SPECIALISTS, GENERALISTS, OR BOTH?

FOUNDERS' MULTIDIMENSIONAL BREADTH OF EXPERIENCE AND

ENTREPRENEURIAL VENTURES' FUNDRAISING AT IPO

Vangelis Souitaris
Professor of Entrepreneurship
Bayes Business School,
City, University of London
106 Bunhill Row, London EC1Y 8TZ, UK
and
University of St. Gallen,
Dufourstrasse 40a
CH-9000 St.Gallen, Switzerland
v.souitaris@city.ac.uk

Bo Peng
Lecturer in Management
Birkbeck, University of London
Malet Street, Bloomsbury, WC1E 7HX, London
b.peng@bbk.ac.uk

Stefania Zerbinati
Reader in Entrepreneurship
Bayes Business School,
City, University of London
106 Bunhill Row, London EC1Y 8TZ, UK
stefania.zerbinati.1@city.ac.uk

Dean A. Shepherd
Professor of Entrepreneurship
Mendoza College of Business, University of Notre Dame
South Bend, IN
dshepherd@nd.edu

ABSTRACT

Different streams of research have led to contradictory conclusions about the venture performance implications of founders' breadth of experience. While extant empirical studies have explored the performance implications of founders' breadth of experience at the start-up stage, we focus on the later stage of the initial public offering (IPO). We theorize that investors categorize venture founders based on two salient dimensions—their industry and functional background—and we relate this categorization to resource acquisition at IPO. To test our model, we use a hand-collected dataset of 175 entrepreneurial IPOs in the Alternative Investment Market in London (2002–2013) and two randomized experiments. We theorize and find that compared to entrepreneurial ventures with a lead founder specializing in one industry or one function, investors generally devalue those with a category-spanning lead founder (a generalist). However, devaluation is less severe when a lead founder is a generalist in one dimension (e.g., industry) but a specialist in the other dimension (e.g., function). We also theorize and empirically test trust as a mechanism for the generalist penalty. Specifically, audience members (investors) have low trust in a generalist producer (founder) in contexts where the two parties consider entering into a partnership (equity investment at IPO), and so that generalist producer is devalued. Finally, we show that an external expert endorsement—in our case, from intensive venture capital affiliations—offsets the generalist penalty, especially when category spanning occurs in multiple category dimensions.

Keywords: Entrepreneurship, Social Categories, Trust.

INTRODUCTION

The management literature reflects a particular interest in resource providers' evaluations of founders of early-stage ventures (e.g., the decision process of venture capitalists and business angels [Huang and Pearce 2015] as well as investors' evaluations of investment pitches [Clarke, Cornelissen, and Healey 2019] and crowdfunding campaigns [Younkin and Kuppuswamy 2018]). However, different streams of research have led to different conclusions about the effects of founders' breadth of experience on resource providers' evaluations of early-stage ventures. On the one hand, a stream of research drawing on the "jack of all trades" theory in economics (Lazear 2004) suggests that founders need to be generalists. The notion is that a broad set of experiences enhances opportunity recognition (Gruber et al. 2013), increases the generation of novel ideas (Burt 2004, Hargadon and Douglas 2001), and reduces the costs of accessing resources (Davidsson and Honig 2003, Vissa 2012). On the other hand, another stream of research on social categorization (Zuckerman 1999) suggests that breadth of experience hinders the resource-acquisition process (Aldrich and Ruef 2006, Leung and Sharkey 2014, Navis and Glynn 2010, 2011, Zuckerman et al. 2003). The notion is that resource providers see generalist founders as less capable (i.e., shallower in their knowledge [Aldrich and Ruef 2006]), less committed (Leung 2014, Leung and Sharkey 2014), and more difficult to make sense of (Zuckerman et al. 2003) than specialist founders. In a recent effort to reconcile these two streams of research on specialization in early-stage ventures, Kacperczyk and Younkin (2017) highlighted two dimensions of founders' breadth of experience (function and market) and how the benefits of greater breadth in one dimension (functional experience) are magnified by more specialization (less breadth) in the other dimension (market experience).

However, the founder-profile investors find attractive at the start-up stage might be different from the one they prefer at later stages of a venture, specifically at IPO (Boeker and Karichalil 2002, Wasserman 2008). The literature has suggested that multifaceted founders can be effective in the early stages of a business, but they often lack the specific skills to scale the business (Boeker and Karichalil 2002, Souder et al., 2012, Wasserman 2003 and 2008). Therefore, while varied resource holders might appreciate a "jack of all trades" founder, IPO investors could prefer a specialist to take the business "to the next level".[1] Despite recent scholarly interest in the influence of founders on their later-stage

ventures (e.g., Lee et al. 2017, Souitaris et al. 2020, Wasserman 2017), scholars have paid little attention to resource providers' evaluations of founders at IPO, so the mechanisms underlying these evaluations remain mostly hidden (Nelson 2003). This empirical void is surprising because IPOs are critical funding events signifying ventures' shift to organizational growth (Jain and Kini 1999) driven by founders' strategies (e.g., Barringer, Jones, and Neubaum 2005, Fesser and Willard 1990). Further, IPOs can also substantially impact ventures' future access to resources (Paik and Woo 2017, Pollock and Gulati 2007) and performance (Wuorinen, McNamara, and Pan 2020) and thus resource providers' return on investment. We therefore ask the following:

> *Research Question 1: How does a lead founder's breadth of experience affect investors' evaluations of his or her entrepreneurial venture and hence the funds raised at IPO?*

In addition, from a theoretical perspective, the IPO is an unexplored and interesting context for social categorization theory. The current theory primarily focuses on the contexts of audience evaluations of recreation products or their producers (e.g., wine [Negro and Leung 2013], beer [Carroll and Swaminathan 2000], restaurants [Rao et al. 2005], feature films [Hsu 2006], and art [Hahl and Zuckerman 2017]) and attributes the generalist penalty to ambiguity (Zuckerman et al. 2003) and concerns about competence and commitment (Hahl and Ha 2020). However, in the IPO context, the "audience" (investors) do not just evaluate "producers" (founders) for leisure consumption; they ultimately finance them. We suggest that this involvement could provide an opportunity to identify novel theoretical mechanisms to explain the generalist penalty (or advantage). Specifically, an IPO transaction involves the creation of a partnership and puts minority investors (the audience) in a vulnerable position (Bammens and Collewaert 2014, Fairchild 2011) because of agency risk, information asymmetry, and lack of strong contractual mechanisms to enforce what is promised to them (Campbell and Tabner 2014, Kanagaretnam et al. 2012, Schulze and Zellweger 2021). Founders (producers) could act inconsistently and steer their ventures in non-agreed-upon directions that involve greater risk than desired by investors (e.g., Chatterjee and Hambrick 2011, Latham and Braun 2010), reduce their efforts in their ventures (Jensen and Meckling 1976), or voluntarily exit their ventures (Gentry et al. 2021) to pursue other life projects. Since IPO transactions put investors in a vulnerable position, they need to trust founders before investing in entrepreneurial ventures (e.g., Bottazzi et al.

2016, Brown et al. 2012, Maxwell and Lévesque 2014, Shepherd and Zacharakis 2001). Following other studies (in entrepreneurial finance [e.g., Bammens and Collewaert 2014, Phillips, Tracey and Karra 2013], management [e.g., Davis et al. 2000, Fulmer and Gelfand 2012], and psychology [e.g., Dirks 2000]), we define trust as the willingness to "accept vulnerability based upon positive expectations of the intentions or behavior of another" (Rousseau et al. 1998: 395). We suggest that a lead founder's breadth of experience at IPO could act as a signal of (in)consistency and thus might affect investors' perceptions of the trustworthiness of that founder. We therefore ask the following:

> *Research Question 2: Does investors' trust in a lead founder provide a new mechanism linking the lead founder's breadth of experience to funds raised at IPO?*

To address our two related research questions, we build on the social categorization literature from a sociocognitive perspective to offer a founder's breadth-of-experience model of investment in entrepreneurial ventures at IPO. We focus our model (theoretically and empirically) on founder-centric entrepreneurial IPOs—namely, ventures that are young (less than 10 years), independent (i.e., do not have a parent corporation), and founder engaged (i.e., the lead founder still plays an active role in the business as a member of the top management team and/or board of directors). Under such conditions, investors likely consider the focal founder's profile when assessing a venture at IPO for possible investment. Indeed, a venture's IPO prospectus provides explicit information about the lead founder's breadth of experience.

To empirically test our model, we conducted three empirical studies followed by a set of interviews. In Study 1, we analyzed a novel hand-collected dataset of 175 firms listed for the first time on the Alternative Investment Market (AIM) of the London Stock Exchange (LSE) and find that IPO investors discount IPO firms with generalist lead founders in terms of their industry and functional experience. We theorize and find that being a specialist in one dimension of experience (e.g., function) reduces the penalty from being a generalist in another (e.g., industry). We also theorize and find that an external expert endorsement—from intensive venture capital (VC) affiliations—offsets this generalist penalty, especially for entrepreneurial ventures with founders who are generalists in both experience dimensions. To control for alternative explanations and unobserved heterogeneity and to test trust as a theoretical mechanism linking founders' breadth of experience to investors' evaluations of ventures at

IPO, we conducted two additional experiments: a lab experiment with finance students as investors (Study 2) and an online experiment with actual stock investors (Study 3). The experiments allowed us to manipulate lead founders' background and assign investors to conditions randomly. The results of Studies 2 and 3 confirm those of Study 1—investors devalue generalist lead founders, and lead founders who are specialists in one category can partly offset the penalty of being a generalist in the other category. The experiments also empirically demonstrate that investors' trust in lead founders is a mechanism for the above relationships. Finally, we conducted a set of 20 semi-structured interviews with IPO investors that confirm our findings' face validity and capture practitioners' thoughts about the possible mechanisms at play. With the results of these studies, we make contributions to both the organizational literature on entrepreneurship and the broader theory of social categorization.

First, we contribute to the vital debate in the organization literature about the implications of founders as generalists (Astebro and Thompson 2011, Kacperczyk and Younkin 2017, Lazear 2004, 2005) or specialists (Leung 2014, Leung and Sharkey 2014, Zuckerman et al. 2003) by theorizing and testing investors' assessments of entrepreneurial ventures at the IPO stage, while focusing on of two key dimensions of founders' experience. Specifically, we build on and extend Kacperczyk and Younkin's (2017) recent pioneering work on early-stage ventures by focusing on later-stage entrepreneurial ventures, specifically at the time of IPO. In general, investors believe that founders' role at IPO differs from their role in the early stage of their ventures (Boeker and Karichalil 2002, Wasserman 2008) and that the IPO is a critical stage for organizational development and future performance (Jain and Kini 1999, Paik and Woo 2017, Pollock and Gulati 2007, Wuorinen et al. 2020). We theorize and find that founders' breadth of functional experience negatively relates to resource providers' investment in ventures (i.e., funds raised at IPO), with greater industry specialization *attenuating* this negative relationship. This finding in the context of IPO-stage ventures contrasts findings in early-stage ventures. Specifically, Kacperczyk and Younkin (2017) found that founders' breadth of functional experience in early-stage ventures has a *positive* relationship with entrepreneurial entry, with greater industry specialization *magnifying* this positive relationship. Therefore, in combination with Kacperczyk and Younkin (2017), we reconcile the theoretical arguments and empirical findings detailed in the literature. Specifically, while generalist founders might be beneficial

for starting up a venture, it appears that public investors have less trust in such multifaceted founders at the later stage of IPO. Indeed, for these later-stage entrepreneurial ventures, investors trust "consistent" specialists to scale the business. Overall, by shifting the focus to the "public" investors who evaluate founders at the IPO (later) stage, we show that the generalist discount (or advantage) of actors depends on the timing of the evaluation, which is a new theoretical insight for the social categorization theory.

Second, we contribute to the broader literature on social categories (Glynn and Navis 2013, Hahl and Ha 2020, Vergne and Wry 2014, Younkin and Kashkooli 2020, Zuckerman 1999) by introducing (lack of) trust as a mechanism of the generalist penalty. Indeed, inspired by recent studies on social categorization hinting at the importance of trust (Hahl and Zuckerman 2014, Hahl, Zuckerman, and Kim 2017, Phillips, Turco, and Zuckerman 2013), we theorize and test a trust-based mechanism to explain the generalist penalty. Specifically, we suggest that evidence of a founder's past category spanning might signal potential future inconsistency, dampening investors' trust in the founder at IPO and reducing funds raised by the venture. Our experiments played a key role in revealing a trust mechanism of the generalist penalty because they isolated the effect of founders' specialization on IPO investors' evaluations and provided access to investors' decision-making process. We argue that (lack of) trust is theoretically distinct from other established mechanisms of the generalist penalty, such as ambiguity, inauthenticity, and concerns about capabilities and commitment, and applies to contexts in which the audience goes beyond an evaluation of the producer to accept a vulnerable position in a partnership (e.g., investing in an IPO, putting scarce capital at risk).

Finally, we contribute to the literature on social categories by extending the recent theoretical discussion about the boundary conditions of the generalist penalty (Alexy and George 2013, Paolella and Durand 2016, Pontikes 2012). In our context of founders of entrepreneurial ventures at IPO, we theorize and find that while there is a penalty for category spanning for each experience dimension separately, being a specialist in one dimension offsets (partially or fully) the negative effect of being a generalist in the other dimension. We also demonstrate that an expert endorsement (VC-retained equity) offsets the penalty of category spanning, especially when that category spanning occurs in multiple dimensions. It appears that generalists can reduce their category-spanning penalty by either specializing in another categorical dimension or securing the endorsement of a reputable external party or both.

THEORY AND HYPOTHESIS DEVELOPMENT

Social Categorization and the Generalist versus Specialist Debate

Social categorization theory argues that people put entities (objects, other people, and organizations) into categories, which serve as lenses to interpret the world around them (Clark and Montgomery 1998, Hsu 2006, Negro et al. 2010, Porac et al. 1995). Entities that span multiple categories—generalists—create ambiguity, and audience members tend to evaluate these category spanners less favorably (Hsu 2006, Hsu et al. 2009, Kovács and Hannan 2010, Zuckerman 1999). Specifically, evaluators are unsure of how to make sense of such offerings (Hsu 2006, Zuckerman 1999) as they either do not appear to fit into any category (confusing) or appear to fit into too many categories (inauthentic). Furthermore, evaluators might view the lack of focus on a single category as signaling something negative (Leung and Sharkey 2014), such as a lack of commitment (Hahl and Ha 2020, Phillips et al. 2013) or capability (Hahl and Ha 2020, Hsu et al. 2009, Sakhartov 2018, Sgourev and Althuizen 2014, Zuckerman et al. 2003). This generalist penalty (or "categorical imperative" effect) has been observed empirically in multiple contexts (Leung and Sharkey 2014), such as public corporations (Zuckerman 1999), mutual funds (Lounsbury and Rao 2004), French cuisine (Rao et al. 2005), films (Hsu 2006), auctions (Hsu et al. 2009), wine (Negro and Leung 2013), and nanotechnology (Wry and Lounsbury 2013).

Interestingly, some empirical evidence (e.g., Custódio et al. 2013, Merluzzi and Philips 2016, Nagle and Teodoridis 2020, Natividad and Rawley 2016, Kacperczyk and Younkin 2017, Villalonga 2004) points toward benefits of a generalist approach in apparent contradiction to the notion of the generalist penalty.[2] For example, whether the generalist penalty or the diversification premium applies depends on conditions and factors that reduce capability concerns (Hahl and Ha 2020), such as the type of audience (different audiences value different issues [Paolella and Durand 2016, Pontikes 2012]), the proximity of the spanned categories (Kovács and Hannan 2010),[3] and the producer's status (Phillips et al. 2013, Sgourev and Althuizen 2014) and authenticity (Hahl and Ha 2020).[4] Overall, a general observation from this debate is that

> The seeming inconsistency between these two streams of work [specialists versus generalists] stems, in part, from efforts to generalize from different settings with different underlying characteristics. The amount of evidence highlighting the superior performance of both

specialists and generalists suggests that they have strengths and weaknesses that make them better suited to different circumstances. (Teodoridis, Bikard, and Vakili 2019, p. 895)

Lead Founders' Breadth of Experience and Entrepreneurial Ventures at IPO

Since context appears to matter to the generalist penalty, in this study, we investigate the context of investors' evaluations of lead founders of entrepreneurial ventures at IPO. Given investors' uncertainty over the founders' capabilities to scale and improve the efficiency of the business, they are likely to rely on the heuristic of the breadth of founder's experience. Indeed, a core assumption of the categorization literature is that audiences rely more on categorical schemas in the presence of uncertainty (Glynn and Navis, 2013). For example, Negro and Leung (2013) found that the negative effects of category spanning were greater for wines in the middle range because of the higher uncertainty surrounding them. In an employment context, Leung (2014) found that employers are more likely to use categorization as heuristics when uncertainty about freelance workers increases. Similarly, Merluzzi and Phillips (2016) suggested that when employers lack sufficient information on the quality and reliability of candidates, having a focused or specialized identity provides a helpful signal to minimize uncertainty.

In our context, investing in entrepreneurial IPOs is generally shrouded in uncertainty. The finance literature showed that there is considerable outcome volatility despite all the published information about the IPO issue (Lowry, Officer, and Schwert, 2010). More specifically, while there is evidence of founder quality until the IPO, investors lack sufficient information about the founder's ability to manage the growing business in the post-IPO stage. The management literature has suggested that while founders can be effective in the early stages, they may lack the right skills to grow rapidly and efficiently manage the business (Souder et al. 2012, Wasserman 2003). Therefore, facing high uncertainty, investors at IPO are likely to rely on founder categories as a heuristic to infer skills and commitment post-IPO.

In addition, while early-stage financing involves stringent due diligence from industry and start-up experts (angel investors and venture capitalists), the IPO is open to broader evaluators who are not all experts and are more likely to use signals and heuristics. Finally, early-stage financing usually involves multiple face-to-face interactions with the founder, which engenders trust by design. In

contrast, in an IPO, the investors are more distant from the founder and can not rely on personal interactions. Thus, IPO investors may use a founder's specialization as a signal to infer trust in the investment relationship.

We focus on lead founders because they represent their organizations in the eyes of investment audiences (Bammens and Collewaert 2014, Wasserman 2017). Investors have limited attention and often look for and are influenced by a single founder who personifies a venture's values and business proposition. This lead founder is salient in obtaining financing, attracting investors, and legitimizing the firm (Wasserman 2017) and is portrayed in the firm's prospectus and the media as the "face of" the venture, the core of the founding team, and the mastermind of the firm (Ensley, Carland, and Carland 2000, Wasserman 2003). Lead founders represent the ethos, purpose, and character of their organizations (e.g., Steve Jobs, Bill Gates, Mark Zuckerberg), and audiences relate with these entrepreneurs—the ultimate decision makers—perhaps exaggerating their importance in setting their firms' strategic direction (Nelson 2003). Specifically, investors pay particular attention to lead founders of ventures at IPO and are influenced by their profiles when making investment decisions (Certo et al. 2001a). Our interviews with IPO investors provided clear evidence of the importance of lead founders' background for investment evaluations of founder-centric entrepreneurial ventures at IPO (see the design and results of our interviews in the online appendix). For example, one interviewee mentioned, "I always take a good look at the founder's background. It is very important to know which companies the lead founder worked for previously and if he [or she] is a 'professional' in this industry."

In line with a pioneering study on the social categorization of founders (Kacperczyk and Younkin 2017), we focus on industry and functional background as two salient category dimensions of lead founders' experience that investors devote attention to when evaluating ventures.[5] Audiences categorize lead founders' industry and functional experience into standardized categories—standard industrial classification systems, such as the North American Industry Classification System or the Industry Classification Benchmark (e.g., oil and gas, consumer goods, health care, telecommunications) and systems like the International Standard Classification of Occupations (e.g., R&D, finance, sales, and marketing).

Founders' Breadth of Experience, Resource Providers' Trust, and Investment

While generalist founders might have a performance advantage in starting up their organizations because they can perform a wide variety of tasks (Lechmann and Schnabel 2014) and can thus convince early resource providers of their competence to run their ventures (Davidsson and Honig 2003, Vissa 2012), we theorize that during the IPO stage, resource providers are more likely to trust consistent and predictable specialist founders to take ventures to the next performance level. Trust comprises two interrelated cognitive processes: (1) a willingness to accept vulnerability to the actions of another party and (2) positive expectations regarding the other party's intentions, motivations, and behavior despite uncertainty (Lewicki et al. 2006, Rousseau et al. 1998)[6].

Despite its intuitive relevance, the concept of trust is absent from the literature on social categories. We were inspired by recent sociological studies hinting at the importance of trust in how socially categorized actors are perceived (Hahl and Zuckerman 2014, Hahl, Zuckerman, and Kim 2017, Phillips, Turco, and Zuckerman 2013). Specifically, based on the context of art consumption, Hahl and Zuckerman (2014) argued that high-status actors are often seen by their audiences as incentivized to "feign their capabilities and commitments" and are therefore "*suspected* of being insincere or inauthentic" (p. 507), which can result in negative evaluations ("denigration of heroes"). Further, Phillips and colleagues (2013) showed that corporate law firms' diversification into personal injury law violates loyalty norms and that their corporate clients see this diversification as a "betrayal."[7] In general, "the audience likely *trusts* conformity to a category" (Negro et al. 2015, p. 585).

The current literature documents *consistency* as one of the key bases of trust (Adler 2001, Maxwell and Lévesque 2014, Sako 1992) (e.g., Can I trust that my partner will not "shift away" from his or her promises?). Specific to the investment context of entrepreneurial ventures at IPO, trust derives from the perception that a founder is behaving consistently and predictably to deliver the business plan pitched at IPO instead of pivoting the focal firm in new directions not anticipated or desired by investors. Indeed, minority investors may suspect opportunistic misappropriation of their money for unanticipated purposes (i.e., mistrust), but they lack contractual power to enforce the promised business direction (Kanagaretnam et al. 2012, Schulze and Zellweger 2021).

While specialist founders signal consistency and predictability, generalist founders likely signal career inconsistency, creating suspicions of entrepreneurial "behavioral disinhibition" (Lerner 2016)

and "erraticism" (Leung 2014). A disinhibited or erratic entrepreneur is not trusted because investors likely suspect future changes in the venture's direction inconsistent with the founder's promises. In simple terms, investors tend to suspect that a generalist founder might yet again become excited with something new and opportunistically use investors' money ("betray" them) and/or "abandon ship" to pursue his or her latest business or life project. As one interview expressed it,

> There is a risk that if the founder has jumped from one industry to another or moved to different roles or experiences, then there is a chance he [or she] will do that again and move out. Makes it hard to trust him [or her], doesn't it?

Also, investors could be concerned that the penalty for violating their trust is lower for a generalist founder than for a specialist founder; generalists are used to moving to new fields of activity and often avoid the consequences of their opportunistic behavior in the previous field. In contrast, investors expect specialist founders to stick with their fields (e.g., their industries) and thus have an additional incentive to keep their reputation (for trustworthiness) intact.

In turn, we argue that when founders earn investors' trust, these investors pay attention to and value the founders' entrepreneurial ventures more. For example, a recent study showed a positive relationship between investors' trust in a founder and their assessments of the performance of that founder's venture (Bammens and Collewaert 2014). This finding is important because it indicates that trust engenders more optimistic attitudes toward founders when investors engage in the subjective evaluation process of seeking out, interpreting, and recalling performance-relevant factors (Bammens and Collewaert 2014, Dirks and Ferrin 2001, Simons and Peterson 2000). In simple terms, trust involves delivering on promises and acting consistently, rationally, and honestly. This trust is important to those who invest in entrepreneurial ventures because such investors face agency risk, information asymmetry, and a lack of protection from fully specified contracts (Campbell and Tabner 2014, Kanagaretnam et al. 2012, Schulze and Zellweger 2021).

Empirically, Leung and Sharkey (2014) showed that in a financing context (an online lending platform), audiences penalize generalist vis-à-vis specialist borrowers. In a complementary finance paper, using data from the same online lending platform, Duarte, Siegel, and Young (2012) found that borrowers who lenders trust more have a greater likelihood of achieving their funding goals and

obtaining better loan terms. These findings provide evidence that trust could be a mechanism of the relationship between borrower specialization and funding.

Based on the above arguments, we propose that resource providers trust generalist founders less than specialist founders. In turn, this reduced trust likely leads resource providers to discount generalist founders' entrepreneurial ventures at IPO. Thus, we offer the following hypotheses:

> **Hypothesis 1**. Entrepreneurial ventures with lead founders who are **(a)** industry generalists raise less funds at IPO than those with lead founders who are industry specialists; **(b)** functional generalists raise less funds at IPO than those with lead founders who are functional specialists.

> **Hypothesis 2**. Investors' trust in a lead founder mediates the relationship between the founder's experience breadth and the funds raised for his or her entrepreneurial venture at IPO. Specifically, there is a positive relationship between founder specialization (**[a]** industry, **[b]** functional) and resource providers' trust, and there is a positive relationship between resource providers' trust and funds raised for the entrepreneurial venture at IPO.

Theoretical Scope

From a theory perspective, our hypothesized "trust mechanism" for the generalist penalty is bound by contexts involving an economic relationship or a partnership between a producer and an audience member, which are characterized by vulnerability (Bammens and Collewaert 2012, Fairchild 2011) because of agency risk, information asymmetry, and incomplete contracting (Campbell and Tabner 2014, Kanagaretnam et al. 2012, Schulze and Zellweger 2021). Such relational contexts (e.g., the relationship between an IPO investor and a founder) differ from previously observed settings in the literature based on evaluations of recreation and leisure products (Carroll and Swaminathan 2000, Hahl and Zuckerman 2017, Hsu 2006, Negro and Leung 2013, Rao et al. 2005). In these more transactional market contexts, the trust mechanism of the generalist penalty might be less pronounced or relevant.[8]

Furthermore, the trust mechanism is likely stronger when a) an entity's value to a given audience member depends heavily on its worth to other members (Zuckerman 1999), b) it is difficult to observe the entity's quality before selection, and c) the entity's category-spanning signals are visible (Hahl and Ha 2020). For example, in our context of investors considering entrepreneurial ventures at IPO, the value of a venture to a focal investor depends on demand from other investors, quality is difficult to accurately estimate ex ante (e.g., our interviewees [even professional investors] told us that buying stock in entrepreneurial ventures at IPO is a highly uncertain decision), and IPO prospectuses offer visible details about founders' experience breadth.

Finally, we suggest that the hypothesized trust mechanism is theoretically distinct from other known mechanisms of the generalist penalty, such as ambiguity (Zuckerman 1999), authenticity (Hahl, Zuckerman, and Kim 2017), perceived competence (Negro and Leung 2013), and commitment (Hahl and Ha 2020).[9] Trust is about believing that a (specialist) partner is consistent and predictable and will not shift direction. Empirically, in relational (as opposed to transactional) contexts, trust could act in parallel with (i.e., as a separate mediator), in tandem with, or as an outcome of these other known mechanisms. For example, ambiguity (e.g., the audience is uncertain whether the founder is A or B) and inauthenticity (i.e., the audience believes that the founder is neither A nor B) could reduce trust in a potential partner (Frisch and Baron 1988, Keren and Gerritsen 1999, Kühberger and Perner 2003, Pulford 2009) as the focal decision maker does not fully understand the potential partner's identity (Connelly et al. 2018, Fukuyama 1995, Lewicki, McAllister, and Bies 1998).

Combined Breadth of Industry and Functional Experience

In practice, founders present their industry and functional experience together in their resumes, which are required in IPO prospectuses. Therefore, we expect founders' breadth of industry and functional experience to have a combined effect on investors' evaluations (Kacperczyk and Younkin 2017, Paolella and Durand 2016). Considering audiences' evaluations from a configuration perspective, we theorize that a broad range of experience in one dimension could be somewhat balanced by a narrow range of experience in the other dimension. Specifically, we theorize that a founder's specialization in one experience domain generates trust that compensates for trust concerns from being a generalist in the other domain, ultimately increasing the likelihood that resource providers will invest in the entrepreneurial venture at IPO. For example, a lead founder who is an industry generalist might create consistency concerns and suspicions (mistrust) among IPO investors. Still, if the same founder is an expert in financial management, he or she appears to fit in at least one important category. This founder is likely to be perceived as a trusted "money person" with a consistent and recognized career path. This specialization in function may facilitate investors' trust and reduce the concerns and, ultimately, the penalty from industry spanning. Conversely, whereas investors may downgrade a functional generalist founder, they likely perceive greater trust if the founder is also an industry specialist (i.e., a reduction in the penalty for a functional generalist).

In more general terms, cross-categorization provides the opportunity for founders to compensate for breadth in one category dimension with depth in another dimension (Kacperczyk and Younkin 2017, Vescio et al. 2004). The specialization in a second category dimension may reduce the audience's trust concerns generated from the focal actor's category spanning in the first dimension. This increased trust ultimately raises the audience's evaluations of the founder's entrepreneurial venture. Based on the above reasoning, we offer the following hypothesis:

> **Hypothesis 3:** The negative relationship between lead founders who are generalists in **(a)** industry and **(b)** function and the funds raised by their entrepreneurial ventures at IPO is less negative when the lead founders are partial specialists (in either industry or function) than when they are full generalists.

Founders' Breadth of Experience and Outsider Endorsement

While founders provide potential investors information about their industry and functional experience in IPO prospectuses, there are likely external sources of information that generate or diminish investors' trust in founders. Extant research has suggested that third-party endorsements can develop audiences' trust in the endorsed entities (Courtney, Dutta, and Li 2017, Kim 2019). Indeed, when an entity is difficult to assess—such as a generalist (Durand and Paolella 2013, Paolella and Durand 2016, Wry and Lounsbury 2013, Zuckerman 1999)—audiences look to "observable attributes that are thought to co-vary with its underlying but unknown quality" (Stuart, Hoang, and Hybels 1999: 317). One such observable signal is a strong endorsement from "experts" (Kovács and Hannan 2010), in our context, VC firms (Colombo, Meoli, and Vismara 2019, Plummer, Allison, and Connelly 2016). Venture capitalists are knowledgeable in selecting and investing in high-quality ventures (Barry et al. 1990, Dimov and Shepherd 2005) and effectively monitoring and directing ventures' growth strategies (Cyr et al. 2000, Kaplan and Strömberg 2004, Lerner 1995, Sapienza et al. 1996). In other words, venture capitalists are both insiders (e.g., involved in organizations' decision-making process [Lerner 1995, Sapienza et al. 1996]) and controllers (e.g., occupy seats on boards to monitor organizations' management teams [Kaplan and Strömberg 2004, Lerner 1995]) of ventures. Therefore, venture capitalists' involvement at IPO represents a signal to public investors that the focal lead founder has "passed the trustworthiness" due diligence of the VC firm (Milanov and Shepherd 2013: 733, Pollock

and Gulati 2007). This endorsement and the resulting signal of trustworthiness may compensate for concerns arising from the focal founder's category spanning.

To the extent that venture capitalists' engagement is represented by the proportion of equity they retain at IPO (see Barry et al. 1990), we theorize that VC-retained equity moderates the negative relationship between founders' category spanning and firms' resource acquisition at IPO. That is, when venture capitalists retain a higher proportion of equity in a venture whose founder spans both industry and functional categories, public investors are less likely to concentrate on (and discount the value of) the entrepreneurial venture because of its founder's category spanning. Based on the above reasoning, we offer the following hypothesis:

> **Hypothesis 4**. The proportion of a venture's equity retained by venture capitalists increases the funds raised at IPO more for entrepreneurial ventures with a lead founder who is a generalist in both industry and function than **(a)** those with a lead founder who is a specialist in either industry *or* function and **(b)** those with a lead founder who is a specialist in industry *and* function.

To test the relationship between founders' category spanning and the funds raised by entrepreneurial ventures at IPO, we used a mixed-methods approach (Edmondson and McManus 2007, Molina-Azorin 2012). Specifically, we conducted three studies followed by a set of semi-structured interviews: (1) an observational study with archival data from the AIM of the LSE to test the main effects in a population of entrepreneurial ventures' IPOs during a 12-year period (2002–2013); (2) a lab study consisting of a randomized experiment with finance students as proxies for investors to establish causality, control for alternative explanations, and investigate trust as a mechanism underlying the relationship; and (3) an online experiment with a larger sample of experienced investors to replicate Study 2 and test the mediating role of trust in conjunction with audience concerns about competence (a known mediator). We also conducted 20 semi-structured interviews with IPO investors to test the face validity of our arguments and results and qualitatively capture practitioners' thoughts about the possible mechanisms at play (we present the design and results of these interviews in our online appendix). We begin with Study 1.

STUDY 1: OBSERVATIONAL STUDY

Sample and Data Source

We tested our hypotheses on IPOs in the AIM in the United Kingdom between 2002 and 2013. We started in 2002 to avoid the crash after the dot.com period. The AIM is a submarket of the LSE that allows smaller and less mature companies to float shares in a more flexible regulatory system than the LSE main market. We focused on the total population of IPOs for the specific period instead of a single industry or a few selected industries, consistent with work by Martens, Jennings, and Jennings (2007) and Wu and Dokko (2007). We filtered the population of 1,908 IPOs in the AIM during the specified period to find firms that fulfilled the conditions at IPO of being an entrepreneurial venture—that is, a young (less than 10 years [e.g., Carpenter, Pollock, and Leary 2003, Shepherd, Ettenson, and Crouch 2000]) and independent venture (de novo [Khessina and Carroll 2008]) whose lead founder is still active in the venture at IPO (Certo et al. 2001a). To identify entrepreneurial IPOs, we followed a multistage process suggested by seminal papers in the resource-acquisition literature (e.g., Bruton et al. 2010, Filatotchev and Bishop 2002, Nelson 2003).[10] After the selection steps, we found 231 entrepreneurial ventures, of which 175 (76%) were also founder centric. These 175 ventures comprise our final sample.

We used a conservative conceptualization of founders: individuals who set up or establish firms (Nelson 2003), excluding hired executives and investors. We investigated each venture's early origins (online and in the press) to identify its founder(s), and we corroborated our findings with information in the firms' IPO prospectuses. In most cases, the makeup of the founding team was obvious, and we resolved a few ambiguous cases after a discussion within the coding team. For firms with a single founder (89 of 175 cases), we coded the independent variables (founder's industry and functional background) based on information about this person. For firms with multiple founders (86 cases), we focused on the background of the lead founder instead of analyzing the founding team (consistent with recent work by Wasserman [2017]). We chose to study the categorization of the lead founder rather than average the qualities of the founding team members because a unique leader generally assumes the figurehead role for a company and is more salient to audiences than a collective (i.e., a team) (Wasserman 2017).

We followed a sequential process based on four criteria (adapted from Wasserman [2017]) to select the lead founder of each firm. The first criterion included founders who had the title of CEO or managing director (MD) at IPO.[11] The founder CEO is the most visible person in a founding team, is

critical in business operations, and plays a central role in the funding process (Certo et al. 2001b, Nelson 2003). We used a second criterion for firms with a non-founder CEO at IPO: we coded the founder chairperson of the board as the lead founder. After a firm appoints a professional CEO, the original lead founder often serves as the board's chairperson. This highly visible position can influence major decisions about the organization's strategic direction (Wasserman 2003). Third, if neither the CEO nor the chairperson was a founder, we coded the founder with the largest equity stake vis-à-vis other shareholders at IPO as the lead founder. Even when a founder who is a major shareholder shies away from an executive role, he or she can influence the firm's direction via a board position (Miller et al. 2011). Finally, if neither the CEO, the chairperson of the board, nor a relatively large equity stakeholder was the founder, we coded the founder who developed the initial idea for the business as the lead founder. The founder with the initial idea often exemplifies the company in audience members' eyes and assumes the figurehead role (Wasserman 2017).

We note that while we cannot claim that the venture population in the AIM is representative of IPO issues in all other world exchanges, our sample captures a population of founder-centric entrepreneurial ventures at IPO in a major exchange. Overall, 123 of the 175 lead founders in our sample (70.29%) were CEOs at IPO, 25 (14.29%) were chairpersons of boards, 94 (53.71%) were major shareholders, and 46 (26.29%) were executives identified as "key personnel" in the prospectuses. Further, 101 of the lead founders were identifiable by multiple criteria (e.g., CEO and chairperson or chairperson and major shareholder). This overlap increased our confidence in the above approach for identifying lead founders. At IPO, 27.6% of the equity was held by the founders on average. The above descriptive statistics demonstrate that the lead founders typically played a vital role in their ventures upon entering IPO. We ran two robustness checks with more restrictive subsamples: First, we excluded the "less central" cases of lead founders (18) who were not a CEO, chairperson, or major shareholder (n = 157). Second, we included only lead founders who were either a CEO or a chairperson (n = 141). For both these tests of more restrictive subsamples, the results remain consistent with the full-sample analysis.

We used each firm's IPO prospectus as the primary source of information for coding our independent variables. The prospectus is a reliable source of information (Certo et al. 2001b, Daily et

al. 2003, Martens et al. 2007) because a venture's owners and managers can be held legally accountable for its accuracy (Welbourne and Cyr 1999). Three researchers coded the information to increase reliability. One author and a research assistant coded the data independently and then compared their coding. Another author double-checked all the codes and acted as a mediator in cases of coding differences. The coding team discussed 13 instances of coding differences before agreeing.

Dependent and Independent Variables

Since our study focuses on entrepreneurial ventures' resource acquisition at IPO, we measured our main outcome variable (i.e., *funds raised at IPO*) as *IPO proceeds*, calculated as offer price multiplied by the number of shares sold in the offering, log-transformed (Certo et al. 2009). Many studies of entrepreneurial IPOs have used IPO proceeds as the dependent variable (e.g., see Benson et al. 2015, Deeds et al. 1997, Higgins et al. 2011, Useche 2014). As Deeds and colleagues (1997) explained, "clearly, if access to capital is the major goal of going public, then the success of an offering is measured by the amount of capital raised by the firm" (p. 31). IPO proceeds also indicate the value of the focal firm (Higgins et al. 2011) and the inverse of ex ante unobservable uncertainty about the issue (Habib and Ljungqvist 1998). [12] We assumed (with additional evidence from exploratory interviews with IPO investors) that proceeds reflect public investors' interest in a venture. Underwriters and venture shareholders monitor the market's pulse before negotiating the price and number of shares to be sold.[13] In a sensitivity analysis, we also explored alternate dependent variables, as we elaborate below.

The primary independent variables were lead founders' (1) industry and (2) functional category spanning. We used lead founders' resumes in their entrepreneurial ventures' prospectuses as the primary source for the coding process. Prospectuses convey comprehensive and memorable images of founders and serve as initial tools for investors to assess founders' ability and credibility. Besides, we observed that versions of founders' resumes presented in prospectuses also appeared widely in other forums, such as on their personal homepages (LinkedIn, Facebook, etc.), company websites, investment websites, and media reports.

We selected the Industry Classification Benchmark (ICB) to categorize founders' industry experience since the LSE adopted this framework, and most founders follow this structure in their

resumes; therefore, the ICB is clear and salient to investment audiences. The ICB includes 10 broad industry classes: oil and gas, basic materials, industrials, consumer goods, health care, consumer services, telecommunications, utilities, financials, and technology. We based our coding of functional categories on the Standard Occupational Classification Hierarchy by the Office of National Statistics in the United Kingdom, which includes the following broad functional areas: administration; R&D, technique, and engineering; finance; sales and marketing; human resource management; manufacturing and production; legal; and other.

We coded lead founders using both simple dichotomous variables (i.e., specialist versus generalist) as well as more complex measures of dispersion—namely, the Herfindahl index (Kacperczyk and Yunkin 2017) and the number of industries or functions (Jose et al. 1986). Our primary category-spanning measures were the dichotomous variables (specialist versus generalist), which we later transformed into categorical variables (full specialist, partial specialist, full generalist). In exploratory interviews, investors told us that they use a simplistic dichotomous categorization of founder experience in one dimension based on the focal founder's bio in the prospectus, which typically does not include details about the founder's length of tenure in each industry or functional role. In simple terms, investors perceive founders as either specialists or generalists; it appears that investors are cognitive misers (Fiske and Taylor 1984), so considering founders' exact position on a specialist-generalist continuum is too costly to mentally calculate, interpret, and use. Other studies of social categorization have also used discrete dichotomous variables (e.g., specialist versus generalist), calculating such variables as being either above or below an index threshold (e.g., Custódio, Ferreira, and Mattos 2013, Teodoridis 2018) or distinguishing one subset of subjects (e.g., MBAs specialized in investment banking) from the rest (e.g., Merluzzi and Phillips 2016).[14]

We coded a lead founder as an industry specialist if he or she always worked in the same industry as the IPO firm. Similarly, we coded a lead founder as a functional specialist if he or she always worked in the same function as his or her current role in the entrepreneurial venture (e.g., finance, marketing).[15] To test Hypothesis 2, we classified all founders into one of three groups: (1) *full specialists* are founders who had worked in the same industry and the same function, (2) *partial specialists* are

founders who had worked in the same function across industries or different functions in the same industry, and 3) *full generalists* are founders who had worked across functions in various industries. We treated full specialists as the baseline and dummy coded the other two groups.[16] To test the moderating role of venture capitalists' involvement, we measured the proportion of *VC–retained equity* at IPO. This measure captures the proportion of a venture's equity held by venture capitalists at IPO. A variety of studies in finance and entrepreneurship have used this measure (Bruton et al. 2009, 2010, Florin 2005).

To be consistent with prior literature (e.g., Kacperczyk and Yunkin 2017), we also created a Herfindahl index of specialization for industry and function ranging between 0 (full specialist) and 1 (full generalist). Specifically, we investigated the background of each lead founder on websites, in the press, and on social media to establish his or her length of tenure in different industries and functions. Unfortunately, we could not find reliable information for all cases, and the missing values reduced the sample size to 135. For this subsample, we found very high correlations between the Herfindahl index and independently coded dichotomous measures of specialization for industry (correlation = 0.9) and function (correlation = 0.9), which increased our confidence in our measures. While the Herfindahl index is statistically superior to the dichotomous variables (it is continuous), its coding suffered from missing values. Also, the notion of experience as a continuum does not reflect the way investors told us they mentally categorize founders' experience. In any case, the Herfindahl index regressions (with the reduced sample) broadly confirm our main results with the dichotomous variables and are also presented in our tables.[17]

Control Variables

Consistent with the extant literature on IPOs, we included four levels of control variables: market, venture, founder (individual), and founding team. At the market level, we used the Morgan Stanley Capital International (MSCI) UK index to control for the total stock and equity *performance of the market* during the IPO year. We also controlled for *the total number of IPOs* in the focal year, log-transformed. At the venture level, we controlled for *firm age* (in months), log-transformed, since firms with longer track records have a higher chance of IPO success (Chang 2004). We also controlled for

the *number of risk factors* for the focal IPO presented in the prospectus, which is a predictor of the price premium at IPO (Daily et al. 2003, Welbourne and Andrews 1996).

Also, we used a dummy variable to control for *high-technology industries* based on the taxonomy presented by the OECD in 2016. High-technology industries include air and spacecraft and related machinery; scientific R&D; software publishing; pharmaceuticals; and computer, electronic, and optical products. We also controlled for the nature of the business with a dummy variable taking the value 1 for *business-to-business (B2B) ventures* and 0 for business-to-consumer (B2C) ventures. We controlled for *the size of the venture* using the logarithm of total assets because larger firms present less uncertainty to potential investors than smaller firms (Chahine and Goergen 2011). We controlled for *prior venture performance* and the average year-on-year *revenue growth* for the past three years (e.g., Kroll et al. 2007, Walters et al. 2010). The pattern of revenue growth "is often considered the most telling measure of performance in the early years of a firm's existence" (Walters et al. 2010, p. 579) and is preferred to a measure of revenues in the most recent year, which could be volatile. Governance parameters also serve as useful screening criteria that affect investors' evaluations of ventures at IPO (Filatotchev and Bishop 2002, Sanders and Boivie 2004). Therefore, we controlled for *top management team size, board independence* (percentage of non-executive directors on the board)*, and *VC board membership* (a dummy variable taking the value 1 if the VC firm had a director on the board and 0 otherwise) (Chahine and Goergen 2011).

Furthermore, we controlled for *the length of the lockup period* (in months) because this period signals firm quality and minimizes the moral hazard problem (Brav and Gompers 2003). We controlled for *underwriter's prestige* (coded as a top 10 underwriter ranked by the AIM each year) and *venture capitalist's prestige* (coded as a top 20 fund based on year-by-year IPO market share between 1996 and 2002) because a prestigious underwriter or venture capitalist may reduce investors' uncertainty about a venture at IPO (Carter and Manaster 1990, Nahata 2008).[18] Moreover, we controlled for the *length of venture capitalist investment* (years since the first venture capitalist investment) to account for the stage of the firm's development. We also controlled for the *equity retained by other institutional investors* (not venture capitalists) to consider the possible governance effects of other large investors (Filatotchev 2006).

At the individual level, we controlled for *founder's retained equity*, which signals to investors that the founder has confidence in the prospects of the venture and that his or her goals align with those of potential investors, which may help the company raise funds at IPO (Daily et al. 2003). Also, we controlled for *founder CEO* because founder-led firms present valuable stability to investors, thereby collecting a higher premium for the stock price over book value at IPO (Nelson 2003). We controlled for the lead *founder's age* and *external board positions* within five years before IPO, which signal human and social capital and could influence investors' evaluations of the venture. We collected information on external board positions from the "Other Directorships" section of each prospectus (Certo 2003, Finkle 1998). Furthermore, we controlled for *founder's media status*, measured as the number of news items mentioning a lead founder together with his or her venture from start-up until IPO, log-transformed (Nguyen 2015). We obtained news data from the Nexis UK database, which includes coverage in national and regional newspapers. In line with prior literature (Kotha, Rajgogal, and Rindova 2001, Milbourn 2003), we randomly inspected approximately 10% of the total media articles and found that the coverage was overwhelmingly positive. We concluded that the extent of potential negative coverage was negligible. In any case, total media coverage (both positive and negative) increases attention and is positively related to personal reputation (Castellucci and Ertug 2010, Kotha, Rajgogal, and Rindova 2001, Milbourn 2003). Therefore, we considered total media coverage a good proxy for a founder's media status. We also controlled for the lead founder's educational qualifications with a dummy variable for having a *master of business administration* (*MBA*) *degree* as MBA graduates gain extra management skills and resources (Switzer and Bourdon 2011). In addition, since a career in finance makes lead founders more attractive to investors (who are typically also financiers), we controlled for *financial experience* by measuring the years that the lead founder had worked in a financial role.

Finally, we controlled for *founding team size* and co-*founder specialization* (by dummy coding firms with a specialist co-founder). A founding team with diverse functional backgrounds might increase a venture's attractiveness to investors at IPO and raise capital more successfully (Beckman et al. 2007, Beckman and Burton 2008).

Results of Study 1: Descriptive Analysis

From 2002 to 2013, the entrepreneurs in our sample raised £8.37 million ($10.88 million) on average in the AIM, and the mean market value of the businesses was £23.49 million (at offer price). The average age of the entrepreneurial ventures was 59 months (4.8 years), with 19.43% operating in high-technology industries. The average age of the lead founders was 46.

Insert Table 1 and then Table 2 about here

In Table 2, we show an initial descriptive assessment of our hypotheses. Consistent with Hypotheses 1a and 1b, the mean funds raised at IPO are higher in the subsamples of entrepreneurial ventures with founders who are industry or functional specialists compared to those with founders who are industry or functional generalists (i.e., £10.38 million versus £6.18 million and £10.29 million versus £7.49 million, respectively). Consistent with Hypothesis 3, the mean funds raised at IPO are higher in the subsample of entrepreneurial ventures with founders who are full specialists than those with founders who are only partial specialists (i.e., £11.67 million versus £8.55 million), which is in turn higher than those with founders who are full generalists (i.e., £8.55 million versus £6.25 million). The second part of Table 2 concerns the moderating effect of the share of the retained equity by venture capitalists. The correlation between VC-retained equity and funds raised is lowest in the subsample of entrepreneurial ventures with founders are who are full specialists (0.01) and becomes progressively more positive for those with founders are who are partial specialists (0.23) and full generalists (0.41). Therefore, descriptively, VC-retained equity appears to offset the penalty associated with founders' category spanning, consistent with Hypothesis 4.

The descriptive statistics in Table 2 also provide an indirect indication that venture capitalist ownership may constitute a particularly valuable signal for entrepreneurial ventures with founders who are full generalists. Suppose founders' category spanning in industries and functions reduces trust. In that case, venture capitalists are likely to be more careful in taking large ownership positions in entrepreneurial ventures with founders who are partial or full generalists—our data on mean VC-retained equity show precisely this relationship. The mean share of VC-retained equity is 16.45% for entrepreneurial ventures with full specialist founders, 8.77% for entrepreneurial ventures with partial specialist founders, and 4.66% for entrepreneurial ventures with full generalist founders. Such

selectivity might be interpreted as an increase in scrutiny of entrepreneurial ventures as founders'

category spanning increases even by well-informed insiders, such as venture capitalists. Consistent with

Hypothesis 4, this apparent selection process increases the attractiveness of these entrepreneurial

ventures to investors, especially for firms with full generalist founders, in which venture capitalists

nevertheless retain high levels of equity.

Multivariate Analysis

We then turned to multivariate regression analysis, which allowed us to control for various

alternative explanations, thus enabling a rigorous test of our hypotheses. Table 3 details the ordinary

least squares estimates of the log-transformed IPO proceeds. Model 1 reports results for the set of

control variables. Models 2–5 present the results for testing Hypotheses 1a, 1b, and 2—that is, the

independent and combined effects of founders' category spanning in the industry and functional

dimensions. Model 6 presents the moderating role of VC-retained equity, as proposed in Hypothesis 3.

We found some evidence of heteroscedasticity in the residuals, so in all models, we present the results

with clustered standard errors at the industry level. Alternative approaches, such as not clustering

standard errors or clustering standard errors by year, generated almost identical results. Across the six

models, the mean and maximum variance inflation factors (VIFs) are in the range of 1.36–1.68 and

1.75–3.43, respectively—all well below the commonly accepted threshold of 10 (Kennedy 2003). The

low VIFs indicate that multicollinearity is unlikely to be a problem for the analyses.

Model 1 shows that entrepreneurial ventures with a lead founder with high media coverage,

larger size, high growth, and a larger top management team raise more funds at IPO. Interestingly,

entrepreneurial ventures listing more risk factors also raise more funds at IPO; this might be because

these ventures with higher risks also offer greater upside potential and attract more investment (Ferris

et al. 2012). Consistent with Hypotheses 1a and b, Models 2 and 3 show that founders' industry and

functional category spanning are associated with less funds raised by their entrepreneurial ventures at

IPO. Model 4 shows that these negative associations remain significant when both independent

variables enter the estimation, which is consistent with the idea that audiences devote attention to both

experience dimensions when evaluating an entrepreneurial venture at IPO.

In terms of the magnitude of these main effects, the estimates in Model 4 indicate that compared to entrepreneurial ventures with founders who are industry specialists, those with founders who are industry generalists raise 28.9% (£1.34 million) less funds at IPO (i.e., a multiplicative factor of exp[-0.341*1] = 0.711). Similarly, compared to entrepreneurial ventures with founders who are functional specialists, those with founders who are functional generalists raise 35.5% (£1.89 million) less funds at IPO (i.e., a multiplicative factor of exp[-0.439*1] = 0.645). Thus, the effects of founders' industry and functional category spanning on the funds raised by entrepreneurial ventures` at IPO are significant and sizeable.

To confirm Hypotheses 1 and 2 differently, we re-ran the models with the continuous breadth of experience measures based on the Herfindahl index in the reduced sample of 135 cases (Table 4). We found a negative and significant relationship between breadth of industry experience (Model 1, beta = -1.110, p = 0.04) and the funds raised by the entrepreneurial venture at IPO and a marginally significant negative relationship between breadth of functional experience (Model 1, beta = -1.107, p = 0.09) and the funds raised at IPO. Again, the effects are sizeable. With an increase of one standard deviation in the breadth of the founder's industry and functional experience, the entrepreneurial venture would raise 22.45% and 22.39% less funds at IPO, respectively.

Insert Tables 3 and 4 and then Figure 1 and 2 about here

Model 5 of Table 3 shows that entrepreneurial ventures with founders who are partial specialists raise funds at IPO that are statistically indistinguishable from those whose founders are full specialists. However, in support of Hypothesis 3, we found that entrepreneurial ventures with founders who are full generalists raise less funds at IPO than those with founders who are either full specialists (see Model 5 in Table 3) or partial specialists (the marginal effect difference between partial specialists and full generalists is -0.457, t-statistic = -2.26, p = 0.03). These findings provide support for Hypothesis 3. Founders' category spanning appears to be particularly problematic when such spanning occurs in both industry and functional dimensions, and the effect is again substantial. Compared to entrepreneurial ventures with founders who are full generalists, those with founders who are full specialists raise 52.6% more funds at IPO (i.e., a multiplicative factor of exp[-0.747*1] = 0.474). To test Hypothesis 3

differently, we used the continuous Herfindahl index measures of industry and functional experience breadth and ran an interaction between industry experience breadth and functional experience breadth (see Table 4). We found a negative and marginally significant interaction effect (Model 2, beta = -3.414, p = 0.08). We plotted the lines in Figure 1 to confirm the effect.

Finally, Model 6 of Table 3 tests Hypothesis 4, which predicted that the proportion of VC-retained equity increases the funds raised at IPO more for entrepreneurial ventures with founders who are generalists in both industry and function than (a) those with founders who are specialists in either industry or function and (b) those with founders who are specialists in both industry and function. The coefficient for the interaction between partial specialists and VC-retained equity is not significant. However, the coefficient for the interaction between full generalists and VC-retained equity is statistically significant and positive, suggesting that when venture capitalists retain more equity, there is a positive effect on the funds raised at IPO for entrepreneurial ventures with founders who are full generalists. Specifically, an increase of one standard deviation in VC-retained equity is associated with a 37.8% increase in the funds raised at IPO for entrepreneurial ventures with founders who are full generalists (i.e., a multiplicative factor of exp[2.967*0.108] = 1.378).

A question arises here: when is the compensating role of VC-retained equity large enough for entrepreneurial ventures with full generalist founders to acquire equal or larger amounts of resources than those with partial or full specialist founders? To provide a tentative answer to this question, we created Figure 2 from the estimates in Model 6 of Table 3 to compare resource acquisition at IPO for entrepreneurial ventures with partial specialist or full generalist founders vis-à-vis those with full specialist founders across the observed range of VC-retained equity. At low levels of VC-retained equity, entrepreneurial ventures with full generalist founders raise less funds at IPO than those with partial or full specialist founders. However, when VC-retained equity surpasses 0.24 (i.e., above the 86th percentile in the sample), entrepreneurial ventures with full generalist founders begin to raise equal or more funds at IPO than those with partial specialist founders. Further, when VC-retained equity rises above 0.33 (i.e., above the 92th percentile in the sample), entrepreneurial ventures with full generalist founders begin to raise equal or more funds at IPO than even those with full specialist founders. Overall, increases in VC-retained equity consistently lead to more funds raised at IPO for entrepreneurial

ventures with full generalist founders. However, only at very high levels of VC-retained equity does venture capitalist ownership appear to fully offset the penalty associated with category spanning in both experience dimensions.

Sensitivity Analysis and Additional Empirical Tests

As a robustness check, we explored alternative outcome variables that are popular measures of resource acquisition at IPO. Specifically, we re-ran the analysis to predict *end-of-IPO-day market value* (number of shares issued multiplied by the end-of-IPO-day share price), which captures the reaction of the public market to the IPO. Moreover, we predicted *issue valuation premium*, which is the difference between the pre-IPO book value per share and the IPO offer price multiplied by the number of shares issued, all log-transformed (Martens et al. 2007, Stuart et al. 1999). This variable is popular in the entrepreneurship literature because it captures the net amount of capital raised by an entrepreneurial venture that the entrepreneur can directly use to fund operations and growth (Martens et al. 2007). The results match our main results for IPO proceeds, and we present the results for these models in the online appendix.

We ran a robustness test with the sample of all founders, clustered by firm. Both industry generalists (coefficient= -0.28, t-statistic = -1.76, p = 0.08) and functional generalists (coefficient= -0.14, t-statistic = -1.06, p = 0.29) had a negative coefficient for the funding raised at IPO, but the effects were marginally significant or non-significant. Full generalists had a negative and statistically significant effect on the funding raised (coefficient=-0.41, t-statistic=-2.15, p =0.03). Overall, the general direction of the effects was consistent with the models focusing on the lead founders only. As expected, the significance levels and the effect sizes were lower for the all-founder sample because the cofounders diluted the effect of the lead founder. We also ran two robust checks to deal with firms whose lead founders were somewhat ambiguous (9 cases in total), such as when both the founders were joint managing directors. In the first robustness test, we excluded the ambiguous cases. In the second robustness test, we substituted the lead founder with the plausible alternative founder. For both these tests the results remained consistent with the original full-sample analysis. We present these results in the online appendix.

STUDY 2: LABORATORY EXPERIMENT

Despite its empirical strength, Study 1 has some inherent limitations; namely, we could not (1) control for all possible alternative explanations for why investors invested in a particular entrepreneurial venture at IPO, (2) empirically establish causality or control for endogeneity, or (3) test trust as an underlying mechanism in the relationship between lead founders' specialization and the funds raised at IPO (Hypothesis 2). To tackle the above limitations, we designed a laboratory experiment of an entrepreneurial venture at IPO in which we manipulated the lead founder's industry and functional experience breadth. We captured the investors' evaluations of the presented entrepreneurial venture This scenario-based experimental method is known as a "factorial survey approach" (Rossi and Anderson 1982), to which we now turn.

We modeled our research design for Study 2 on two recent studies using business students as proxies for investors to evaluate entrepreneurial investment propositions (Bigelow et al. 2014, Chen et al. 2009). To increase ecological validity, we recruited 160 participants who were knowledgeable about investments—namely, students earning finance degrees at a prominent business school in London, United Kingdom. The participants were studying for a master of science in finance (n = 67), a master of science in investment management (n = 47), or a bachelor of science in investment and financial risk management (n = 46). The sample size was the result of our opportunity to access finance students (i.e., the available classes gave us access to 160 participants), and it was comparable with our exemplars (Bigelow et al. [2014] had 222 participants and Chen et al. [2009] had 126 participants). Power tests confirmed that the sample size was sufficient; namely, based on the regression estimates of the observation data, we calculated that the minimum sample size required to achieve a power level of 0.8 in the experiment was 142 (MacCallum et al. 1996). Most participants were male (51.25%), and the mean age was 23.79 years (S.D. = 3.74).

All participants were studying to earn a finance degree and training for a finance career instead of simply being enrolled in a finance module. Consequently, the sample members had taken a range of courses on investing. They were also formally trained to invest in stocks and had regular practice sessions using simulators with a live connection to the LSE. Also, 52.83% of the participants had work experience in the finance industry, 37.74% had real-life investment experience, and 20.00% were nascent entrepreneurs. Therefore, we were satisfied that despite the participants' young age and the fact

that they were nascent rather than experienced investors, they were knowledgeable about the context and the activity. To avoid leading participants to conclusions, we did not initially brief them about the study's purpose; we simply explained that we had selected them to participate in the experiment because of their interest in and knowledge of investing. We offered participants incentives to concentrate on the task, which were financial (a £10 voucher for a major online retailer) and non-financial (a job reference from a senior faculty member on the research team). Consistent with prior studies (e.g., Bigelow et al. 2014), these incentives were framed as prizes for the "best" answers (complete and consistent), aiming to appeal to the participants' competitive spirit and enhance engagement. We checked all the questionnaires for completeness and consistency (e.g., scale reliability, non-conflicting answers), and then we randomly selected 10 participants (6.25% of the sample) for the prizes.

We randomly assigned participants to one of four conditions. We asked them to evaluate an entrepreneurial venture at IPO with a lead founder who was either a full specialist (Condition 1), an industry specialist but functional generalist (Condition 2), a functional specialist but industry generalist (Condition 3), or a full generalist (Condition 4). We asked participants to take on the role of a financial analyst working for an institutional investor and evaluate the particular entrepreneurial venture at IPO. We modeled the entrepreneurial venture in our experiment on a real venture in our dataset—a public relations agency going public to fund growth via acquisitions. We obtained information from the real firm's prospectus and changed the names (of the people and the firm) and dates of events to create a fictitious firm for our experiment. We presented participants with a packet of information designed to emulate a real prospectus, enabling us to hold all other aspects of the IPO constant while varying the background of the lead founder (in line with the method used by Bigelow et al. [2014]).

In practice, once the registration statement for an IPO is approved and the initial prospectus is distributed to institutional investors, the lead founder, members of the top management team, and the lead underwriter promote the IPO through a three- to four-week roadshow. The roadshow involves the founder (and others) making several presentations a day to institutional investors who express interest in the firm (Bigelow et al. 2014). To simulate the founder's presentation at this roadshow, we produced a short video pitch by the lead founder to complement the written information about the IPO in our experiment. We recruited an experienced entrepreneur who was also an amateur actor (50 years old) to

play the role of the lead founder for the video presentation. In real life, this entrepreneur was the lead founder of a marketing and communications agency of similar type and size to the public relations agency presented in our experiment, making it easy for him to "get into" the role. We hired an experienced media company to produce, film, and edit the video professionally. The average length of the four versions of the video was 3 minutes and 54 seconds. The four versions were identical for the most part—the founder talked about the firm's services, market potential, and plans for the funds raised. The versions only differed when the lead founder presented his background (about 1 minute and 20 seconds). We offer the four versions of the lead founder's background in the online appendix.

After randomly assigning participants to conditions, we presented them with the IPO prospectus and the video presentation relevant to their assigned condition (in line with Chen et al. [2009]). There were no significant differences in participants' gender, age, or prior finance and entrepreneurial experience across the four conditions, which indicates that the random allocation of investors across conditions worked well. After participants had read the information about the IPO and watched the video pitch from the lead founder, we asked them to think for 15 minutes about the investment proposition and answer a short questionnaire. We captured several variables in the questionnaire, as presented below.

To check whether the experimental manipulation worked, we asked participants their perceptions of the lead founder's *industry background* (continuum from 1 = industry generalist to 7 = industry specialist) and *functional background* (continuum from 1 = industry generalist to 7 = industry specialist). We found that the mean value for participants' perceptions of the lead founder's industry background (5.157) for the two industry specialist conditions (Conditions 1 and 2 combined) is significantly higher than the mean value (3.558) for the two industry generalist conditions (Conditions 3 and 4 combined) (mean difference = 1.598, p = 0.00, Cohen's d = 0.931). Moreover, the mean value (5.167) for participants' perceptions of the lead founder's functional background for the two functional specialist conditions (Conditions 1 and 3 combined) is significantly higher than the mean value (3.902) for the two functional generalist conditions (Conditions 2 and 4 combined) (mean difference = 1.264, p = 0.00, Cohen's d = 0.815). Therefore, we concluded that the experimental manipulation worked well.

Participants also evaluated their level of *trust in the lead founder*. This measure was adapted from Sapienza and Korsgaard (1996) and included five items measured on a seven-point scale (1 = strongly disagree to 7 = strongly agree): (1) "I trust the lead founder"; (2) "I believe the lead founder is inconsistent and unreliable" (reverse coded); (3) "When the main founder makes decisions that are different from decisions that I would make, I trust the lead founder has good reasons for making these decisions"; (4) "Taking all things into consideration, I'm satisfied with the lead founder"; and (5) "I believe the lead founder will be honest in dealings with me." The five items converge with a Cronbach's alpha of 0.826.

We also asked participants about the financial resources they would commit to this entrepreneurial venture at IPO. The outcome variable of *funds raised at IPO* was captured as *the proportion of funds available that the investor would recommend investing in the IPO*. This variable (measured as a percentage) was adopted by Bigelow et al. (2014) and was positioned as an experimental equivalent to the "funds raised at IPO," which was the outcome variable in Study 1. A higher proportion of funds from many prospective investors indicates more funds raised by the entrepreneurial venture at IPO. This proportional allocation measure has the additional advantage of being realistic, serving as an implicit reminder to investors that funds are limited. A larger proportional allocation of available funds to the focal IPO would lower allocation to alternative investments.

Furthermore, in line with Chen et al. (2009), we asked participants to indicate the reasons for their investment evaluations. We listed five possible reasons: (1) "The business model makes sense," (2) "The product is creative," (3) "The lead founder has a strong background," (4) "There is an attractive market for the product," and (5) "The business idea is profitable." We asked participants to check all reasons that applied and encouraged them to list any other reasons not provided on the list. In line with our expectations, Reason 3 ("The lead founder has a strong background") was checked by 38.99% of participants. Participants also checked Reason 4 (48.75%), Reason 1 (48.13%), Reason 5 (38.75%), and Reason 2 (20.63%). These results are consistent with findings from previous research (e.g., Chen et al. 2009), indicating the importance of lead founders as a criterion of investment decisions.

To test Hypotheses 1 and 3, we compared the means for the percentage of funds (investment proportion) in the different conditions (see Table 5). The results show that the industry specialist

conditions (Conditions 1 and 2 combined) raise more funds (12.36%) vis-à-vis the industry generalist conditions (8.85%) (Conditions 3 and 4 combined) (mean difference = 3.51%, p = 0.04, Cohen's d = 0.271). Moreover, the functional specialist conditions (Conditions 1 and 3 combined) raise more funds (12.54%) vis-à-vis the functional generalist conditions (8.90%) (Conditions 2 and 4 combined) (mean difference = 3.64%, p = 0.04, Cohen's d = 0.281). These results confirm Hypotheses 1a and 1b. To test Hypothesis 3, we ran a pairwise t-test between conditions. We found that full specialists raise significantly more funds at IPO than full generalists. More specifically, the full generalist condition (Condition 4) attracts the lowest investment proportion (7.24%), which is 50.65% lower than the proportion for the full specialist condition (14.67%) (Condition 1) (mean difference = -7.43%, p = 0.01, Cohen's d = 0.560). The two partial specialist conditions (Conditions 2 and 3 combined) raise 10.36% of the funds, which is 43.09% more than the funds raised for the full generalist condition (7.24%) (Condition 4) (mean difference = 3.12%, p = 0.03, Cohen's d = 0.288) and 29.38% less (marginally lower in statistical terms) than the funds raised for the full specialist condition (14.67%) (Condition 1) (mean difference = -4.31%, p = 0.09, Cohen's d = 0.298). These results support Hypothesis 3.

Insert Table 5 and Table 6 about here

We also ran regressions with the experiment-based data to test whether the founder's category spanning affects the funds raised, controlling for investors' gender, age, and entrepreneurial experience (see Table 6). The regression results are consistent with the results from the mean-difference analyses above. Specifically, we found that the industry generalist conditions (Conditions 3 and 4 combined) raise less funds than the industry specialist conditions (Conditions 1 and 2 combined) (Model 3, beta = -0.043, p = 0.03). Also, the functional generalist conditions (Conditions 2 and 4 combined) raise less funds than the functional specialist conditions (Conditions 1 and 3 combined) (Model 4, beta = -0.038, p = 0.06). These negative associations are still significant when both independent variables are entered into the estimation simultaneously (Model 5, beta1 = -0.044, p = 0.02; beta2 = -0.040, p = 0.04), which is consistent with Hypothesis 1. To re-test Hypothesis 3, we ran regressions for the partial specialist conditions (Conditions 2 and 3 separated) and for the full generalist condition (Condition 4) against the full specialist condition (Condition 1), which is the counterfactual. We found that the full generalist

condition (Condition 4) raises less funds than the full specialist condition (Condition 1) (beta = -0.084, p = 0.00). Neither of the partial specialist conditions (Conditions 2 or 3) is significantly different in funds raised than the full specialist condition (Condition 1) (beta1 = -0.047, p = 0.14; beta2 = -0.052, p = 0.13).[19]

Finally, we used regression to test the mediating role of trust in the founder in the relationship between the founder's category spanning and the funds raised at IPO (Hypothesis 2). We started with the procedure developed by Baron and Kenny (1986). Specifically, we first regressed investors' trust in the lead founder on the founder's category spanning and found that the partial specialist conditions (Conditions 2 and 3) and the full generalist condition (Condition 4) have significantly less investor trust vis-à-vis the full specialist condition, which is the benchmark (Condition 1) (beta for Condition 2 = -0.480, p = 0.01; beta for Condition 3 = -0.316, p = 0.098; beta for Condition 4 = -0.551, p = 0.00). We then established that trust in the lead founder has a significant and positive effect on the funds raised (beta = 0.019, p = 0.047). Subsequently, we observed that the effect of the founder's category spanning on the funds raised is weakened but not eliminated when controlling for trust in the lead founder (beta for Condition 2 = -0.038, p = 0.22; beta for Condition 3 = -0.046, p = 0.18; beta for Condition 4 = -0.074, p = 0.01). This finding indicates that investors' trust in the lead founder partially mediates the relationship between the founder's category spanning and the funds raised at IPO. To confirm the mediation, we also applied a bootstrapping procedure (Preacher and Hayes 2008), estimating the significance of the path coefficient from the independent variable to the mediator and the path coefficient from the mediator to the dependent variable (see Table 6). We based the 95% confidence intervals (CIs) on bootstrapping estimation with 1,000 replications. The indirect effects of the partial specialist founder (Conditions 2 and 3 combined vis-à-vis the benchmark full specialist Condition 1) (beta = -0.007, 95% CI = -0.019 to -0.001) and full generalists (Condition 4 vis-à-vis the benchmark full specialist Condition 1) (beta = -0.010, 95% CI = -0.029 to -0.002) on the funds raised via investors' trust in the lead founder are statistically significant (p < .05), which supports the mediation effect.

Additional Analyses

We coded for participants' investment experience and work experience in finance (two binary variables, 1 = some experience and 0 = no experience). We then tested these variables, both separately

and combined, first as controls and then as moderators. We found that none of the participant experience variables have a significant effect on either trust (the mediator) or investment (the dependent variable). Moreover, none of these experience variables have a significant moderating effect on the main results. Based on these tests, we concluded that differential experience (at least among finance students) does not moderate our findings.

STUDY 3: ONLINE EXPERIMENT

With Study 3, we aimed to confirm the results of Study 2 with a larger pool of experienced investors. The online experiment (Study 3) followed the same design as the laboratory experiment (Study 2), and we used a Qualtrics panel of stock investors. Qualtrics is a survey platform that researchers are increasingly using for studies (e.g., see a recent application by Halh and Ha [2020]). All participants were offered financial incentives of up to $68 to participate in our 20-minute online experiment. Following the power tests mentioned in Study 2, the minimum sample size required to achieve a power level of 0.8 in the experiment was 142. We aimed for, and eventually achieved, the largest sample we could afford with our budget (n = 350). Our sample included both UK-based and US-based stock investors to increase the geographical generalizability of the findings.

We randomly assigned participating investors to one of the four conditions. We asked them to evaluate the IPO firm after reading the prospectus and watching the video pitch by the lead founder. In collaboration with the Qualtrics team, we introduced attention checks in different parts of the survey to filter out inattentive investors. Of the 350 investors, 79.71% were based in the United Kingdom and 20.29% in the United States. Further, 59.14% of the investors were male, and the mean age was 39.41 years. On average, investors had six years of experience working in the finance industry (S.D. = 7.34) and 4.9 years of experience in evaluating investments (S.D. = 6.53). Consistent with Study 2, investors highlighted the importance of the lead founder's role in their investment decisions. Prompted to indicate the reasons for their investment evaluations, 46.13% of the investors chose the option "The lead founder has a strong background."

In this study, we included a manipulation check at the end of the survey to avoid priming investors. Specifically, we asked investors about their perceptions of the lead founder's breadth of experience on a continuum from 1 = generalist to 7 = specialist. The manipulation worked well as the

mean value for industry breadth is significantly higher for the industry specialist conditions (5.809) than for the industry generalist conditions (2.138) (mean difference = 3.671, p = 0.00, Cohen's d = 3.206). Also, the mean value for functional breadth is significantly higher for the functional specialist conditions (5.736) than for functional generalist conditions (2.256) (mean difference = 3.480, p = 0.00, Cohen's d = 3.083).

A new feature of Study 3 relative to Study 2 is that we also aimed to model the mediating role of trust in conjunction with perceived consistency (our reasoning behind the trust mechanism) and concerns about competence (an alternative to trust as a mechanism explaining the generalist penalty). Since there is little empirical work on such constructs (a recent notable exception is Hahl and Ha [2020], who used single-item measures), we developed a three-item measure of *concerns about competence* of the lead founder, which we captured on a seven-point scale (1 = strongly disagree to 7 = strongly agree). The items are as follows: (1) "I am concerned that the lead founder does not have the domain expertise to grow this business," (2) "I am concerned that the lead founder does not have the in-depth knowledge to grow this business," (3) "I am concerned about the lead founder's inability to manage the expansion of this business." The Cronbach's alpha of the scale is 0.893. We also developed a three-item measure of *perceived consistency* of the lead founder. The items are as follows (reverse scored): (1) "I am concerned that the lead founder will pivot the firm in new directions not necessarily desired by investors," (2) "I am concerned that the lead founder will exit the business soon to pursue his latest idea," (3) "I am concerned that the lead founder appears to have too many diverse business interests." The Cronbach's alpha is 0.828.

Consistent with Study 2, we asked investors to evaluate their level of trust in the lead founder. Since, by this point, the concept of trust had evolved into a central feature of our work, we developed a more comprehensive measure with 12 items captured on a seven-point scale (1 = strongly disagree to 7 = strongly agree). The scale included all five items from Study 2 plus seven additional items adopted from Connelly et al. (2018): (1) "With confidence, I can rely on the lead founder to keep the promises he made"; (2) "I trust that the lead founder will consistently meet expectations"; (3) "I trust that the lead founder keeps investors' best interest in mind"; (4) "The lead founder will not use opportunities that arise to profit at my expense"; (5) "I don't think it is necessary to be cautious with the lead founder";

(6) "I believe the lead founder will be evenhanded in his dealings with investors"; and (7) "This is one of the most trustworthy lead founders with whom I could invest." The Cronbach's alpha for the scale is 0.934.

Consistent with Study 2, we captured the main outcome variable of funds raised at IPO as the proportion of available funds the investor would recommend investing in the entrepreneurial venture at IPO.[20] As shown in Table 7, the proportion of funds raised is greater (24.05% more) for entrepreneurial ventures with an industry specialist founder (26.36%) than for ventures with an industry generalist founder (21.25%) (mean difference = 5.11%, p = 0.02, Cohen's d = 0.212). Also, entrepreneurial ventures with a functional specialist founder (24.72%) appear to raise 6.87% more funds than those with a functional generalist founder (23.13%) although this difference is not statistically significant (mean difference = 1.59%, p = 0.27, Cohen's d = 0.065). A pairwise comparison of the investment proportion across the four conditions indicates that the investment proportion for the full generalists (20.51%) is significantly lower (by 23.61%) than that for the full specialists (26.85%) (mean difference = 6.34%, p = 0.03, Cohen's d = 0.268).

Insert Table 7 and Figure 3 about here

The regression analysis for Study 3 replicates our earlier results and supports our main hypotheses, as reported in Table 8. We found that entrepreneurial ventures with industry generalist founders (Conditions 3 and 4 combined) raised significantly less funds than those with industry specialist founders (Conditions 1 and 2 combined) (beta = -0.048, p = 0.04). Also, entrepreneurial ventures with functional generalist founders (Conditions 2 and 4 combined) raised marginally less funds than those with functional specialist founders (Conditions 1 and 3 combined) (beta = -0.042, p = 0.08). Further, entrepreneurial ventures with full generalist founders raised less funds than those with full specialist founders (beta1 = -0.085, p = 0.005, as shown in Model 5, Table 8). Finally, we did not find a significant difference in funds raised between entrepreneurial ventures with partial specialist founders and those with full specialist founders (beta1 = -0.042, p = 0.23; beta2 = -0.049, p = 0.15). Overall, the above regression results support Hypotheses 1a and 3 and partially support Hypothesis 1b (marginally significant findings for functional experience).[21]

We then tested a path model (presented in Figure 3), which proposes that a generalist lead founder reduces the funds raised at IPO via lower perceived consistency and lower trust. The model also considers a parallel mechanism—that generalists create concerns about competence, which leads to less funds. The purpose of this model was to test whether the trust mechanism works alongside another (or alternative) mechanism of the generalist penalty (the "jack of all trades and master of none" argument).

To test this model, we used structural equation modeling (SEM). We first specified a confirmatory factor analysis to test the fit of our measurement model with item-level indicators for the three latent variables mentioned above, which demonstrates good fit to the data ($\chi 2$ [132] = 305.216, p = 0.00; Comparative Fit Index [CFI] =0.957; Root Mean Square Error of Approximation [RMSEA] = 0.061). Then we tested the structural model of Figure 3, which generally exhibits good fit to these data ($\chi 2$ [238] = 693.131, p = 0.00; CFI = 0.892; RMSEA = 0.074). The direct effect of the full generalist condition (vis-à-vis the full specialist condition) on the funds raised at IPO is negative (beta3 = -0.126, p = 0.02), consistent with Study 2. The path coefficients from the founder's category spanning to investors' trust suggest that a functional specialist and industry generalist founder (beta2 = -0.115, p = 0.06) or a full generalist founder (beta3 = -0.113, p = 0.07) negatively affect investors' trust in that founder (vis-à-vis a full specialist). In addition, the path coefficient from investors' trust in the lead founder to the funds raised at IPO is positive (beta = 0.325, p = 0.00), indicating that investors' trust in the lead founder contributes to funding of the focal entrepreneurial venture at IPO.

To test the mediating role of the consistency-trust path, we conducted a bootstrapping mediation analysis with 1,000 replications (see Table 9). The results show that a full generalist founder (vis-à-vis a full specialist founder) has a negative and significant indirect effect on the funds raised at IPO via investors' trust (-0.020, 95% CI = -0.050 to -0.0001) and a negative and significant indirect effect on the funds raised via investors' perceived consistency and then trust (-0.006, 95% CI= -0.018 to -0.0003). The functional specialist and industry generalist condition (vis-à-vis the full specialist condition) also has a negative and significant indirect effect on the funds raised at IPO via the founder's perceived consistency and then trust (-0.006, 95% CI = -0.020 to -0.0002). Interestingly, we did not find a significant indirect effect of the founder's category spanning on the funds raised at IPO via concerns

about the lead founder's competence. Therefore, in the IPO context, the effect of founders' breadth of experience on the funds raised appears to be due to issues related to consistency and trust rather than competence.

Insert Tables 8 and 9 about here

DISCUSSION

Previous research has devoted little scholarly attention to investors' evaluations of founders during the later stages of their entrepreneurial ventures' development, specifically at IPO (a critical milestone in a venture's growth stage [Jain and Kini 1999, Souitaris et al. 2020]). Thus, the mechanisms driving this process remain largely unknown. In addition, from a theoretical perspective, the IPO represents a social evaluation context in which investors (the audience) do not just evaluate founders (producers) but also finance them, which might reveal new mechanisms at play. Hence, in this study, we explored the effects of founders' category spanning in two dimensions of experience on resource acquisition by entrepreneurial ventures at IPO. In this context, investors categorize founders of entrepreneurial ventures according to their industry background (e.g., an oil-and-gas person, an insurance person, etc.) and functional background (e.g., a marketing person, an R&D person, etc.) (Kacperczyk and Younkin 2017). We theorized and tested how founders' category spanning in these two dimensions, separately and combined, affect entrepreneurial ventures resource acquisition— namely, the funds raised at IPO.

We found that entrepreneurial ventures with founders who span categories in each dimension face a penalty in raising funds. Entrepreneurial ventures with founders who are full generalists (span categories in both dimensions) are the worst performers in raising funds at IPO. In contrast, those with full specialist founders are the best performers. Most importantly, entrepreneurial ventures with founders who are partial specialists (i.e., specialists in one of the two categories) perform significantly better than those with full generalists and not significantly worse than those with founders who are full specialists. Therefore, specializing in one of the two category dimensions (either industry or function) reduces or eliminates the penalty of category spanning in the other dimension. We also found that investors' trust in founders mediates the relationship between founders' boundary spanning and the

funds raised by their entrepreneurial ventures at IPO. Finally, we found that VC affiliations (an external expert endorsement) can offset the penalty of category spanning, especially when category spanning occurs in multiple dimensions. [22]

Theoretical Contributions and Implications

The above findings make three distinct contributions to the management literature. First, we add new insights to inform the important debate in the organizational literature on the impact of founders' breadth of experience—generalist (Astebro and Thompson 2011, Kacperczyk and Younkin 2017, Lazeer 2004, 2005) versus specialist founders (Leung 2014, Leung and Sharkey 2014, Zuckerman et al. 2003)—by theorizing and testing investors' evaluations of two key dimensions of founders' experience for entrepreneurial ventures. We extend the recent pioneering work of Kacperczyk and Younkin (2017) by applying their novel bi-dimensional categorization of founder experience (industry and function) to a different stage of the entrepreneurial process (entrepreneurial ventures at a later stage [IPO milestone] instead of entrepreneurial entry). Interestingly, we observed that the main effects of specialization for resource acquisition by entrepreneurial ventures at IPO differ from specialization's impact on the early stage of entry into entrepreneurship. While Kacperczyk and Younkin (2017) found that breadth of functional experience has a positive main effect on the likelihood of entrepreneurial entry (with industry specialization enhancing the positive main effect), we found that breadth of functional experience has a negative main effect on funds raised at IPO (with industry specialization reducing the negative main effect).[23] We propose that this difference is likely due to the stage of the entrepreneurial process (early stage versus IPO stage). Therefore, in combination with Kacperczyk and Younkin (2017), we reconcile the theoretical arguments and empirical findings detailed in the literature. Specifically, while generalist founders might be beneficial for starting up a venture, it appears that public investors have less trust in such multifaceted founders at the later stage of IPO. Indeed, for these later-stage entrepreneurial ventures, investors trust "consistent" specialists to scale the business.[24] Overall, by shifting the focus to the "public" investors who evaluate founders at the IPO (later) stage, we show that the generalist discount (or advantage) of actors depends on the timing of the evaluation, which is a new theoretical insight for the social categorization theory.

Second, we contribute to the more general literature on social categorization (Glynn and Navis 2013, Halh and Ha 2020, Vergne and Wry 2014, Younkin and Kashkooli 2020, Zuckerman 1999) by identifying a new mechanism (i.e., trust as mediator) to explain the generalist penalty effect (Zuckerman 1999)—that is, we link producers' specialization to audiences' evaluations of those producers. Our experiment-based design (Studies 2 and 3) allowed us to gain access to investors' decision-making process (going beyond archival data) to gain new insights into the role of trust. Building on recent studies on social categorization hinting at the importance of trust (Hahl and Zuckerman 2014, Hahl, Zuckerman, and Kim 2017, Phillips, Turco, and Zucherman 2013) and based on our context of entrepreneurial ventures at IPO, we theorized and tested a trust-based mechanism that can help explain the generalist penalty. Specifically, a producer's (lead founder's) category spanning signals inconsistency and reduces the audience's (investor's) trust in that producer. In turn, low trust leads to low evaluations of a generalist producer by the audience (i.e., less funds raised by a generalist lead founder at IPO). This (lack of) trust mechanism of the generalist penalty is theoretically distinct from, but could be empirically related to, other known mechanisms, such as ambiguity, inauthenticity, concerns about capabilities, and commitment. (Mis)trust acts as a mechanism for the generalist penalty in contexts in which audience members go beyond evaluating a producer to make themselves vulnerable by entering into an economic relationship with that producer.

Finally, we contribute to social categorization theory by extending the recent theoretical discussion about the boundary conditions of the generalist penalty (Alexy and George 2013, Paolella and Durand 2016, Pontikes 2012). For example, research has found that category characteristics (Kovács and Hannan 2010, Ruef and Patterson 2009), the focal audience's expectations (Paolella and Durand 2016, Pontikes 2012), and the context of the categorized entity (Alexy and George 2013, Vergne 2012) influence the relationship between category spanning and the audience's evaluations. These findings suggest that there is more nuance in the application of the generalist penalty. We extend this discussion by offering two novel moderators of the negative baseline relationship between producers' category spanning and their audiences' evaluations. First, producers specializing in a salient category dimension reduces the category-spanning penalty in another salient category dimension. In our context, entrepreneurial ventures with a lead founder who is a specialist in one salient dimension (e.g., function)

can offset (partly or fully) the negative effect of the founder being a generalist in another salient dimension (e.g., industry), at least when it comes to entrepreneurial ventures raising funds at IPO. More generally, our study emphasizes the importance of investigating multidimensional category spaces. It appears that producers do not have to be a specialist in every category dimension to be favorably evaluated by external audiences. Also, we provide insights into the role of third-party affiliations in legitimizing category spanners and improving their appeal to external audiences. We submit that affiliations with credible third parties (e.g., venture capitalists) can help offset the penalty associated with category spanning, especially when such spanning occurs in multiple dimensions.

Scope Conditions, Limitations, and Further Research[25]

Our work has some limitations, which create opportunities for further research. First, we acknowledge that our focus on the context of entrepreneurial ventures at IPO may reduce the generalizability of our findings. Although our dataset spans 12 years and includes the whole population of entrepreneurial IPOs in the AIM in London, we acknowledge that only a small portion of ventures list in the open market. Indeed, most firms raise money through other channels, such as business angels, venture capitalists, or banks. Whether the generalist penalty is also present for these funding modes remains to be investigated. We attempted to collect data on a matched sample of private ventures to predict selection into IPO as the first stage of the model followed by a prediction of IPO proceeds in the second stage (e.g., as in Lungeanu and Zajac 2016, Stuart et al. 1999). Still, we could not find accurate UK data about private matched companies' financials or their founders' profiles over time.[26] Identifying datasets that would allow for such two-stage tests is a worthwhile direction for future research as it would remove the concern of selection bias. However, we submit that IPO firms are a conservative context to test the effects of founders' specialization on their ability to acquire resources. Merluzzi and Phillips (2016) suggested that when a strong selection mechanism is present in the institutional context, the effects of specialization will be reduced or disappear. Since achieving an IPO is difficult and rare, finding founder specialization effects in the selected population of entrepreneurial ventures at IPO might mean that stronger effects are likely to be found in broader samples of growing entrepreneurial ventures.

Another limitation of our observational data is the potential endogeneity issue. Selection into the independent variable (the lead founder's specialization) might be endogenous to IPO outcomes (Bruton et al., 2010, Useche 2014). We recognized this problem inherent in observational data, so we ran two additional experimental studies to address the issue. Moreover, we believe that in this setting, the independent variable (the lead founder's specialization) is unlikely to be endogenous to the investor-evaluation system as reverse causation is hard to imagine: founders cannot change their background to file for an IPO (or if they did, it would be against the law, and they would face sanctions). Perhaps if the lead founder of a venture was changed at some point before IPO, then this could introduce endogeneity. We had 11 cases of lead-founder change before IPO, and we ran a robustness check by removing these cases from the sample. The results remain substantially the same.

Furthermore, our sample comprises UK IPO firms (specifically in the AIM). It is an empirical question as to whether the findings generalize to IPO ventures in other countries. We note that the average market value of firms that list in the AIM is smaller than that of firms in the United States. However, since the United Kingdom is a big market for IPOs (the busiest market in Europe), these IPOs are worth studying given the relative lack of non-US-based IPO studies. To improve the geographical generalizability of our results, we included investors from both the United States and the United Kingdom in Study 3, and we found that investors' location did not impact the results.

Furthermore, we proposed and found that trust mediates the positive relationship between founders' specialization and resource acquisition. The context of IPO-stage ventures might bound the scope of this finding. Given that generalist entrepreneurs do better at start-up (Lazeer 2004, Kacperczyk and Younkin 2017), it is unclear whether and how trust also plays a role during the entry stage. This role of trust in early-stage ventures is an interesting direction for future research. We speculate that trust is a generally applicable mechanism explaining the penalty or bonus of category spanning, but in the context of entrepreneurship, specialization affects trust in the opposite direction depending on whether ventures are in the early stage or growth stage. At start-up (i.e., early stage), resource holders might trust the broad capabilities of a generalist founder more as they look for a "one-person band" that can execute diverse tasks. However, during the growth stage of the entrepreneurial process (at IPO), investors have new concerns over a generalist founder's consistency (e.g., Is the founder ready to move

on? [Wasserman 2008]), which reduces trust and leads to discounting, as we observed. More broadly, we reiterate our call for further research on the applicability of trust as a mechanism to explain the generalist penalty (as in our case) and the generalist bonus (in the start-up phase).

Conclusion

We studied whether lead founders' breadth of industry and functional experience (as in Kacperczyk and Younkin 2017) affect resource holders' evaluations of entrepreneurial ventures at IPO. We found that while entrepreneurial ventures with category-spanning founders are penalized for each dimension separately (industry and function), as predicted by the categorical imperative thesis (Zuckerman 1999), the penalty is reduced or eliminated for partial specialist founders. In combination with the work of Kacperczyk and Younkin (2017), we propose that the effects of specialization differ for resource acquisition at the later stage of IPO vis-à-vis entrepreneurial entry. In broader theoretical terms, we also contribute a new mechanism (i.e., trust) to explain the generalist penalty. Inspired by recent work in social categorization theory (Hahl and Zuckerman 2014, Hahl, Zuckerman, and Kim 2017, Phillips, Turco, and Zucherman 2013), we theorized and tested the notion that audiences' trust in producers mediates the relationship between category spanning and audiences' evaluations. Also, we showed that in a multidimensional space, specialization in one categorical dimension can offset—partly or fully—the penalty from category spanning in another dimension. Finally, an external expert endorsement—in our case, intensive VC affiliations—can offset the penalty of category spanning, especially when category spanning occurs in multiple dimensions.

REFERENCES

Adler PS (2001) Market, hierarchy, and trust: The knowledge economy and the future of capitalism. *Organ. Sci.* 12(2): 215-234.

Aldrich HE, Ruef M (2006) *Organizations Evolving.* (Sage Publications, Thousand Oaks, CA).

Alexy O, George G (2013) Category divergence, straddling, and currency: Open innovation and the legitimation of illegitimate categories. *J. Management Studies* 50(2): 173–203.

Almandoz J, Tilcsik A (2016) When experts become liabilities: Domain experts on boards and organizational failure. *Acad. Management J.* 59(4): 1124-1149.

Astebro T, Thompson P (2011) Entrepreneurs, Jacks of all trades or Hobos? *Res. Policy* 40(5): 637-649.

Bammens Y, Collewaert V (2014) Trust between entrepreneurs and angel investors: Exploring positive and negative implications for venture performance assessments. *J. Management* 40(7): 1980-2008.

Barringer BR, Jones FF, Neubaum DO (2005) A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *J. of Bus. Venturing* 20(5): 663-687.

Baron RM, Kenny DA (1986) The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *J. Personality and Social Psychology* 51(6): 1173.

Barry CB, Muscarella CJ, Peavy III JW, Vetsuypens MR (1990) The role of venture capital in the creation of public companies: Evidence from the going-public process. *J. Financial Econom.* 27(2): 447-471.

Beckman CM, Burton MD, O'Reilly C (2007) Early teams: The impact of team demography on VC financing and going public. *J. Bus. Venturing* 22(2): 147-173.

Beckman CM, Burton MD (2008) Founding the future: Path dependence in the evolution of top management teams from founding to IPO. *Organ. Sci.* 19(1): 3-24.

Benson DF, Brau JC, Cicon J, Ferris SP (2015) Strategically camouflaged corporate governance in IPOs: Entrepreneurial masking and impression management. *J. Bus. Venturing* 30(6): 839-864.

Bigelow L, Lundmark L, McLean Parks J, Wuebker R (2014) Skirting the issues: Experimental evidence of gender bias in IPO prospectus evaluations. *J. Management* 40(6): 1732-1759.

Boeker W, Karichalil R (2002) Entrepreneurial transitions: Factors influencing founder departure. *Acad. of Management J.* 45(4): 818-826.

Bottazzi L, Da Rin M, Hellmann T (2016) The Importance of Trust for Investment: Evidence from Venture Capital. *Rev. Financial Studies* 29(9): 2283-2318.

Boulton AJ, Williford A (2018) Analyzing Skewed Continuous Outcomes With Many Zeros: A Tutorial for Social Work and Youth Prevention Science Researchers. *J. the Society for Social Work and Research* 9 (4): 721-740.

Brav A, Gompers P (2003) The role of lockups in initial public offerings. *Rev. Financial Studies.* 16(1): 1-29.

Brau JC, Fawcett SE (2006) Initial public offerings: An analysis of theory and practice. *J. Finance* 61(1): 399-436.

Brown S, Goetzmann W, Liang B, Schwarz, C (2012) Trust and delegation. *J. Financial Econom.* 103(2): 221–234.

Bruton GD, Chahine S, Filatotchev I (2009). Founders, private equity investors, and underpricing in entrepreneurial IPOs. *Entrepreneurship Theory and Practice* 33(4): 909-928.

Bruton GD, Filatotchev I, Chanine S, and Wright M. (2010) Governance, ownership structure, and performance of IPO firms: The impact of different types of private equity investors and institutional environments. *Strategic Management J.* 31 (5): 491-509.

Burt RS (2004) Structural holes and good ideas. *Amer. J. Sociology* 110(2): 349–39.

Butler Jr, JK, Cantrell RS (1984). A behavioral decision theory approach to modeling dyadic trust in superiors and subordinates. *Psychological Reports* 55(1): 19-28.

Campbell K, Tabner IT (2014). Bonding and the agency risk premium: An analysis of migrations between the AIM and the Official List of the London Stock Exchange. *J. International Financial Markets, Institutions and Money 30*: 1-20.

Carpenter MA, Pollock TG, Leary MM (2003). Testing a model of reasoned risk-taking: governance, the experience of principals and agents, and global strategy in high-technology IPO firms. *Strategic Management J. 24*(9): 803-820.

Carroll GR, Swaminathan A (2000) Why the microbrewery movement? Organizational dynamics of resource partitioning in the U.S. brewing industry. *Amer. J. Sociol.* 106(3): 715–762.

Carson Marr J, Pettit N, Thau S (2019) After the fall: How perceived self-control protects the legitimacy of higher-ranking employees after status loss. *Organ. Sci.* 30(6): 1165-1188.

Carter R, Manaster S (1990) Initial public offerings and underwriter reputation. *J. Finance* 45(4): 1045-1067.

Castellucci F, Ertug G. (2010) What's in it for them? Advantages of higher-status partners in exchange relationships. *Acad. Management J.* 53 (1): 149-166.

Certo ST (2003) Influencing initial public offering investors with prestige: Signaling with board structures. *Acad. Management Rev.* 28(3): 432-446.

Certo, ST, Covin JG, Daily CM, Dalton DR (2001a) Wealth and the effects of founder management among IPO-stage new ventures. *Strategic Management J.* 22(6-7): 641-658.

Certo ST, Daily CM, Dalton DR (2001b) Signaling firm value through board structure: An investigation of initial public offerings. *Entrepreneurship Theory and Practice* 26(2): 33-50.

Certo ST, Holcomb TR, Holmes RM (2009) IPO research in management and entrepreneurship: Moving the agenda forward. *J. Management* 35(6): 1340-1378.

Chahine S, Filatotchev I, Wright M (2007) Venture capitalists, business angels, and performance of entrepreneurial IPOs in the UK and France. *J. Bus. Finance & Accounting* 34(3-4): 505-528.

Chahine S, Goergen M (2011) VC board representation and performance of US IPOs. *J. Bus. Finance & Accounting* 38(3-4): 413-445.

Chang S (2004) Venture capital financing, strategic alliances, and the initial public offerings of Internet startups. *J. Bus. Venturing* 19(5): 721-741.

Chatterjee, A., & Hambrick, D. C. (2011) Executive personality, capability cues, and risk taking: How narcissistic CEOs react to their successes and stumbles. *Admin. Sci. Quart* 56(2): 202-237.

Chen XP, Yao X, Kotha S (2009) Entrepreneur passion and preparedness in business plan presentations: a persuasion analysis of venture capitalists' funding decisions. *Acad. Management J.* 52(1): 199-214.

Clarke JS, Cornelissen JP, Healey MP (2019) Actions speak louder than words: How figurative language and gesturing in entrepreneurial pitches influences investment judgments. *Acad. Management J.* 62(2): 335-360.

Clark BH, Montgomery DB (1998) Deterrence, reputations, and competitive cognition. *Management Sci.* 44(1): 62-82.

Colombo MG, Meoli M, Vismara S (2019) Signaling in science-based IPOs: The combined effect of affiliation with prestigious universities, underwriters, and venture capitalists. *J. Bus. Venturing* 34(1): 141-177.

Connelly BL, Crook TR, Combs JG, Ketchen Jr DJ, Aguinis H (2018) Competence- and integrity-based trust in interorganizational relationships: Which matters more? *J. Management* 44(3): 919– 945.

Courtney C, Dutta S, Li Y (2017) Resolving information asymmetry: Signaling, endorsement, and crowdfunding success. *Entrepreneurship Theory and Practice* 41(2): 265-290.

Custódio C, Ferreira MA, Matos P (2013) Generalists versus specialists: Lifetime work experience and chief executive officer pay. *J. Financial Econom.* 108(2): 471-492.

Cyr LA, Johnson DE, Welbourne TM (2000). Human resources in initial public offering firms: Do venture capitalists make a difference? *Entrepreneurship Theory and Practice* 25(1): 77–91.

Daily CM, Certo ST, Dalton DR, Roengpitya R (2003) IPO underpricing: A meta-analysis and research synthesis. *Entrepreneurship Theory and Practice* 27(3): 271-295.

Davidsson P, Honig B (2003) The role of social and human capital among nascent entrepreneurs. *J. Bus. Venturing* 18(3): 301-331.

Davis JH, Schoorman FD, Mayer RC, Tan HH (2000) The trusted general manager and business unit performance: Empirical evidence of a competitive advantage. *Strategic Management J. 21*(5): 563-576.

Deeds DL, Decarolis D, Coombs JE (1997) The impact of firm specific capabilities on the amount of capital raised in an initial public offering: Evidence from the biotechnology industry. *J. Busi. Venturing* 12(1): 31-46.

Dimov DP, Shepherd DA (2005) Human capital theory and venture capital firms: exploring 'home runs' and 'strike outs'. *J. Bus. Venturing* 20(1): 1-21.

Dirks KT (2000) Trust in leadership and team performance: Evidence from NCAA basketball. *J. Applied Psychology* 85(6): 1004-1012.

Dirks K, Ferrin D (2001) The role of trust in organizational settings. *Organ. Sci.* 12(4): 450-467.

Duarte J, Siegel S, Young L (2012) Trust and credit: The role of appearance in peer-to-peer lending. *The Rev. Financial Studies* 25 (8): 2455-2483.

Durand R, Paolella L (2013) Category stretching: Reorienting research on categories in strategy, entrepreneurship, and organization theory. *J. Management Studies* 50(6): 1100-1123.

Edmondson AC, McManus SE (2007) Methodological fit in management field research. *Acad. Management Rev.* 32(4): 1246-1264.

Eisenhardt K, Schoonhoven C (1990) Organizational growth: Linking founding team, strategy, environment, and growth among US semiconductor ventures, 1978-1988. *Admin. Sci. Quart.* 504-529.

Ensley MD, Carland JW, Carland JC (2000) Investigating the existence of the lead entrepreneur. *J. Small Busi. Management* 38(4): 59-77.

Fairchild R (2011) An entrepreneur's choice of venture capitalist or angel-financing: A behavioral game-theoretic approach. *J. Busi. Venturing* 26(3): 359-374.

Ferris SP, Hao Q, Liao MY (2012) The effect of issuer conservatism on IPO pricing and performance. *Rev. Finance* 17(3): 993-1027.

Fesser HR, Willard GE (1990) Founding strategy and performance: A comparison of high and low growth high tech forms. *Strategic Management J.* 11(2): 87-98.

Finkle T (1998) The relationship between boards of directors and initial public offerings in the biotechnology industry. *Entrepreneurship Theory & Practice* 22(3): 5-29.

Filatotchev I, Bishop K (2002) Board composition, share ownership, and 'underpricing' of UK IPO firms. *Strategic Management J.* 23(10): 941-955.

Filatotchev, I. (2006) Effects of executive characteristics and venture capital involvement on board composition and share ownership in IPO firms. *British J. Management* 17(1): 75-92.

Fiske ST, Taylor SE (1984) *Social cognition*. New York: McGraw-Hill.

Florin, J. (2005). Is venture capital worth it? Effects on firm performance and founder returns. *J. Busi. Venturing* 20(1): 113-135.

Frisch D, Baron J (1988) Ambiguity and rationality. *J. Behavioral Decision Making* 1(3): 149-157.

Fulmer C, Gelfand M (2012) At what level (and in whom) we trust: Trust across multiple organizational levels. *J. Management* 38(4): 1167-1230.

Fukuyama F (1995) Trust: The social virtues and the creation of prosperity (Vol. 99). New York: Free press.

Galperin RV, Hahl O, Sterling AD, Guo J (2020) Too good to hire? Capability and inferences about commitment in labor markets. *Admin. Sci. Quart.* 65(2): 275–313

Gehman J, Grimes M (2017) Hidden budge of honor: How contextual distinctiveness affects category promotion among certified B Corporations. *Acad. Management J.* 60 (6): 2294-2320.

Gentry RJ, Harrison JS, Quigley TJ, Boivie S (2021) A database of CEO turnover and dismissal in S&P 1500 firms, 2000–2018. *Strategic Management J.* 42(5): 968-991.

Glynn MA, Navis C (2013) Categories, identities, and cultural classification: Moving beyond a model of categorical constraint. *J. Management Studies* 50 (6): 1124–1137.

Gounopoulos D, Pham H (2018) Specialist CEOs and IPO survival. *J. Corporate Finance* 48: 217-243.

Graebner M (2009) Caveat venditor: Trust asymmetries in acquisitions of entrepreneurial firms. *Acad. of Management J.* 52(3): 435-472.

Gruber M, MacMillan IC, Thompson JD (2013) Escaping the prior knowledge corridor: What shapes the number and variety of market opportunities identified before market entry of technology start-ups? *Organ. Sci.* 24(1): 280-300.

Habib, MA, Ljungqvist AP (1998) Underpricing and IPO proceeds: a note. *Econom. Letters* 61(3): 381-383.

Hahl O, Ha J (2020) Committed diversification: Why authenticity insulates against penalties for diversification. *Organ. Sci.* 31(1): 1-22.

Hahl O, Zuckerman EW (2014) The denigration of heroes? How the status attainment process shapes attributions of considerateness and authenticity. *Amer. J. of Sociology* 120(2): 504-554.

Hahl O, Zuckerman EW, Kim M (2017) Why elites love authentic lowbrow culture: Overcoming high-status denigration with outsider art. *Amer. Sociological R.* 82(4): 828-856.

Hargadon AB, Douglas Y (2001) When innovations meet institutions: Edison and the design of the electric light. *Admin. Sci. Quart.* 46:476-501.

Higgins MJ, Stephan PE, Thursby JG (2011) Conveying quality and value in emerging industries: Star scientists and the role of signals in biotechnology. *Research Policy* 40(4): 605–617.

Hsu G (2006) Jacks of all trades and masters of none: Audiences' reactions to spanning genres in feature film production. *Admin. Sci. Quart.* 51(3): 420–450.

Hsu G, Koçak O, Hannan MT (2009) Multiple category memberships in markets: An integrative theory and two empirical tests. *Amer. Sociological Rev.* 74(1): 150–169.

Huang L, Pearce, JL (2015) Managing the unknowable: The effectiveness of early-stage investor gut feel in entrepreneurial investment decisions. *Admin. Sci. Quart.* 60(4): 634-670.

Jain BA, Kini O (1999) The life cycle of initial public offering firms. *J. Bus. Finance & Accounting* 26(9-10): 1281-1307.

Jensen MC, Meckling WH (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure. *J. Financial Econom.* 3(4): 305-360.

Jose ML, Nichols LM, Stevens JL(1986) Contributions of diversification, promotion, and R&D to the value of multiproduct firms: A Tobin's q approach. *Financial Management* 33-42.

Kacperczyk A, Younkin P (2017) The paradox of breadth: The tension between experience and legitimacy in the transition to entrepreneurship. *Admin. Sci. Quart.* 62(4): 731-764.

Kanagaretnam K, Mestelman S, Khalid Nainar SM, Shehata M (2012) The impact of empowering investors on trust and trustworthiness. *J. Econom. Psychology* 33(3): 566–577.

Kaplan SN, Strömberg PE (2004) Characteristics, contracts, and actions: Evidence from venture capitalist analyses. *J. Finance* 59(5): 2177-2210.

Kennedy P (2003) *A Guide to Econometrics* (The MIT Press, Cambridge).

Keren G, Gerritsen LE (1999) On the robustness and possible accounts of ambiguity aversion. *Acta Psychologica* 103(1-2): 149-172.

Khessina OM, Carroll GR (2008) Product demography of de novo and de alio firms in the optical disk drive industry, 1983–1999. *Organ. Sci.* 19(1): 25-38.

Kim S (2019) The process model of corporate social responsibility (CSR) communication: CSR communication and its relationship with consumers' CSR knowledge, trust, and corporate reputation perception. *J. Bus. Ethics* 154(4): 1143-1159.

Kotha S, Rajgogal S, Rindova V (2001) Reputation building and performance: an empirical analysis of the top-50 pure internet firms. *European Management J.* 19(6): 571–586.

Kovács B, Hannan M (2010) The consequences of category spanning depend on contrast. Negro G, Koçak Ö, Hsu G eds. *Categories in Markets: Origins and Evolution. Research in the Sociology of Organizations* 31(3): 175–201. (Emerald, Bingley, UK)

Krishnan CVN, Masulis R (2011) Venture capital reputation: A survey. Cummings D, eds. *Handbook of Entrepreneurial Finance, Venture Capital and Private Equity*, Oxford University Press: Oxford.

Kroll M, Walters BA, Le SA (2007) The impact of board composition and top management team ownership structure on post-IPO performance in young entrepreneurial firms. *Acad. Management J.* 50(5): 1198-1216.

Kühberger A, Perner J. (2003) The role of competition and knowledge in the Ellsberg task. *J. Behavioral Decision Making* 16(3): 181-191.

Latham, S., Braun, M. R. (2010) To IPO or not to IPO: Risks, uncertainty and the decision to go public. *British J. Management* 21(3): 666-683.

Lazear E (2004) Balanced skills and entrepreneurship. *Amer. Econom. Rev.* 94 (2): 208-211.

Lazear E (2005) Entrepreneurship. *J. Labor Econom.* 23: 649–680.

Leahey E, Beckman CM, Stanko TL (2017) Prominent but less productive: The impact of interdisciplinarity on scientists' research. *Admin. Sci. Quart.* 62(1):105-139.

Lechmann DS, Schnabel C (2014) Are the self-employed really jacks-of-all-trades? Testing the assumptions and implications of Lazear's theory of entrepreneurship with German data. *Small Bus. Econom.* 42(1): 59-76.

Lee JM, Hwang BH, Chen H (2017). Are founder CEOs more overconfident than professional CEOs? Evidence from S&P 1500 companies. *Strategic Management J.* 38(3): 751-769.

Lerner J (1995) Venture capitalists and the oversight of private firms. *J. Finance* 50(1): 301-318.

Lerner DA (2016) Behavioral disinhibition and nascent venturing: Relevance and initial effects on potential resource providers. *J. Busi. Venturing* 31(2): 234-252.

Leung MD (2014) Dilettante or renaissance person? How the order of job experiences affects hiring in an external labor market. *Amer. Sociological Rev.* 79(1): 136-158.

Leung MD, Sharkey AJ (2014) Out of sight, out of mind? Evidence of perceptual factors in the multiple-category discount. *Organ. Sci.* 25(1): 171-184.

Lewicki RJ, McAllister DJ, Bies RJ (1998) Trust and distrust: New relationships and realities. *Acad. Management Rev.* 23(3): 438-458.

Lounsbury M, Rao H (2004) Sources of durability and change in market classifications: a study of the reconstitution of product categories in the American mutual fund industry, 1944–1985. *Social Forces* 82 (3): 969–99.

Loughran T, Ritter JR (2002) Why don't issuers get upset about leaving money on the table in IPOs? *R. Financial Studies* 15(2): 413-444.

Lowry M, Officer MS, Schwert, GW (2010). The variability of IPO initial returns. *J.of Finance*, 65 (2): 425-465.

Lungeanu R, Zajac EJ (2016) Venture capital ownership as a contingent resource: how owner–firm fit influences IPO outcomes. *Acad. Management J.* 59(3): 930–955.

MacCallum RC, Browne MW, Sugawara HM (1996) Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods* 1(2): 130.

Martens M, Jennings J, Jennings P (2007) Do the stories they tell get them the money they need? The role of entrepreneurial narratives in resource acquisition. *Acad. Management J.* 50(5): 1107–1132.

Maxwell AL, Lévesque M (2014) Trustworthiness: A critical ingredient for entrepreneurs seeking investors. *Entrep. Theory Pract.* 38(5):1057–1080.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Acad. Management Rev.* 20(3): 709–734.

Merluzzi J, Phillips DJ (2016) The specialist discount: Negative returns for MBAs with focused profiles in investment banking. *Admin. Sci. Quart.* 61(1): 87-124.

Milbourn TT (2003) CEO reputation and stock-based compensation. *J. Financial Econom.* 68(2): 233-262.

Milanov H, Shepherd DA (2013) The importance of the first relationship: The ongoing influence of initial network on future status. *Strategic Management J.* 34(6): 727-750.

Miller D, Le Breton-Miller I, Lester RH (2011) Family and lone founder ownership and strategic behaviour: Social context, identity, and institutional logics. *J. Management Studies*. 48(1): 1-25.

Molina-Azorin JF (2012) Mixed methods research in strategic management: Impact and applications. *Organizational Research Methods* 15(1): 33-56.

Nagle F, Teodoridis F (2020) Jack of all trades and master of knowledge: The role of diversification in new distant knowledge integration. *Strategic Management J.* 41(1):55-85.

Nahata R (2008) Venture capital reputation and investment performance. *J. Financial Econom.* 90(2): 127-151.

Natividad G, Rawley E (2016) Interdependence and performance: A natural experiment in firm scope. *Strategy Sci*. 1(1):12–31.

Navis C, Glynn MA (2010) How new market categories emerge: Temporal dynamics of legitimacy, identity, and entrepreneurship in satellite radio, 1990-2005. *Admin. Sci. Quart.* 55(3): 439-471.

Navis C, Glynn MA (2011) The entrepreneurial identity: how legitimate distinctiveness affects investors' judgments of new venture plausibility. *Acad. Management Rev.* 36(3): 479–499.

Negro G, Hannan MT, Fassiotto M (2015) Category signaling and reputation. *Organ. Sci.* 26(2): 584-600.

Negro G, Hannan MT, Rao H (2010) Categorical contrast and audience appeal: Niche width and critical success in winemaking. *Industrial and Corporate Change* 19(5) Porac: 1397–1425.

Negro G, Leung MD (2013) "Actual" and perceptual effects of category spanning. *Organ. Sci.* 24(3): 684-696.

Nelson T (2003) The persistence of founder influence: management, ownership, and performance effects at initial public offering. *Strategic Management J.* 24(8): 707-725.

Nguyen BD (2015) Is more news good news? Media coverage of CEOs, firm value, and rent extraction. *Quart. J. Finance* 5(4): 1-38.

Paik Y, Woo H (2017) The effects of corporate venture capital, founder incumbency, and their interaction on entrepreneurial firms' R&D investment strategies. *Organ. Sci.* 28(4): 670-689.

Paolella L, Durand R (2016) Category spanning, evaluation, and performance: Revised theory and test on the corporate law market. *Acad. Management J.* 59(1):330-351.

Phillips N, Tracey P, Karra N (2013). Building entrepreneurial tie portfolios through strategic homophily: The role of narrative identity work in venture creation and early growth. *J. Busi. Venturing* 28(1): 134-150.

Phillips DJ, Turco CJ, Zuckerman EW (2013) Betrayal as market barrier: Identity-based limits to diversification among high status corporate law firms. *Amer. J. Sociol.* 118(4):1023–1054.

Pollock TG, Fund BR, Baker T. (2009) Dance with the one that brought you? Venture capital firms and the retention of founder-CEOs. *Strategic Entrepreneurship J.* 3(3): 199-217.

Pollock TG, Gulati R. (2007). Standing out from the crowd: The visibility-enhancing effects of IPO-related signals on alliance formation by entrepreneurial firms. *Strategic Organ.* 5(4): 339-372.

Pontikes EG (2012) Two sides of the same coin: How ambiguous classification affects multiple audience evaluations. *Admin. Sci. Quart.* 57(1): 81–118.

Porac JF, Thomas H, Wilson F, Paton D, Kanfer A (1995) Rivalry and the industry model of Scottish knitwear producers. *Admin. Sci. Quart.* 40: 203-227.

Preacher KJ, Hayes AF (2008) Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Res. Methods* 40(3): 879-891.

Pulford BD (2009) Short article: Is luck on my side? Optimism, pessimism, and ambiguity aversion. *Quart. J. Experimental Psychology* 62(6): 1079-1087.

Plummer LA, Allison TH and Connelly BL (2016) Better together? Signaling interactions in new venture pursuit of initial external capital. *Acad. Management J.* 59(5): 1585-1604.

Rao HP, Monin, Durand R (2005) Border crossing: Bricolage and erosion of categorical boundaries in French gastronomy. *Amer. Sociol. Rev.* 70(6): 968–991.

Rossi PH, Anderson AB (1982) The factorial survey approach: An introduction. *Measuring Social Judgments: The Factorial Survey Approach* 15-67.

Rousseau DM, Sitkin SB, Burt RS, Camerer C (1998) Not so different after all: A cross-discipline view of trust. *Acad. Management Rev.* 23(3): 393-404.

Ruef M, Patterson K (2009) Credit and classification: The impact of industry boundaries in nineteenth-century America. *Admin. Sci. Quart.* 54(3): 486–520.

Sakhartov AV (2018) Stock market undervaluation of resource redeployability. *Strategic Management J.* 39(4):1059–1082.

Sako M (1992) *Price, quality and trust: Inter-firm relations in Britain and Japan* (No. 18). Cambridge University Press.

Sanders W, Boivie S (2004) Sorting things out: Valuation of new firms in uncertain markets. *Strategic Management J.* 25(2): 167-186.

Sapienza HJ, Korsgaard MA (1996) Procedural justice in entrepreneur-investor relations. *Acad. Management J.* 39(3): 544-574.

Sapienza HJ, Manigart S, Vermeir W (1996) Venture capitalist governance and value added in four countries. *J. Bus. Venturing* 11(6): 439-469.

Schulze WS, Zellweger TM (2021) Property rights, owner-management, and value creation. *Acad. Management Rev.*

Shepherd DA, Ettenson R, Crouch A (2000) New venture strategy and profitability: A venture capitalist's assessment. *J. Busi. Venturing* 15(5-6): 449-467.

Shepherd DA, Zacharakis A (2001). The venture capitalist-entrepreneur relationship: Control, trust and confidence in co-operative behavior. *Venture Capital* 3(2):129–150.

Simons TL, Peterson RS (2000) Task conflict and relationship conflict in top management teams: The pivotal role of intragroup trust. *J. Applied Psychology* 85(1): 102-111.

Sgourev SV, Althuizen N (2014) "Notable" or "not able": When are acts of inconsistency rewarded? *Amer. Sociol. Rev.* 79(2): 282–302.

Souder D, Simsek Z, Johnson SG (2012). The differing effects of agent and founder CEOs on the firm's market expansion. *Strategic Management J.* 33 (1): 23–41.

Souitaris V, Zerbinati S, Peng B, Shepherd D (2020) Should I stay or should I go? Founder power and exit via Initial Public Offering. *Acad. Management J.* 63(1): 64-95.

Stuart TE, Hoang H, Hybels RC (1999) Interorganizational endorsements and the performance of entrepreneurial ventures. *Admin. Sci. Quart*. 44(2): 315–349.

Switzer LN, Bourdon JF (2011) Management quality and operating performance: Evidence for Canadian IPOs. *International J. Bus.* 16(2): 133-149.

Talaulicar T, Grundei J, Werder AV (2005) Strategic decision making in start-ups: the effect of top management team organization and processes on speed and comprehensiveness. *J. Bus. Venturing* 20(4):519-541.

Teodoridis F (2018) Understanding team knowledge production: The interrelated roles of technology and expertise. *Management Sci.* 64(8): 3625-3648.

Teodoridis F, Bikard M, Vakili K (2019) Creativity at the knowledge frontier: The impact of specialization in fast and slow-paced domains. *Admin. Sci. Quart.* 64(4): 894-927.

Useche D (2014) Are patents signals for the IPO market? An EU–US comparison for the software industry. *Research Policy* 43(8): 1299–1311.

Vergne JP (2012) Stigmatized categories and public disapproval of organizations: a mixed methods study of the global arms industry 1996–2007. *Acad. Management J.* 55(5): 1027–1052.

Vergne JP, Wry T (2014) Categorizing categorization research: Review, integration, and future directions. *J. Management Studies* 51(1): 56-94.

Vescio TK, Judd CM, Kwan VS (2004) The crossed-categorization hypothesis: Evidence of reductions in the strength of categorization, but not intergroup bias. *J. Experimental Social Psychology* 40(4): 478-496.

Villalonga B (2004) Diversification discount or premium? New evidence from the business information tracking series. *J. Finance* 59(2):479–506.

Vissa B (2012) Agency in action: Entrepreneurs' networking style and initiation of economic exchange. *Organ. Sci.* 23(2): 492-510.

Walters BA, Kroll M, Wright P (2010) The impact of TMT board member control and environment on post-IPO performance. *Acad. Management J.* 53 (3): 572-595.

Wasserman N (2003) Founder-CEO succession and the paradox of entrepreneurial success. *Organ. Sci.* 14(2): 149-172.

Wasserman N (2008) The founder's dilemma. *Harvard Bus. Rev.* 86(2): 102-109.

Wasserman N (2017) The throne vs. the kingdom: Founder control and value creation in startups. *Strategic Management J.* 38(2): 255-277.

Welbourne TM, Andrews A (1996) Predicting the performance of initial public offerings: should human resource management be in the equation? *Acad. Management J.* 39(4): 891-919.

Welbourne TM, Cyr LA (1999) The human resource executive effect in initial public offering firms. *Acad. Management J.* 42(6): 616-629.

Wry T, Lounsbury M (2013) Contextualizing the categorical imperative: category linkages, technology focus, and resource acquisition in nanotechnology entrepreneurship. *J. Bus. Venturing* 28 (1): 117–33.

Wu G, Dokko G (2007) Typecasting entrepreneurs: Boundary-crossing experience, funding and the performance of ventures. Presentation, *Acad. Management Meetings*, August. Philadelphia, PA.

Wuorinen S, McNamara GM, Pan L (2020) Imprinting Effects of IPO Underpricing on the Future Strategic Actions of High-Tech Firms. In *Acad. of Management Proceedings* (Vol. 2020, No. 1, p. 21388). Briarcliff Manor, NY 10510.

Younkin P, Kashkooli K (2020) Stay true to your roots? Category distance, hierarchy, and the performance of new entrants in the music industry. *Organ. Sci.* 31(3): 604-627.

Younkin P, Kuppuswamy V (2018) The colorblind crowd? Founder race and performance in crowdfunding. *Management Sci.* 64(7): 3269-3287.

Zuckerman EW (1999) The Categorical imperative: Securities analysts and the illegitimacy discount. *Amer. J. Sociology* 104 (5): 1398–1438.

Zuckerman EW, Kim TY, Ukanwa K, Rittmann JV (2003) Robust identities or nonentities? Typecasting in the feature-film labor market. *Amer. J. Sociology* 108 (5): 1018–107.

Figure 1. Interaction between Breadth of Industry and Functional Experience on IPO Proceeds (Based on Continuous Measures of Breadth of Experience)
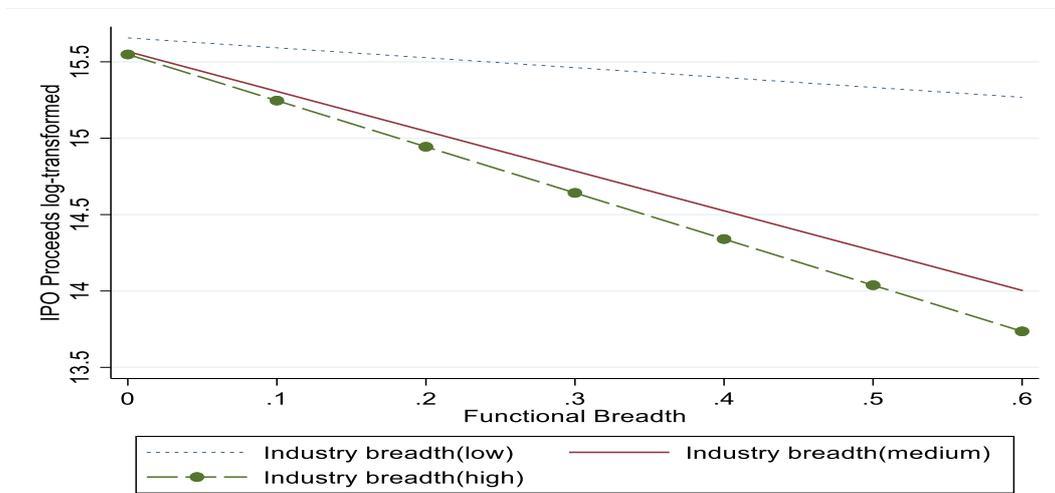
Figure 2. VC-Retained Equity Interactions
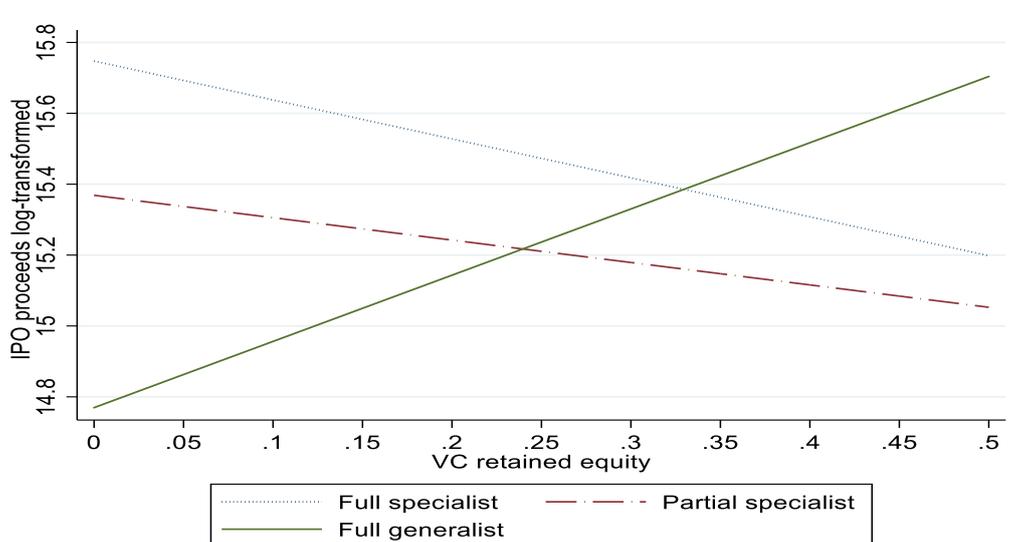
Figure 3. A Trust-Based Model Explaining the Generalist Penalty

Concerns about Competence

beta1 = -0.033
beta2 = -0.032
beta3 = -0.092

-0.096

Founder's Category Spanning

beta1 = -0.051
beta2 = -0.050
beta3 = -0.126*

Funds Raised at IPO

beta1 = -0.080
beta2 = -0.115+
beta3 = -0.113+

Investors' Trust in the Founder

0.325**

-0.079

beta1 = -0.040
beta2 = -0.129+
beta3 = -0.135+

0.231***

Perceived Consistency
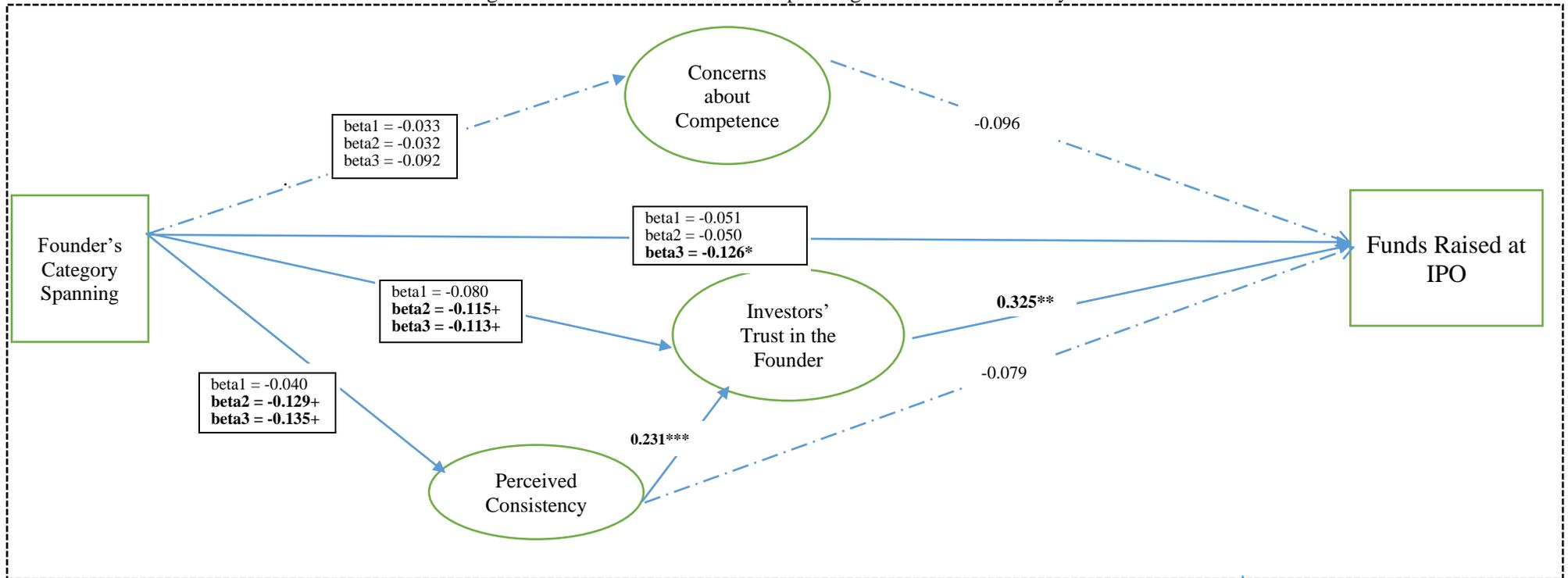
Overall model fit:
x^2 [238] = 693.131, p = 0.00; RMSEA = 0.074; CFI = 0.892
Standardized path coefficients. Significant paths in bold and continuous line.
+ p < .10, * p < .05, ** p < .01, *** p < .001

For founder's category spanning
beta1 = industry specialist and functional generalist vis-à-vis full specialist
beta2 = functional specialist and industry generalist vis-à-vis full specialist
beta 3 = full generalist vis-à-vis full specialist

Controls
Age of investors
Gender of investors (female)
Nascent entrepreneur

Table 1. Study 1—Descriptive Statistics and Correlation Matrix

Variable	Mean	S.D.	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
IPO proceeds [a]	15.19	1.27																															
Industry generalists	0.48	0.50	-0.26																														
Functional generalists	0.69	0.47	-0.17	0.33																													
Partial specialists	0.35	0.48	0.09	-0.40	0.17																												
Full generalists	0.41	0.49	-0.25	0.86	0.56	-0.61																										
VC retained equity	0.09	0.15	0.26	-0.29	-0.20	-0.01	-0.24																										
Performance of the market	14.45	14.30	-0.05	-0.02	-0.16	-0.04	-0.07	0.04																									
Total number of IPOs [a]	5.15	0.73	0.01	-0.10	-0.06	-0.04	-0.06	0.01	0.25																								
Firm age [a]	3.86	0.75	-0.03	0.04	0.09	0.11	0.01	0.03	0.06	0.03																							
Number of risk factors	14.52	7.31	0.37	-0.01	-0.07	0.00	-0.04	0.19	-0.08	-0.21	0.02																						
High-technology industries	0.19	0.40	0.00	-0.07	-0.17	-0.06	-0.08	0.16	0.10	0.03	0.00	0.03																					
B2B ventures	0.88	0.33	0.09	-0.17	0.02	-0.06	-0.05	0.10	-0.10	0.12	0.14	0.09	0.14																				
The size of the venture [a]	14.28	2.07	0.30	-0.08	0.10	0.04	-0.01	0.15	-0.07	-0.11	0.42	-0.02	-0.16	0.15																			
Revenue growth	3.61	22.20	0.01	0.07	0.09	-0.03	0.09	0.02	0.10	0.05	-0.03	-0.02	-0.03	-0.01	0.03																		
Top management team size	3.86	1.12	0.20	-0.05	-0.03	-0.03	-0.02	0.05	-0.11	0.09	0.06	0.01	0.06	0.10	0.06	-0.05																	
Board independence	0.42	0.15	0.02	0.00	-0.01	-0.05	0.02	0.16	-0.02	-0.10	0.14	0.15	0.03	0.11	0.04	0.03	-0.38																
VC board membership	0.04	0.09	0.08	-0.08	-0.01	-0.04	-0.02	0.42	0.09	0.02	-0.04	0.16	0.05	0.03	-0.01	0.22	-0.06	0.05															
Length of the lockup period	13.10	3.46	0.02	-0.13	-0.11	0.10	-0.16	0.03	0.12	0.05	-0.13	-0.07	0.13	0.00	-0.18	0.00	-0.01	0.04	0.12														
Underwriter's prestige	0.17	0.37	0.22	-0.09	0.00	0.02	-0.06	-0.03	0.00	0.04	0.07	-0.10	0.09	0.12	0.18	-0.05	0.04	0.01	-0.07	-0.08													
VC's prestige	0.02	0.13	0.14	0.05	-0.01	-0.10	0.07	0.11	-0.20	-0.07	-0.01	0.18	-0.06	0.05	0.12	-0.02	-0.02	0.14	-0.05	0.00	-0.06												
Length of VC investment	0.95	1.76	0.25	-0.19	-0.07	0.01	-0.14	0.63	0.06	-0.02	0.15	0.26	0.02	0.11	0.21	-0.01	-0.01	0.18	0.45	-0.05	-0.01	0.14											
Equity retained by other institutional investors	0.08	0.12	0.14	-0.10	-0.06	0.08	-0.12	0.08	-0.01	-0.14	0.08	0.09	-0.06	0.05	0.12	-0.06	-0.04	0.14	-0.07	-0.04	0.00	0.04	0.11										
Founder's retained equity	0.28	0.21	-0.29	0.14	0.11	0.00	0.12	-0.40	-0.03	-0.03	0.10	-0.21	-0.05	-0.18	0.07	0.06	0.05	-0.12	-0.15	-0.06	-0.03	-0.13	-0.32	-0.35									
Founder CEO	0.70	0.46	-0.01	0.27	0.39	0.14	0.26	-0.23	-0.01	-0.11	0.20	0.06	-0.22	-0.05	0.10	0.04	-0.06	0.11	-0.08	-0.01	-0.01	-0.01	-0.14	-0.04	0.29								
Founder's age	46.00	8.25	0.13	-0.18	-0.28	0.03	-0.24	0.12	0.01	-0.03	-0.06	0.06	0.11	0.07	-0.04	-0.11	0.15	-0.09	0.15	0.07	-0.04	0.01	0.18	0.13	-0.26	-0.16							
Founder's external board positions	8.95	11.64	-0.03	0.13	-0.13	-0.01	0.01	-0.19	0.01	-0.11	-0.16	-0.05	-0.06	-0.18	-0.04	-0.05	0.07	-0.17	-0.06	-0.09	0.00	-0.01	-0.14	0.04	0.05	-0.01	0.17						
Founder's media status [a]	1.45	1.12	0.23	-0.07	0.04	0.08	-0.05	0.15	0.04	-0.12	0.23	0.26	-0.01	0.00	0.12	-0.08	-0.03	0.14	0.03	0.08	-0.10	0.01	0.11	0.09	0.00	0.19	-0.06	0.09					
MBA degree	0.10	0.30	0.02	0.23	0.10	-0.08	0.20	-0.07	-0.02	0.07	0.06	0.00	0.03	0.00	0.04	-0.05	0.06	-0.09	-0.02	0.02	-0.04	-0.04	-0.08	0.00	-0.01	0.13	0.00	-0.01	0.08				
Financial experience	1.02	3.11	-0.10	0.23	0.22	-0.12	0.28	-0.04	-0.02	-0.12	-0.05	-0.16	-0.02	-0.03	-0.02	-0.04	0.00	-0.01	-0.09	-0.11	0.02	0.03	0.03	-0.08	-0.03	0.06	-0.14	0.04	-0.07	-0.05			
Founding team size	1.68	0.93	0.13	-0.05	0.01	-0.07	0.01	-0.01	-0.07	0.06	-0.14	-0.03	-0.14	0.01	0.15	-0.05	0.31	-0.27	-0.02	0.01	0.09	-0.05	0.01	0.05	0.14	0.14	0.02	0.05	0.04	0.17	0.02		
Co-founder specialization	0.15	0.36	0.16	-0.06	-0.09	-0.08	-0.03	0.13	0.01	0.03	0.00	0.01	-0.01	-0.04	0.16	-0.04	0.31	-0.16	-0.04	0.11	0.15	-0.06	0.07	0.03	0.04	0.04	-0.04	-0.08	0.11	0.07	-0.12	0.49	

[a] Log-transformed

Table 2. Study 1—Descriptive Assessment of the Hypotheses with Observational Data

Hypothesis	Founder Type	Funds Raised at IPO (IPO Proceeds in Million £)	N
H1a	Industry specialist	10.38	91
	Industry generalist	6.18	84
H1b	Functional specialist	10.29	55
	Functional generalist	7.49	120
H2	Full specialist	11.67	42
	Partial specialist	8.55	62
	Full generalist	6.25	71

Moderating Effect of VC-Retained Equity			
		Corr [VC-retained equity; Funds raised at IPO (IPO proceeds) [a]]	Average VC equity
H3	Full specialist	0.01	16.45%
	Partial specialist	0.23	8.77%
	Full generalist	0.41	4.66%

[a] Log-transformed

Table 3. Study 1—Association of the Lead Founder's Specialization with the Funds Raised at IPO

Dependent Variables	IPO Proceeds [a]					
Industry generalist	-0.432*		-0.341+			
	(0.195)		(0.185)			
Functional generalist		-0.524*	-0.439*			
		(0.232)	(0.220)			
Partial specialist				-0.289	-0.379	
				(0.272)	(0.304)	
Full generalist				-0.747*	-0.978**	
				(0.295)	(0.348)	
Partial specialist * VC-retained equity					0.467	
					(1.489)	
Full generalist * VC-retained equity					2.967*	
					(1.274)	
VC-retained equity					-1.099	
					(1.218)	
Performance of the market	-0.002	-0.002	-0.005	-0.004	-0.003	-0.003
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Total number of IPOs [a]	0.229*	0.209+	0.225*	0.210*	0.210*	0.212*
	(0.111)	(0.106)	(0.108)	(0.104)	(0.104)	(0.105)
Firm age [a]	-0.444**	-0.416**	-0.453**	-0.430**	-0.430**	-0.432**
	(0.163)	(0.157)	(0.158)	(0.153)	(0.153)	(0.141)
Number of risk factors	0.052***	0.054***	0.049***	0.051***	0.051***	0.047***
	(0.012)	(0.011)	(0.012)	(0.012)	(0.011)	(0.011)
High-technology industries	0.071	0.071	0.042	0.046	0.052	0.105
	(0.188)	(0.191)	(0.179)	(0.183)	(0.185)	(0.231)
B2B ventures	-0.315	-0.381	-0.302	-0.356	-0.351	-0.352
	(0.259)	(0.263)	(0.270)	(0.271)	(0.262)	(0.273)
The size of the venture [a]	0.227***	0.217***	0.234***	0225***	0.223***	0.221***

	(0.044)	(0.049)	(0.042)	(0.046)	(0.046)	(0.047)
Revenue growth	0.003+	0.004*	0.004+	0.004*	0.004*	0.004+
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Top management team size	0.235*	0.235*	0.242*	0.241**	0.240**	0.258**
	(0.096)	(0.089)	(0.093)	(0.089)	(0.088)	(0.091)
Board independence	-0.044	-0.002	-0.219	-0.157	-0.092	-0.105
	(0.590)	(0.596)	(0.594)	(0.588)	(0.587)	(0.567)
VC board membership	-0.546	-0.449	-0.330	-0.288	-0.262	-0.659
	(0.837)	(0.812)	(0.801)	(0.784)	(0.816)	(1.053)
Length of the lockup period	0.021	0.014	0.016	0.012	0.010	0.007
	(0.035)	(0.035)	(0.034)	(0.034)	(0.034)	(0.034)
Underwriter's prestige	0.752***	0.710***	0.759***	0.724***	0.714***	0.667***
	(0.144)	(0.156)	(0.149)	(0.155)	(0.159)	(0.150)
VC's prestige	0.271	0.406	0.228	0.341	0.397	0.317
	(0.283)	(0.260)	(0.254)	(0.254)	(0.266)	(0.307)
Length of VC investment	0.050	0.033	0.049	0.036	0.033	0.045
	(0.053)	(0.052)	(0.052)	(0.051)	(0.052)	(0.061)
equity retained by other institutional investors	0.250	0.166	0.241	0.176	0.151	0.147
	(0.557)	(0.547)	(0.570)	(0.556)	(0.570)	(0.549)
Founder's retained equity	-1.293**	-1.294**	-1.371**	-1.359**	-1.336**	-1.425**
	(0.477)	(0.460)	(0.445)	(0.435)	(0.438)	(0.511)
Founder CEO	0.174	0.272	0.377+	0.421*	0.387+	0.320
	(0.180)	(0.175)	(0.202)	(0.200)	(0.208)	(0.213)
Founder's age	0.009	0.006	0.003	0.002	0.002	-0.000
	(0.011)	(0.010)	(0.010)	(0.009)	(0.009)	(0.010)
Founder's external board positions	-0.007	-0.004	-0.009	-0.007	-0.006	-0.008
	(0.007)	(0.008)	(0.007)	(0.008)	(0.007)	(0.007)
Founder's media status[a]	0.236**	0.207**	0.245***	0.221**	0.216**	0.217**
	(0.074)	(0.068)	(0.074)	(0.067)	(0.069)	(0.065)
MBA degree	-0.050	0.120	-0.001	0.125	0.148	0.170
	(0.197)	(0.207)	(0.185)	(0.199)	(0.201)	(0.202)
Financial experience	-0.015	-0.001	-0.003	0.006	0.008	0.006
	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.022)
Founding team size	-0.001	-0.023	-0.018	-0.032	-0.030	-0.029
	(0.109)	(0.113)	(0.102)	(0.107)	(0.111)	(0.113)
Co-founder specialization	-0.136	-0.097	-0.202	-0.160	-0.132	-0.097
	(0.297)	(0.302)	(0.302)	(0.308)	(0.306)	(0.291)
Constant	10.256***	10.800***	10.931***	11.250***	11.193***	11.600***
	(1.237)	(1.225)	(1.209)	(1.221)	(1.221)	(1.239)
R^2	0.455	0.476	0.480	0.492	0.493	0.508

[a] Log-transformed, $+ p < .10$, $* p < .05$, $** p < .01$, $*** p < .001$

Table 4. Study 1—Association of the Lead Founder's Breadth of Experience (Index Measures) with the Funds Raised at IPO

Dependent Variables	IPO Proceeds [a]		
Industry generalist index	-1.110*	-0.014	-0.136
	(0.466)	(0.783)	(0.802)
Functional generalist index	-1.107+	-0.582	-0.648
	(0.577)	(0.625)	(0.652)
Industry generalist index * Functional generalist index		-3.414+	-4.094*
		(1.736)	(1.628)
Industry generalist index * Functional generalist index * VC-retained equity			10.976***
			(2.512)
VC retained equity			-0.884
			(0.584)
Controls		….............	
Constant	12.861***	12.760***	13.136***
	(0.905)	(0.827)	(0.995)
R^2	0.502	0.513	0.527
Sample size	135	135	135

[a] Log-transformed, + $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Study 2—Mean Comparisons across the Experimental Conditions

Hypothesis	Founder's Specialization	Funds Raised at IPO (Proportion of Investors' Available Funds)	N
H1a	Industry specialist	12.36%	83
	Industry generalist	8.85%	77
H1b	Functional specialist	12.54%	78
	Functional generalist	8.90%	82
H2	Full specialist	14.67%	39
	Industry specialist and functional generalist	10.32%	44
	Functional specialist and industry generalist	10.41%	39
	Full generalist	7.24%	38

Table 6. Study 2—Association of the Lead Founder's Specialization with the Funds Raised at IPO

Independent and Control Variables	Trust in the Founder	Funds Raised at IPO (Proportion of Investors' Available Funds)					
Industry generalist			-0.043*	-0.044*			
			(0.019)	(0.019)			
Functional generalist			-0.038+	-0.040*			
			(0.020)	(0.020)			
Industry specialist and functional generalist	-0.480**					-0.047	-0.038
	(0.186)					(0.031)	(0.031)
Functional specialist and industry generalist	-0.316+					-0.052	-0.046
	(0.190)					(0.034)	(0.034)
Full generalist	-0.551**					-0.084**	-0.074**
	(0.188)					(0.027)	(0.026)
Trust in the founder							0.019*
							(0.009)
Age of participants	-0.001	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
	(0.017)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Gender of participants (female)	-0.023	0.030	0.035+	0.029	0.035+	0.034+	0.034+
	(0.147)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Nascent entrepreneur	-0.191	-0.029	-0.033	-0.032	-0.037	-0.038	-0.035
	(0.177)	(0.031)	(0.030)	(0.030)	(0.029)	(0.028)	(0.028)
Constant	4.719***	0.146	0.161***	0.164***	0.181***	0.188***	0.099
	(0.430)	(0.044)	(0.046)	(0.050)	(0.053)	(0.056)	(0.065)
R^2	0.059	0.028	0.054	0.049	0.077	0.078	0.093

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 7. Study 3—Mean Comparisons across the Experimental Conditions

Hypothesis	Founder Specialization	Funds Raised at IPO (Proportion of Investors' Available Funds)	N
H1a	Industry specialist	26.36%	183
	Industry generalist	21.25%	167
H1b	Functional specialist	24.72%	174
	Functional generalist	23.13%	176
H2	Full specialist	26.85%	96
	Industry specialist and functional generalist	25.82%	87
	Functional specialist and industry generalist	22.10%	78
	Full generalist	20.51%	89

Table 8. Study 3—Association of the Lead Founder's Specialization with the Funds Raised at IPO

Independent and Control Variables	Funds Raised at IPO (Proportion of Investors' Available Funds)				
Industry generalist	-0.048*			-0.046+	
	(0.023)			(0.023)	
Functional generalist			-0.042+	-0.039+	
			(0.024)	(0.024)	
Industry specialist and functional generalist					-0.042
					(0.034)
Functional specialist and industry generalist					-0.049
					(0.034)
Full generalist					-0.085**
					(0.030)
Age of investors	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Gender of investors (female)	-0.028	-0.028	-0.023	-0.022	-0.023
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Nascent entrepreneur	0.160***	0.161***	0.166***	0.167***	0.167***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
Constant	0.326***	0.344***	0.342***	0.358***	0.359***
	(0.043)	(0.044)	(0.044)	(0.045)	(0.045)
R^2	0.187	0.197	0.194	0.203	0.203

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 9. Study 3—Bootstrapping Estimates of the Indirect Effect of the Lead Founder's Category Spanning on the Funds Raised at IPO

Indirect Effect	Coefficient	BootSE	95% CI (Bias Corrected)
Category spanning → Founder's consistency → Trust in the lead founder → Funds raised at IPO			
Industry specialist and functional generalist	-0.002	0.004	-0.010 to 0.005
Functional specialist and industry generalist	-0.006*	0.005	-0.020 to -0.0002
Full generalist	-0.006*	0.004	-0.018 to -0.0003
Category spanning → Founder's competence → Funds raised at IPO			
Industry specialist and functional generalist	0.002	0.005	-0.003 to 0.022
Functional specialist and industry generalist	0.006	0.008	-0.003 to 0.033
Full generalist	0.006	0.008	-0.003 to 0.030
Category spanning → Founder's consistency → Trust in the lead founder			
Industry specialist and functional generalist	-0.020	0.040	-0.131 to 0.045
Functional specialist and industry generalist	-0.067	0.048	-0.195 to 0.001
Full generalist	-0.066*	0.046	-0.191 to -0.001
Category spanning → Trust in the lead founder → Funds raised at IPO			
Industry specialist and functional generalist	-0.015	0.011	-0.038 to 0.006
Functional specialist and industry generalist	-0.022	0.012	-0.047 to 0.000
Full generalist	-0.020*	0.012	-0.050 to -0.0001

* $p < .05$

Endnotes

[1] The more general organizational research on social categories has concluded that context matters in determining whether specialists perform better than generalists. Recently, research has focused on context-related moderators (e.g., Almandoz and Tilcsik 2016; Pontikes 2012), which we elaborate on later.

[2] For example, Merluzzi and Phillips (2016) showed that graduating MBAs who are specialists in investment banking receive fewer job offers and less compensation than generalists. In the same vein, Custodio, Ferreira, and Matos (2013) showed that generalist CEOs receive higher compensation than specialist CEOs.

[3] Interestingly, a recent re-examination of this matter in the music industry identified a curvilinear relationship between category distance and audiences' responses. Namely, audiences appear to reward musicians who either specialize or combine distant music genres while penalizing musicians who attempt middle-distance combinations of genres (Younkin and Kashkooli, 2020).

[4] We also note a related literature on knowledge recombination and scientific outputs, which has identified some more specific moderators tightly linked to the context of science. For example, scientific fields with a slow pace of change favor generalist scientists, whereas fast-paced fields favor specialists (Teodoridis, Bikard and Vakili 2019). Moreover, the exact outcome variable matters; generalist scientists appear to have fewer scientific outputs but more impact in terms of citations (Leahey, Beckman and Stanko 2017).

[5] Although category studies have been conducted across a wide range of industries and for different types of categories, we note that they have largely focused on a single salient dimension for categorizing an entity. For example, movies have been categorized into genres (Hsu 2006), patents into technology classes (Wry and Lounsbury 2013), mutual funds into high and low risk (Lounsbury and Rao 2004), and wines according to the type of grape (Negro et al. 2010). Inspired by the work of Kacperczyk and Younkin (2017), we depart from this focus on a single category dimension given the recent recognition that audiences categorize many entities into multiple salient dimensions simultaneously (e.g., Gehman and Grimes 2017, Vergne and Wry 2014). For example, viewers can categorize actors and directors according to their genre (e.g., comedy, drama) and their medium (e.g., feature film, TV series, theater). In a similar vein, patrons can categorize restaurants according to both food and ambiance. Similarly, hiring committees can categorize scholars according to both their field and method. In such cases of dual (or multiple) salient category dimensions, it is interesting and important to know how the generalist penalty applies to each dimension separately and in conjunction.

[6] Connelly et al. (2018) distinguished two dimensions of trust—competency trust, or the belief one's partner has the skills to complete the focal task (Butler and Cantrell 1984), and integrity trust, or the belief that one's partner

will behave morally and will not purposely harm oneself (Mayer et al. 1995). Some parts of the finance literature have forfeited the concept of competence altogether, conceptualizing trust as solely a matter of integrity. For example, Duarte et al. (2012) defined the trustworthiness of borrowers as the willingness, not the ability, that a potential borrower will repay his or her loan provided he or she has the resources to do so. Further, Botazzi et al. (2016) defined trust as a subjective belief about the likelihood that a potential trading partner will act honestly. Integrity-based trust has also been found to matter much more than competence-based trust, being about 10 times more effective at reducing transaction costs (Connelly et al., 2018). In this study, to be consistent with the finance literature and to distinguish trust from competency concerns (a known mechanisms of the generalist penalty), we conceptualize trust as a matter of integrity.

[7] We note here that not all diversification seems problematic. For example, elite actors could benefit from consuming low-brow art (they look more "authentic") (Hahl et al. 2017), and corporate law firms might not be discounted if they diversify into family law (Phillips et al. 2013). Diversification is most problematic when the audience infers a conflict between the values of the producer's separate categories.

[8] We speculate that other types of contexts in which this relational element (and therefore the trust mechanism) is important include (1) labor markets in which recruited individuals need to be trusted (Galperin et al. 2020; Zuckerman et al., 2003); (2) business transactions, such as mergers and acquisitions, in which the two parties involved have to trust each other to achieve a productive relationship (Graebner, 2009); and (3) markets for goods or services in which the buyer needs the producer to consistently provide after-sales parts or services (e.g., machinery, real estate, education).

[9] For example, trust is theoretically distinct from commitment (Halh and Ha, 2020). Investors are not concerned whether a founder is solely committed to them at the time of IPO (as opposed to "serving other audiences"). Instead, there is suspicion that the founder might act inconsistently *in the future* based on evidence of category spanning in his or her past. In summary, we put forth a consistency and integrity argument instead of an argument of current commitment to a single versus multiple audiences.

[10] Consistent with the work of Filatotchev and Bishop (2002), we excluded re-admissions (608 firms), transfers to the AIM (220 firms), and investment trusts (265 firms; because they have particular governance characteristics, and it is difficult to identify their founders [Chahine et al. 2007]). We also excluded all IPOs that represented de-mergers, equity carve-outs, reverse takeovers, equity re-organizations (48 firms), investment and acquisition vehicles (233 firms), and firms incorporated more than 10 years before IPO (225 firms) to ensure that the organizations in our sample were still in the young entrepreneurial phase of their life cycles (Eisenhardt and Schoonhoven 1990, Talaulicar et al. 2005). Using information from company prospectuses, we eliminated firms that were subsidiaries (35 firms), were spinoffs (23 firms), or did not operate in the United Kingdom (20 firms) (Kroll et al. 2007).

[11] We note that managing director (MD) is a title that many British companies use for their most senior executive officers. Therefore, we consider the term MD as equivalent to CEO.

[12] We chose IPO proceeds over other popular outcomes in the finance literature, such as opening price, end-of-first-day price, or "underpricing" (the difference between the value of the shares at the offer price and the value at the end of the first day of trading) because founders are more concerned about the funds they raise (the proceeds) rather than the funds to be gained by early investors as the price rises (or drops) in the first day of trading (Brau and Fawcett 2006; Loughran and Ritter 2002).

[13] For example, in the following example of the IPO of Airbnb, we see that the offer price was adjusted based on the market expectations (the predicted appetite of investors).

"AirBnb sold 50 million shares at $68 each. The $68 price is above the $56 to $60 price range the company set earlier this week, and higher than prior expectations of $44 to $50."
https://www.syncbnb.com/blog/the-airbnb-ipo-was-a-huge-success-what-does-that-mean-for-you/

[14] Generally, a discreet dichotomous variable (generalist versus specialist) has at least three advantages over continuous index variables: First, a dichotomous classification is easier to code and is thus more accurate in contexts in which detailed information on each specific role is not readily available. Second, a dichotomous classification is more intuitive and easier to interpret. Third, data discretization is a logical and appealing option for many zeros (full specialists). Obviously, discretization has its own drawback—namely, the loss of information that occurs when a continuous variable is artificially and often arbitrarily categorized (Boulton and Williford 2018).

[15] The dichotomous coding included an implicit consideration of founders' duration in different roles. For example, if a founder had a long tenure in one role (e.g., 15 years as a CFO) and a very short tenure in another (e.g., three months in marketing), it is unlikely that the focal founder would mention the short-tenure job in his or her bio. Even if the founder did, our team of three coders would still categorize this founder as a specialist. Thus, the dichotomous coding was not purely mechanical but instead allowed for interpretation and judgment. While judgment comes with the drawback of subjectivity, having a team of three independent coders who could resolve ambiguous cases (about 3% of the sample) gave us confidence that our dichotomous codes were accurate and would match investors' perceptions.

[16] We note that when the lead founders were also CEOs, we coded them as specialists if they had a background in organizational leadership (administration). If they instead had a background in other functions (e.g., marketing, finance, or technical), we coded founder CEOs as generalists because leading a firm would be new to them. However, it could be argued that taking a leadership role after a career in a specific function is a logical career evolution for a CEO; therefore, we ran a robustness check classifying founder CEOs with a background in a single specialist function (15 cases) as specialists. This alternative coding did not change the direction nor the significance of the results. To confirm that investors would perceive the specialization of founders the same way we did, we presented 10% of the cases to an experienced investor (male, 44 years of age), who independently confirmed all our codes without exception.

[17] We also ran two more robustness checks: First, we used a continuous measure of the breadth of industry and functional experience (adopted from Jose, Nichols and Stevens 1986), for which a founder's breadth of industry/functional experience = 1-1/n, where n is the number of industry/functional categories the founder had experience in. Second, we re-created simple dichotomous variables (specialist versus generalist) based on setting the median value in the Herfindahl index as the cutoff point, in line with prior work (e.g., Custodio, Ferreira and Mattos 2013, Teodoridis 2018). The results of both these analyses closely match the main results. Overall, these tests increased our confidence that multiple alternative codes for the predictor variable (specialization) produce similar results.

[18] We also ran a robustness check with the top 100 funds coded as prestigious (see Krishnan and Masulis 2011), and the results remain substantively the same.

[19] Interestingly, there is no significant difference between the means of the two partial specialist conditions (10.32% versus 10.41%, $p = 0.97$). This simply means that partial specialists do better than full generalists irrespective of which one of the two dimensions (function or industry) they are a specialist in. In a broader sense, our hypotheses and results positioned the two categorical dimensions (industry and function) at the same level of importance rather than one at a superordinate level and one at a subordinate level (Younkin and Kashkooli, 2020), as in Kacperczyk and Younkin (2017).

[20] In further robustness checks, we explored another outcome variable—investment value—asking participants to name the exact amount of funds they would invest in the venture. The results are consistent with the main results.

[21] We note that Study 3 has a bigger sample size than Study 2, but the effects are slightly less pronounced although the experimental manipulation worked well. One possible explanation could be technical—namely, in Study 2 we did the manipulation test before measuring the dependent variable, but in Study 3, we did the manipulation afterward. Therefore, participants in Study 3 might have paid less attention to the founder's breadth of experience. An alternative explanation is that trainee investors might be more impressed or affected by the lead founder's background than more seasoned and experienced investors. We tested participant investment experience as a moderator for the main effects, but it did not prove significant. Hence, we concluded that less experience does not appear to artificially increase the size of the effects.

[22] Overall, we concluded that the effects we hypothesized are practically and theoretically important, for the following reasons: First, the effects are statistically significant and in the predicted direction, for most of the hypothesized relationships, in three different studies. Second, the size of the effects (indicated by means-comparisons) is also substantial, as we detail in the results section. Third, Prentice and Miller (1992) argued that results are important when they demonstrate that "an effect is so pervasive, that it holds even in the most inauspicious circumstances" (p.163). We find an increase in explanatory power (the R square) when we include our predictors. While the R2 increase of 3.71% might appear modest, our predictors enter the model over and above many controls and still move the needle. Finally, the effect sizes translate into substantial differences in the funds raised, which is of considerable importance to the founders and their businesses.

[23] Kacperczyk and Younkin (2017) specified an optimum combination of breadth of functional and industry experience that maximizes the probability of entry (generalist in function and specialist in industry). Instead, we observed that both combinations of partial specialization are better in terms of raising funds at IPO than being a full generalist. In other words, specialization in one dimension reduces the generalist penalty in the other dimension.

[24] Interestingly, entrepreneurs' category spanning appears to differ from that of employees in labor markets. In labor markets, there is evidence that specialist skills are beneficial at the beginning of an individual's career, whereas generalist skills and experience are valued more at later career stages (Custodio, Ferreira, and Matos 2013, Merluzzi and Phillips 2016, Zuckerman et al. 2003).

[25] We thank two anonymous reviewers and the editor for challenging us to think about some of these scope conditions.

[26] Using the FAME database, we managed to "match" about 60% of our IPO sample based on industry, size, and year but struggled to find accurate background data for these private firms' founders.