-0.10	-0.08	0.22	-0.09	-0.18	0.27	—											
25. Industrial depth	1.74	1.32	-0.03	-0.03	-0.01	0.45	0.07	0.22	0.11	-0.04	-0.05	0.12	-0.07	0.06	0.21	0.00	0.20	0.14	0.09	0.01	-0.09	0.10	-0.13	-0.25	0.09	0.29	—									
26. Organizational depth	8.24	7.53	0.01	-0.17	0.00	0.15	0.03	0.09	0.05	-0.06	-0.18	0.19	-0.11	0.09	0.10	0.14	-0.11	0.18	0.04	-0.03	-0.08	0.03	0.12	0.04	0.86	0.22	0.10	—								
27. Entrepreneurial depth	1.52	2.62	0.05	0.04	-0.06	0.02	-0.03	0.09	0.09	-0.06	-0.11	0.06	-0.02	-0.07	0.02	0.23	-0.04	0.04	-0.12	-0.03	0.08	0.01	-0.02	0.16	0.07	0.11	0.25	—								
28. Functional breadth	3.67	2.21	-0.15	-0.07	-0.02	0.48	0.00	0.07	0.20	-0.16	-0.03	0.36	0.00	0.12	0.09	0.11	0.07	0.21	0.18	0.03	0.06	0.02	-0.10	-0.18	0.13	0.47	0.25	0.14	0.14	—						
29. Educational breadth	2.69	1.84	-0.10	-0.02	0.00	0.34	0.04	0.10	0.19	-0.06	-0.07	0.44	-0.09	0.06	0.04	0.00	0.08	0.20	0.14	-0.06	-0.08	0.03	-0.13	-0.21	-0.01	0.50	0.25	0.00	0.04	0.69	—					
30. Industrial breadth	2.15	1.27	-0.05	-0.12	-0.09	0.36	0.00	0.19	0.23	-0.12	-0.03	0.25	-0.07	0.16	0.07	0.08	0.06	0.16	0.17	-0.11	-0.04	0.09	-0.10	-0.13	0.17	0.30	0.17	0.22	0.01	0.60	0.50	—				
31. Organizational breadth	1.66	1.53	0.03	0.02	-0.01	-0.18	-0.01	0.25	0.25	0.02	-0.25	0.13	0.00	-0.05	0.04	0.15	-0.01	0.25	0.01	-0.01	0.04	0.15	-0.12	-0.14	0.11	0.11	0.13	0.12	0.09	0.23	0.20	0.35	—			
32. Entrepreneurial breadth	0.98	1.08	0.06	0.01	-0.01	0.38	-0.02	0.12	0.10	-0.08	0.04	0.13	-0.07	0.05	0.04	0.10	0.16	0.06	0.00	0.04	-0.08	0.04	-0.14	-0.04	0.03	0.19	0.21	0.04	0.26	0.34	0.33	0.34	0.08	—		
33. Potential investor evaluation	0.00	0.97	0.05	0.00	0.05	0.17	0.14	0.11	0.32	-0.02	-0.03	0.27	-0.03	-0.03	0.05	0.00	0.14	0.22	0.02	0.08	-0.03	0.01	0.01	0.00	0.11	0.18	0.25	0.15	0.07	0.15	0.22	0.17	0.11	0.15	—	

*Note:* *N* = 168 ventures. ROA = return on assets; BOA = board of advisors. Correlations greater than 0.15 are significant at  $p < .05$ .

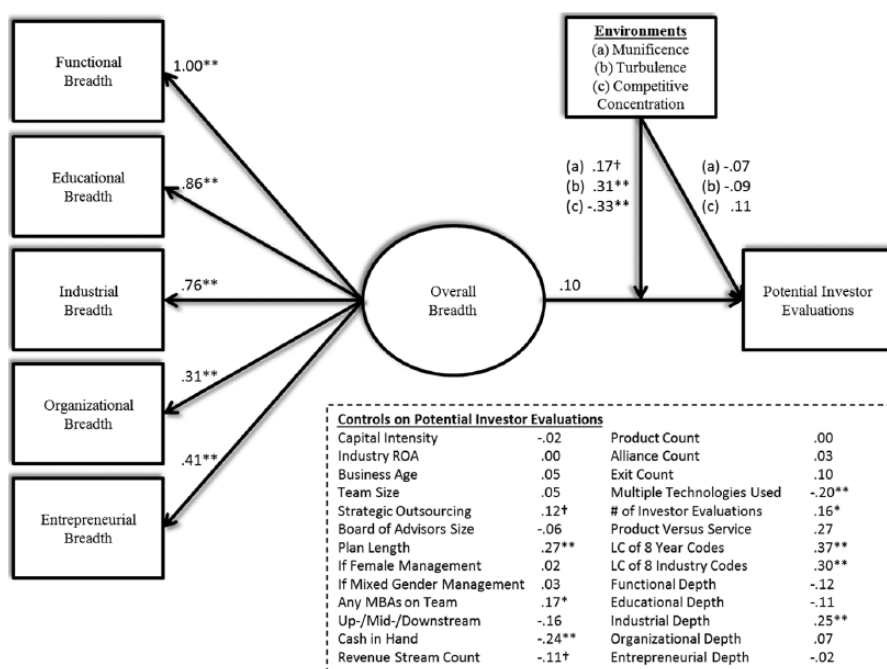
parallel indicators to covary. The results of the CFA analyses revealed that the two-factor model,  $\chi^2(29) = 89.03$ , *ns* (SRMR = .10, CFI = .88), provided superior fit to the data,  $\Delta\chi^2(1) = 144.91$ ,  $p < .01$ , relative to the one-factor model,  $\chi^2(30) = 233.94$ , *ns* (SRMR = .11, CFI = .60), demonstrating that breadth and depth are best operationalized as distinct constructs in our data. That said, although our CFA for breadth reported above showed good fit to the data,  $\chi^2(5) = 11.96$ ,  $p = .04$  (SRMR = .04, CFI = .97), our fit indices for the two-factor breadth and depth model,  $\chi^2(29) = 89.03$ , *ns* (SRMR = .10, CFI = .88), exhibited relatively more misfit. The main reason for this appears to be that although all of the depth indicators loaded significantly on the latent depth factor at  $p < .05$  (functional depth,  $\beta = .92$ ; educational depth,  $\beta = .39$ ; industrial depth,  $\beta = .17$ ; organizational depth,  $\beta = .94$ ; and entrepreneurial depth,  $\beta = .25$ ), they did not load onto the depth factor as cleanly as the breadth indicators onto the breadth factor. As such, considering that the depth factor structure was not central to our predictions, we controlled for each of the depth indicators separately in our analysis. We note that our results were qualitatively identical when we reran the model using a depth latent factor. We also note that for the two-factor model, the breadth and depth factors were correlated at  $r = .32$  ( $p < .01$ ). In other words, despite their overall distinctiveness, the correlation between the breadth and depth factors was a medium-sized effect (for correlations, .10 is a small effect size, .30 is a medium effect size, and .50 is a large effect size; Cohen, 1988).

Figure 1 provides the results of our primary analysis. Many of the control variables influenced investor evaluations in the anticipated direction. In particular, depth of industry experience appears to have a moderate positive effect on investor evaluation, confirming findings from past empirical work. Hypothesis 1 predicted that breadth of experience would be positively associated with investor evaluation. Our analyses did not provide support for this hypothesis. As shown in Figure 1, the main effect of the overall breadth factor on investor evaluation was not significant ( $\beta = .10$ , *ns*).

Considering the interactive effects of experiential breadth with opportunistic environments, Hypothesis 2 predicted that the relationship between experiential breadth and investor evaluations would be positively moderated by munificent (Hypothesis 2a) and turbulent (Hypothesis 2b) environments such that the relationship between experiential breadth and investor evaluations would be more positive in more munificent (Hypothesis 2a) and turbulent (Hypothesis 2b) environments and less positive in less munificent (Hypothesis 2a) and turbulent (Hypothesis 2b) environments. As shown in Figure 1, the coefficient for the interaction between the overall breadth factor and munificence was positive and marginally significant ( $\beta = .17$ ,  $p < .10$ ), and the coefficient for the interaction between the overall breadth factor and turbulence was positive and significant ( $\beta = .31$ ,  $p < .01$ ). To help illustrate the nature of these interactive effects, plots of these interactions are presented in Figure 2. As displayed in Figure 2, the form of the interactions is consistent with the hypothesized pattern. In sum, the results predominantly support Hypothesis 2.

Hypothesis 3 predicted that the relationship between experiential breadth and investor evaluation would be negatively moderated by competitive concentration such that the relationship between experiential breadth and investor evaluations would be more negative in more competitively intense environments and less negative in less competitively intense environments. As shown in Figure 1, the coefficient for the interaction between the overall breadth factor and competitive concentration was negative and significant ( $\beta = -.33$ ,  $p < .01$ ). To help illustrate the nature of this interactive effect, the interaction plot is presented in Figure 2. As displayed in Figure 2, the form of the interaction matches the hypothesized pattern. Thus, our results support Hypothesis 3.

**Figure 1**  
**Structural Equation Modeling Results**



Note:  $N = 168$  ventures.

† $p < .10$ .

\* $p < .05$ .

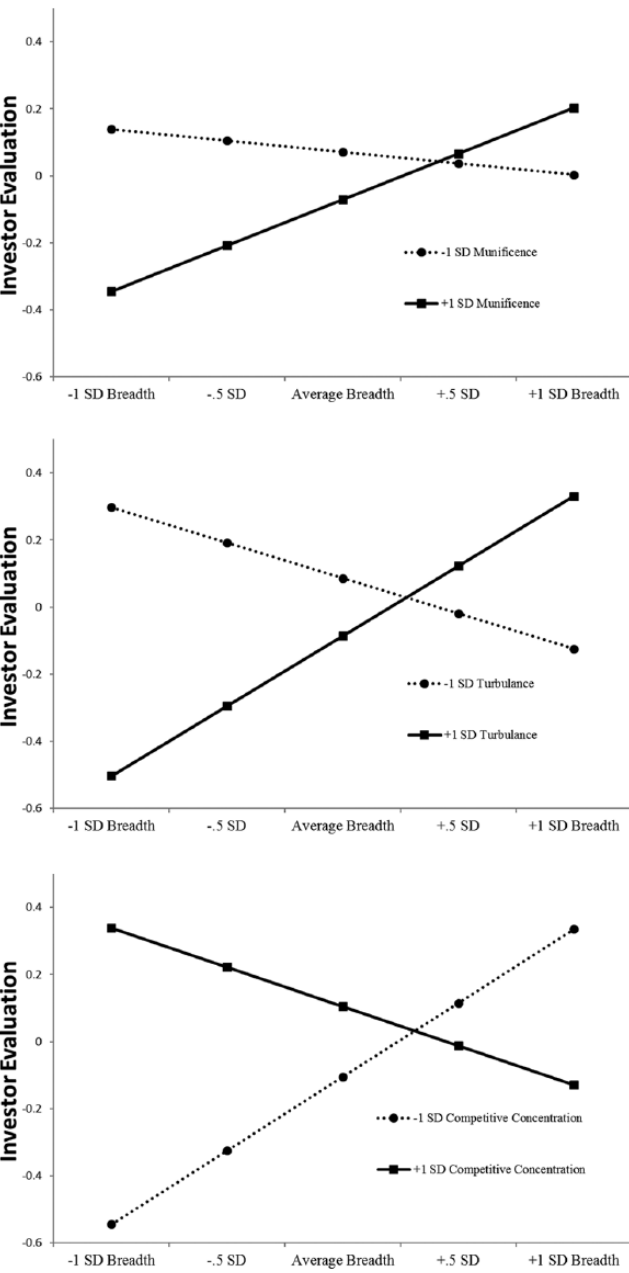
\*\* $p < .01$ .

## Discussion

Returning to the overall goals of this paper, our research shows that investor perceptions of founding team breadth vary considerably under different environmental conditions. We build our theory around the tension that experiential breadth can be perceived to be a “double-edged sword”: On one hand, breadth can enable creative recombination (Fleming, 2004), allow opportunity recognition (Gruber, 2010; Gruber et al., 2012), and provide helpful social network contacts (Campion et al., 1994; Kelley & Caplan, 1992), while on the other hand, breadth can predispose the TMT to a lack of strategic focus (Crossland et al., 2014; Hambrick et al., 1993), conflict (Simons et al., 1999), and slow decision making (Forbes, 2005). Our hypotheses specifically consider how investors are likely to vary in their evaluations depending upon how the environment in which the venture competes influences their view of breadth—offering a more situated view of experience. Overall, our results show that founding teams with more experiential breadth were evaluated negatively by potential investors in threatening competitive environments but positively in opportunistic munificent and turbulent environments.

Given these provocative findings, we sought to further test a potential mechanism involved in these effects, namely, whether investor evaluations were driven not directly by experiential breadth but rather through the different *strategies* that such teams pursued. We conducted

Figure 2  
Environmental Interactions With Experiential Breadth



supplementary analyses in order to test this possibility (see Supplemental Appendix available online). In line with this idea, we did find that experiential breadth has strong and significant effects on firm strategy. Specifically, ventures with more broadly experienced leaders tended to create more revenue streams (in certain environments) and locate their ventures more upstream in the value chain. However, these analyses also showed that the effects of breadth on investor evaluations were not statistically mediated through such choices. As such, this finding lends support for our theory but leaves open the question of other potential mechanisms for further investigation in future research.

### *Theoretical Contributions*

*Entrepreneurship research.* Reflecting on the contributions of this work, to our knowledge, ours is among the first research to theorize and demonstrate how *more* experience can be a *liability* for founding teams and their new ventures. This liability of breadth, in certain environments, brings to light the conditions under which broad experiences not only may be “not valued” but can actually be perceived as detrimental for organizations. Specifically, we show that for new ventures under competitive environmental conditions, broadly experienced founding teams are perceived as less desirable than less broadly experienced teams. This finding runs counter to the prevailing wisdom in the entrepreneurship literature, in which experience is typically described as a prized asset (Beckman, 2006; Beckman et al., 2007; Foo et al., 2005; Mason & Stark, 2004). Further, this illustrates that the environment in which a firm operates is a key factor that influences the relative value of certain managerial resources. (For our discussion of implications for practitioners, see Supplemental Appendix available online.) More broadly, our work also suggests that researchers who study the influence of founding team characteristics should consider not only the positive value individuals bring but also the situated contexts in which characteristics may actually be perceived as a liability. This highlights the need for more contingent theories in research that better consider the alignment between the experience and talents that executives bring with the circumstances of a firm (Fern, Cardinal, & O’Neill, 2012).

*Experience research.* Further, our work also considers a broader and more inclusive approach to conceptualizing and measuring experiential breadth than has typically been used in prior upper-echelons or entrepreneurship research. As we noted earlier, most prior studies have largely conceptualized only individual elements of breadth in their work, such as functional breadth (e.g., Cannella et al., 2008), educational breadth (e.g., Hambrick, Cho, & Chen, 1996), entrepreneurial breadth (e.g., Burton et al., 2002), or organizational breadth (e.g., Beckman, 2006). By creating a latent breadth construct reflecting five different components of breadth, ours is the first study to quantify and examine the combined effects of multiple dimensions in one study. In doing so, the results of our CFA tell a compelling story regarding the makeup of the latent breadth construct. Specifically, our results show that functional, educational, and industrial breadth load quite strongly onto the latent breadth factor. However, the loadings for organizational and entrepreneurial breadth are quite a bit lower, with the former potentially reflecting individuals who seek similar functions in similar industries but in different organizations while the latter also has a depth component to entrepreneurial individuals with more start-up experience.

Our study also provides some clarity regarding the often complementary but at times competing influences of experiential breadth and depth. We considered these differences specifically in terms of their effect on potential investor evaluations and found that, consistent with our theory, experiential breadth and depth have distinct and varied impacts. Consistent with prior work (e.g., Cooper et al., 1994; Kor, 2003), we find that experience depth has a powerful positive influence on potential investor evaluations. In fact, we find a positive main effect between industrial depth and investor evaluations in our models ( $\beta = .25$ ,  $p < .05$ ) that is not contingent on the firm's environment. Investors seem to universally appreciate such depth, regardless of the firm's situation. In fact, in favorable environments for entrepreneurship (munificent and turbulent environments), our results show that potential investors value *any* kind of experience a founding team can bring to the table. It is only in the more threatening competitive environment where we see evidence of divergence between the perceived value of experience depth and breadth. Further, in supplementary analysis, we were able to show that this differential evaluation of breadth occurs regardless of the depth of experience on the team: Breadth is viewed independently and contextually for both very deeply experienced teams and very inexperienced teams. These are all new ideas for the literature and open the door for more work on situations when traditional strengths may be viewed as liabilities.

*Upper-echelons research.* Importantly, relative to prior work on experience breadth, our study represents a shift from the effects of breadth on internal workings of a management team to the external perceptions of the firm. In doing so, we build theory around a different set of mechanisms than is typically applied to managerial experience, focusing in on the perceptual biases that shape external stakeholder assessments in a given environment. We focused on the cognitive categorization work of Dutton and Jackson (1987) to draw out these mechanisms, which provided us with a novel lens through which to view experience and allowed us to explore a different type of dependent variable than is typically used in this literature. We believe that this shift in focus can be valuable for upper-echelons research moving forward, to explore the effects of a variety of executive individual- and team-level factors on the perceptions of stakeholders.

In addition, our work extends what we know about the factors that drive new-venture strategy, showing that the experiential breadth of the founding team significantly predicts several key elements of early firm strategy. Although we do not find support for mediation between founding team experience and potential investor evaluations through such strategy, our work helps to confidently position TMT experience as a key factor in understanding business strategy, including the firm's positioning in the value stream for its industry and its cultivation of different revenue streams.

## Conclusion

In conclusion, by examining the divergent influences of experience on the evaluations of potential investors, this study helps to advance research on the complex role of founding team experience in organizations. By focusing on the context of evaluations of new ventures by potential investors, we were able to identify key cognitive framing influences in which the perceived value of founding team experience was substantially shaped by the environment facing each firm. Together with other research in this domain (e.g., Beckman, 2006; Fern



et al., 2012; Ucbasaran et al., 2009), our work contributes to a growing stream that is mapping out the multifaceted, often competing, influences of TMT experience.

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