Give it Another Shot

Startup Experience and the Mobilization of Human Resources in New Ventures

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Abstract

Human resources can provide a competitive advantage to firms, but we still know little about how newly-founded ventures start mobilizing these resources. Given the central role of entrepreneurs' background in designing the strategy of new firms, we investigate whether and how startup experience, namely past performance as entrepreneurs, influences employee mobilization strategies in new ventures. Integrating behavioral theories of the firm with regulatory focus theory, we postulate that serial entrepreneurs who failed in the past are more likely to be prevention oriented and change their employee mobilization strategies towards a more targeted hiring approach in subsequent ventures. Using Danish register data, we compare the employee sourcing practices of serial entrepreneurs with their former practices as novice entrepreneurs, as well as with a control group of first-time entrepreneurs who engage in serial venturing later on. We find that entrepreneurs who have already failed (i.e. discontinued a former business) select their employees from fewer sources in the labor market. Our tests lend support for learning as a key mechanism driving these differences. Alternative mechanisms such as selection effects, stigma of failure, and demand-side constraints are not empirically supported.

Keywords: Failure, Hiring, New Ventures, Startup Experience, Human Capital

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1. Introduction

Scholars have been striving to understand why some firms succeed while others fail soon after entry. Startups are founded by individuals with varied experiences and in quite distinct conditions, which in turn make them differently able to mobilize the necessary resources to exploit business opportunities (Clough et al., 2019; Fern et al., 2012; Geroski et al., 2010; Honoré, 2020; Shepherd et al., 2020). Prior research has identified founders' entrepreneurial experience as one of the reasons why some firms perform better than others.[1] Indeed, extensive work suggests that serial entrepreneurs may outperform novice, first-time, founders (Delmar and Shane, 2006; Gompers et al., 2010; Parker, 2013; Rocha et al., 2015; Shaw and Sørensen, 2019) partly because startup experience improves the assessment and selection of entrepreneurial opportunities (Baron and Ensley 2006; Cassar, 2014; Gruber et al., 2008; Ucbasaran et al., 2009).

However, it remains unclear what entrepreneurs do differently as they accumulate experience. By simply examining the link between entrepreneurs' initial attributes at the founding phase and post-entry outcomes, previous studies leave the intervening processes as a black box. Founders' past experiences are likely to shape their strategic choices (Fern et al., 2012; Kotha and George, 2012) and to imprint the evolution of their teams (Lazar et al., 2020) and firms (DeSantola and Gulati, 2017; Leung et al., 2013). This paper therefore shifts the conversation from *whether* founders' experience affects performance to *how* it shapes specific strategies and, as a result, firm outcomes. We focus on hiring and study the different ways founders source human capital resources (HCR) (Ployhart et al., 2014) from the labor market to their firms depending on their prior experience as entrepreneurs.

[1] We use the terms "founder" and "entrepreneur" interchangeably throughout the paper to refer to those who establish their own business and actively participate in the development of the firm.

Hiring is a critical activity in most firms and may determine their survival and success (Phillips and Gully, 2015). Firms that are superior at selecting, developing, deploying and retaining HCR can often secure a competitive advantage (Hatch and Dyer, 2004; Hitt et al., 2011; Mackey and Barney, 2019). Human resources may be particularly relevant in young and small firms (Katz et al., 2000; Yli-Renko et al., 2001) given the paucity of other resources in the early stages of a business, and an emergent stream of research indeed confirms that a startup's success may strongly depend on its early employees (e.g., Agarwal et al., 2016; Rocha et al., 2018). Nevertheless, recent calls for research ask for a better understanding of the antecedents and consequences of team mobilization strategies (e.g., Knight et al., 2020; Lazar et al., 2020), since "*the phenomenon of entrepreneurship … cannot be understood without due attention to resource mobilization*" (Clough et al., 2019: 240).

Building on behavioral theories of the firm (Cyert and March, 1963; Greve, 2003, 2020) and regulatory focus theory (Higgins, 1997, 1998, 2002), we address those calls and investigate how differently experienced entrepreneurs source employees for their firms compared to novice founders. We focus on different search modes used in new ventures to mobilize HCR, namely the breadth and depth of external sources that entrepreneurs use when hiring their employees. We theorize that prior experience with failure will change how entrepreneurs mobilize employees in their subsequent ventures, in the sense that entrepreneurs who failed earlier will be more prevention oriented and engage in more targeted hiring tactics than others. The proposed mechanism behind this strategic reorientation is learning, which occurs when organizations and individuals revise routines and actions based on their past performance, especially after experiencing failure (Anand et al., 2016; Bingham and Davis, 2012; Lant et al., 1992; Ott et al., 2017).

In order to test our theory empirically, we use employer-employee linked data maintained by Statistics Denmark. We identify a sample of serial entrepreneurs and a

comparable control group of novice entrepreneurs who also engage in serial venturing later on to alleviate selection concerns (Chen, 2013; Rocha et al., 2015). In robustness checks, we compare the practices of the same founder in their first and subsequent ventures by estimating regressions with founder fixed effects. We consistently find that startup experience triggers changes in the way founders source their employees when there is a failure record. Serial founders who have failed in the past (i.e., discontinued prior ventures) tend to conduct narrower, more targeted, employee sourcing strategies that resemble "pipeline hiring" tactics (see Brymer et al., 2014, 2018), in line with a more prevention oriented regulatory focus (Higgins, 1997, 1998, 2002; Kuhn, 2015) and local problemistic search (Greve, 2003, 2020). In contrast, more successful entrepreneurs (i.e., those whose prior ventures have survived) hardly change their employee sourcing strategies from one business to another. If anything, these entrepreneurs seem to broaden their search and tap into a greater number of affiliations to hire their employees compared to first-time founders, but this behavior is likely explained by their unobservable characteristics rather than their accumulated experience. To disentangle the underlying mechanisms, we analyze how human capital sourcing relates to firm survival, employment growth, and employee retention. Ventures sourcing their HCRs more narrowly survive longer and suffer lower worker turnover over their lifecycle, which is suggestive of learning from failure (e.g., Bingham and Davis, 2012; Lant et al., 1992). We can safely rule out alternative mechanisms such as selection effects, supply-side responses, and demand-side constraints, for which we do not find any empirical support.

This paper contributes to several research streams and ongoing debates. First, by studying how founders' experience impacts key strategies in new ventures, we uncover some of the processes through which founders imprint their ventures and create heterogeneities in venture performance (e.g., DeSantola and Gulati, 2017). Second, given our focus on human capital resources, we address recent calls for more research on how team formation and

hiring strategies unfold in entrepreneurship (Agarwal, 2019; Clough et al. 2019; Lazar et al., 2020; Knight et al., 2020). Third, we contribute to the entrepreneurial failure and learning literatures (e.g., Chen et al., 2018; Lafuente et al., 2019; Shaw and Sørensen, 2019) by showing that prior experience triggers strategic changes through learning when accompanied with failure. Finally, our findings relate to recent work on how entrepreneurs effectively form strategies in uncertain settings (e.g., Ott et al., 2017; Ott and Eisenhardt, 2020) and offer implications for practice by suggesting that failure may provide entrepreneurs unique opportunities to learn, revise their strategies, and perform better in the future.

2. Theoretical Background

2.1. Mobilizing human capital resources in startups

The importance of human capital – or, more broadly, HCR (Ployhart et al., 2014) – as a source of competitive advantage for both established and new ventures has been the emphasis of several decades of research (Barney, 1991; Cooper et al., 1994; Hatch and Dyer, 2004; Mackey and Barney, 2019; Phillips and Gully, 2015). Firms that fail to attract, develop, and retain the right HCR may lose their competitive advantage, especially in knowledge-intensive contexts (Yli-Renko et al., 2001). Yet, hiring is a decision making process characterized by uncertainty and subject to costly mistakes (Kuhn, 2015; Leung, 2018). In young firms, these mistakes can be detrimental to their survival (Heneman et al., 2000; Leung, 2018). However, hiring strategies in startup firms remain surprisingly underexplored (Agarwal, 2019; Honoré and Ganco, 2020), although they trigger significant performance differences.

Mobilizing HCR can be particularly challenging for startup founders. Liabilities of newness and smallness leave new ventures with fewer resources than their established counterparts (Aldrich and Auster, 1986; Stinchcombe, 1965). In addition to this resource disadvantage relative to large incumbent firms (e.g., Burton et al., 2018; Sauermann, 2018), new ventures lack legitimacy and formal human resource management (HRM) systems

(Barber et al., 1999; Baron et al., 2001; Cardon and Stevens, 2004; van Werven, 2015; Williamson, 2000), which exacerbate the challenge of searching for and attracting the right employees at the right time. Besides, human capital is embedded in individuals with agency, leaving founders unsure about the strategic value of prospective candidates, where to source and how to poach them without facing retaliation from rivals (Bublitz et al., 2017; Campbell et al., 2017).

Supply-side constraints may also contribute to narrow the pool of individuals potentially interested in working for a startup. Assessing a new venture potential is hard since startups operate under high uncertainty, limited market distinctiveness, and short track records (Leung et al., 2013; Moser et al., 2017). In addition, on average, small startups pay lower wages (Burton et al., 2018) and have a greater exit rate than larger established firms (Deutsch and Ross, 2003). These conditions may only appeal to a limited number of candidates, such as those who tolerate risk, enjoy independence and responsibility (Roach and Sauermann, 2015; Sauermann, 2018).

Given the pressure to obtain a human capital-based competitive advantage in face of those constraints, entrepreneurs often use hiring shortcuts and combine interpersonal-attraction and resource-seeking goals (Lazar et al., 2020), searching rather narrowly in their personal network or those of trusted ones (Aldrich and Kim, 2007), or returning to their former employers to persuade colleagues to leave and join them (Agarwal et al., 2016; Rocha et al., 2018). This targeted sourcing of employees, also known as “pipeline hiring” (Brymer et al., 2014), has pros and cons. On the one hand, targeted hiring may seem counterproductive to the goal of identifying the best matches by shrinking the pool of employees to few pipelines (Brymer et al., 2018). Instead, hiring from a broader network of labor market affiliations may help firms achieve unique resource combinations and harder-to-imitate capabilities (Yli-Renko et al., 2001). It is also unlikely that a single recruiting source is the

best for all vacancies that need to be filled by a firm (Phillips and Gully, 2015), not to mention the risks of repeatedly poaching employees from specific firms (Campbell et al., 2007). On the other hand, openness to external knowledge sources, either for hiring or other strategic purposes (e.g., Love et al., 2014), whether through search or prior connections, requires interactions and information processing that are rather costly to young and small firms (Cardon and Stevens, 2004; Greer et al., 2016). Targeted sourcing strategies mitigate search costs as well as several labor market imperfections such as information asymmetries (Brymer et al., 2014, 2018). Furthermore, hiring firms can use the knowledge obtained in such targeted sourcing to ascertain whether individuals fit with the organization, job, and coworkers. Finally, the same firms can potentially acquire new knowledge from their source competitors through labor mobility (Agarwal et al., 2016; Campbell et al., 2012, 2017; Parrotta and Pozzoli, 2012) or establish connections to them (Brymer et al., 2018).

In sum, firms – including new ventures – often face a dilemma when mobilizing HCR. A more targeted sourcing might be a natural practice for firms to deal with information asymmetries and resource constraints, especially in contexts of talent scarcity such as knowledge-intensive industries (Brymer et al., 2014). Yet firms may choose to hire from multiple sources simultaneously to optimize their combined strengths (Phillips and Gully, 2015; Brymer et al., 2018), mitigate the costs of labor market poaching (Combes and Duranton, 2006; Pe'er and Keil, 2013), and minimize the uncertainty and risks of relying on one or few sources of human capital (Bidwell and Keller, 2014; Campbell et al., 2017). A wider or more targeted approach to hiring can thus have lasting implications for the HCR and capabilities in a firm, and ultimately its performance.

Understanding how serial and novice entrepreneurs differently source their HCR can provide insights about the mobilization of key resources in new ventures. Founders are the early stage "architects" of their ventures and tend to design them based on their own

characteristics, competencies, social relationships, and prior experience (Baron et al., 1996, 1999; Fern et al., 2012). We next elaborate on the role of founders' startup experience in HCR mobilization, with particular focus on their experience with failure.

2.2. The role of prior experience with failure

Founders' prior experiences – either as entrepreneurs or as employees in other organizations, in the same or different industry as their current venture – generate differences in the knowledge stock they use in decision making. Startup experience in particular allows the development of strong cognitive frames that improve the evaluation and selection of entrepreneurial opportunities and the formulation of more sophisticated judgements (Baron and Ensley 2006; Cassar, 2014; Gruber et al., 2008; Honoré, 2020; Ucbasaran et al., 2009; Shepherd et al., 2020). Prior research has found that serial entrepreneurs often outperform novice founders (Delmar and Shane, 2006; Gompers et al., 2010; Parker, 2013) partly due to learning by doing (Rocha et al., 2015; Shaw and Sørensen, 2019), but it has been relatively more silent on how exactly such learning materializes. As entrepreneurs launch consecutive firms, they may accumulate general experience of steering a business as well as specific expertise in the tactical aspects of day-to-day activities required to start and run a firm. Experience can enhance decision making for those tasks that are well defined, repetitive, and whose feedback in provided in a timely manner (Cassar, 2014). Hiring, firing, and managing employees are one of those tasks (Rerup and Feldman, 2011), especially in knowledge-based ventures relying on human capital to build and sustain a competitive advantage.

We propose that founders' startup experience will shape their hiring strategies in subsequent ventures. New venture strategy involves, among other things, resource orchestration through investments in human capital, so founders that are able to leverage prior experiences may have an advantage and be perceived as more legitimate by their various stakeholders, including employees (Shepherd et al., 2020). Besides, hiring reflects a

revision of conditional probabilities and an update of beliefs based on an employer's experience (Leung, 2018). On the one hand, experience may endow founders with updated data about which sources, networks and ties are more trustworthy and effective (Kotha and George, 2012; Williamson, 2000), and make them return to those more often when mobilizing new HCR (Brymer et al., 2014, 2018; Leung, 2018). On the other hand, prior experience may open access to new sources of talent and alleviate employees' reluctance to join by providing signals about the firm quality, founders' commitment, legitimacy, and ability (Bublitz et al., 2017; Moser et al., 2017; Honoré and Ganco, 2020). Whether entrepreneurs will become more or less likely to engage in narrow search and targeted hiring with experience remains unclear, as it may strongly depend on their past performance.

Behavioural theories of the firm (BTOF) postulate that organizations and their members adapt strategies based on an evaluation of their prior outcomes (Argote and Greve, 2007; Cyert and March, 1963; Greve, 2003, 2020). Past performance provides feedback on the relative effectiveness of certain strategies or routines, and this input may trigger different search strategies (Baum and Dahlin, 2007). BTOF and learning theories suggest that experience with failure is more likely to stimulate a reexamination of current strategies and promote exploration of new strategies, whereas success inhibits change and instills confidence on the effectiveness of prior actions (Denrell and March, 2001; Greve, 2020; Leung, 2018). Scholars have validated this finding in various settings – e.g., product innovation (Anand et al., 2016) and the launch of orbital vehicles (Madsen and Desai, 2010) – and present learning as a key mechanism through which organizations and individuals modify their actions on the basis of an evaluation of their experiences, especially after failure (e.g., Bingham and Davis, 2012; Lant et al., 1992; Rerup and Feldman, 2011).

For entrepreneurs, failure can also be used as a source of feedback about individual performance from which they can update their knowledge about how to manage a business

effectively and revise their subsequent decisions (Shepherd, 2003; Shepherd et al., 2011). However, learning from startup experience is difficult and may face several impediments. First, if tasks and contexts are very different across ventures, entrepreneurs may have limited ability to transfer knowledge and obtain timely and regular feedback on their strategies (Cassar, 2014; Toft-Keller et al., 2014). Second, performance is difficult to judge in settings of high uncertainty (Ott et al., 2017) and rare strategic decisions (Zollo, 2009). Perceived success can thus be a noisy signal of the effectiveness of prior actions (Kim et al., 2009) and different forms of myopia may arise even in the event of failure (Levinthal and March, 1993). Third, individuals' cognitive biases, such as optimism and overconfidence, can shape their reactions to their own experience and results (Amore et al., 2020; Schumacher et al., 2020). Failed entrepreneurs may attribute their outcomes to internal causes such as their planning style (Yamakawa et al., 2015), or blame the environment instead (e.g., the industry – Eggers and Song, 2015). Due to this attribution bias, the latter are less likely to change aspects of their previous businesses that would be attributable to their leadership and own choices.

Entrepreneurs may therefore learn from prior experiences and change subsequent strategies depending on prior outcomes and on how they allocate their attention when processing performance feedback. We use the regulatory focus theory (RFT) lens (Higgins, 1997, 1998, 2002) to understand *how* these changes materialize. RFT refers to a person's self-regulatory orientation towards future self-states: promotion versus prevention regulatory focus. Individuals operating under a promotion orientation are more motivated to grow, achieve and approach desirable outcomes than prevention-focused individuals, who rather emphasize safety and prefer to avoid undesirable outcomes. Moreover, people who make choices for themselves tend to experience choice overload (i.e., less satisfaction in choosing among many options) and exhibit a stronger prevention orientation, whereas those who make

choices for others tend to be promotion-focused and enjoy having many alternatives to choose from (Polman, 2012).

Entrepreneurs are likely to view each new hire as a risky decision with large impact in their own firms (Cardon and Stevens, 2004, Greer et al., 2016), so we expect them to use a prevention regulatory focus when hiring. This approach can be reflected in their targeted sourcing strategies, as pipeline hiring is less burdensome and costly than broader human capital sourcing (Brymer et al., 2014). Furthermore, we expect this effect to be strengthened in case of past failure. Performance below aspirations tends to trigger negative emotional responses among individuals (Shepherd, 2003; Shepherd et al., 2011), more specialized efforts (Greve, 2020) and problemistic search characterized by a more local locus (Cyert and March, 1963; Anand et al., 2016; Posen et al., 2018).

In sum, first we expect that a failed startup experience will be more likely to trigger change in HCR sourcing strategies than more successful entrepreneurial experiences. Second, as entrepreneurs may become more prevention-focused after experiencing failure, we expect a more targeted approach to hiring (i.e., narrower sourcing of new employees) by serial entrepreneurs who have failed in the past compared to both their novice counterparts and those with more successful experiences. The proposed mechanism driving these effects is learning from failure. Learning occurs as organizations and individuals change their subsequent behavior in response to prior performance outcomes, which result in a subsequent performance improvement (Baum and Dahlin, 2007; Bingham and Davis, 2012; Madsen and Desai, 2010). We will investigate the validity of this mechanism by analyzing how founders' startup experience and their HCR sourcing strategies affect key metrics of success in the context of entrepreneurial ventures, namely firm survival, growth, and worker retention. Alternative explanations will also be discussed and tested in post-hoc analyses.

3. Data and Methods

3.1. Data and sample

We use employer-employee linked data maintained by Statistics Denmark to test our theory. Through Entrepreneurship Database we identify all firms founded in Denmark since 2001, as well as their respective (main) founder. We combine these data with IDA, the Integrated Database for Labor Market Research, to gather more detailed information on each firm and their respective founder and employees. This way we can track founders and employees back and forth in time, and observe several characteristics of their jobs (e.g., occupation, tenure, wages) and employers (e.g., firm size, industry, location), besides their demographic details.

Our sample focuses on new ventures established between 2003 and 2008. As the Danish classification of occupations suffered significant changes in 2003, we track startups from this year onwards to have standardized listings of job descriptions and accurate identification of full-time founders. Additionally, since we have data until 2012, we include ventures founded up to 2008 to be able to track at least their first five years of activity (if they survive).[2] We restrict the analysis to firms in which HCR are expected to be particularly relevant and impactful, namely startups in manufacturing industries and knowledge-intensive services (e.g., programming and technology consulting, legal and accounting services, financial and communication services). We focus on startups with personnel in a physical workplace and exclude both self-employed individuals and independent workers. Finally, we make sure that the founder has an active role in the firm and that this is their main occupation, in order to exclude startups whose founder has no influence in the daily activities of the venture. These criteria lead us to an initial sample of 12,531 startups.

[2] In addition, this time window gives us a reasonable chance to observe the re-entry of first-time founders, since the longer the time between two businesses, the lower the propensity to try again (see Rocha et al., 2015).

We track the history of each founder to identify whether they were ever entrepreneurs before (i.e., founders of any other firm in the Entrepreneurship Database prior to 2003 or employers in any new firm listed in IDA), as well as the status of any business founded earlier (discontinued or not). Likewise, we trace each founder's future career to identify episodes of serial venturing (i.e., re-entry in entrepreneurship). Tracking founders' careers back and forth allows to identify the following three groups: a) novice entrepreneurs who founded a firm for the first time (between 2003 and 2008) and who never engage in serial venturing until 2012; b) novice entrepreneurs who founded their first venture between 2003 and 2008, and who will become serial entrepreneurs in the future (between 2009 and 2012); c) serial entrepreneurs who have already been founders of another firm before establishing the current venture. The great majority (nearly 80%) corresponds to founders in the first group, which we label "one-shot entrepreneurs". We name the second group of founders "novice future restarters". While we focus on their first business (around 1,200 firms), we know when they open a second business (within the period 2009-2012). The third group of "serial entrepreneurs" includes about 1,300 startups established by founders who had, at least, one founding experience before the current venture. About 80% of the startups operate in knowledge-intensive services (KIS) and the remaining 20% in manufacturing industries. [3]

We want to assess the effect of founder's startup experience in HCR sourcing. While this suggests a comparison between serial and novice entrepreneurs, prior research has demonstrated that these two groups may differ in their unobservable characteristics. For example, individuals engaging in serial venturing may be a positive selection of all active business owners, having higher ability (Chen, 2013; Rocha et al., 2015) or stronger entrepreneurial self-efficacy (Cassar, 2014; Shepherd, 2003). This self-selection bias

[3] Within KIS, legal and accounting services, followed by programming and digital consulting, have the highest representation (30% and 17% of the sample, respectively). Financial services, and publishing and telecommunications, account for about 4% of the sample each. The remaining sample includes various other KIS in the Eurostat classification (e.g., architectural, engineering, advertising, design, and educational services).

complicates comparisons between serial and novice entrepreneurs since any differences we would find between them could be (at least partially) explained by differences in their unobserved traits (selection effects) – see also Anand et al. (20016) and Eesley and Roberts (2012) – rather than startup experience (treatment effects). Within the broad group of novice founders, "novice future restarters" are more comparable to serial entrepreneurs in the unobservable characteristics that correlate with serial venturing, thus representing a more suitable control group to study the impact of entrepreneurial experience on hiring practices. We therefore focus on these two groups of founders in our main analysis. In the robustness checks section, we will compare serial entrepreneurs' first and second ventures, which keeps founders' unobserved attributes constant and further reduce selection concerns.

3.2. Variables and methods

Dependent variables

We use two variables to measure new ventures' breadth and depth of *human capital sourcing*, respectively: the *number* and *concentration of hiring sources*. Hiring sources refer to the employment affiliation of each new hire right before joining the focal venture. The first is a count variable that measures the number of different organizations where startups hire their employees from. The second variable measures how concentrated a firm's HCR sourcing is. It follows the same logic as the Herfindahl-Hirschman (HH) index typically used to measure firm concentration within an industry and is computed as follows:

$$\textit{Concentration of Hiring Sources} = \sum_{i=1}^{N} s_{it}^2, \quad (1)$$

where s_i is the share of employees coming from firm i and N is the total number of hiring sources used by the firm in year t. Values closer to one mean narrower, more targeted, HCR sourcing and resembles pipeline hiring, the phenomenon of repeatedly or disproportionately hiring employees from a limited number of organizations (Brymer et al., 2014).

Independent variables

Our key independent variable of interest is founder's entrepreneurial experience. We first distinguish between serial and novice entrepreneurs through a dummy variable (*Serial entrepreneur*). We then account for the outcomes of prior ventures to test whether an experience with failure triggers different hiring practices than relatively more successful experiences. We define failure as business discontinuance by the time of a founder's reentry. This may include both voluntary and involuntary business terminations (e.g., He et al., 2018). In post-hoc analyses, we delve into different types of business discontinuance observed in our sample, which may be differently perceived as failure or give different opportunities for learning. Finally, if the firm previously established by a serial entrepreneur is still active by the time the subsequent venture is founded, we classify it as a successful (or non-failed) experience.[4] We distinguish between these two types of entrepreneurial experience with two indicator variables: *SE_after closure* and *SE_no closure yet*.

Control variables

All specifications control for several variables at the founder and firm level, which may correlate with both entrepreneurial experience and hiring practices. Omitting them could bias the estimated coefficients of interest and lead to confounding explanations. At the founder level, we control for key demographic characteristics that correlate with accumulated experience and may also shape entrepreneurial strategies, namely gender (*Male* dummy variable), *Age*, whether the founder is *Married* and has *Danish nationality*, and the *Number of children* (*italics* added for variable names). We also control for *Parental Entrepreneurship* (i.e., having a mother and/or father listed as self-employed or employer in another firm),

[4] We check whether the disappearance of a firm ID is caused by its discontinuance or a transfer of ownership (e.g., acquisition by another firm). Only the former is classified as failure in our study. Excluding the latter (less than 10%) from the sample of successful serial entrepreneurs does not significantly change our results.

since prior research suggests that entrepreneurial intentions are strongly transferred across generations, even though knowledge transfer might be rather limited (Lindquist et al., 2015). We add founder's general and specific human capital through three variables: years of *Work Experience* as a wage earner, a dummy variable indicating whether the founder has completed *University Education*, and another variable identifying founding experience in the *Same 3-digit Industry* of the current firm. Finally, we control for unemployment experience prior to founding the current firm (*Unemployment at Startup*) and the *Personal Income at Startup* (in log), which may shape future hiring practices by capturing necessity motivations and (the lack of) financial resources.

At the firm level, we control for *Firm Size*, since our dependent variables are expected to be strongly correlated with the number of employees in the firm (measured in log to account for skewness in the variable). Employee sourcing strategies may also vary over firm lifecycle, so dummy variables for firm age are included in all estimations. We add year fixed effects to control for macroeconomic conditions common to all ventures and industry (2-digit) fixed effects to capture idiosyncratic industry shocks. We also account for the firm's workforce composition by considering employees' prior situation in the labor market, namely the share of new hires who were unemployed or studying (and thus out of the labor market) right before joining (*Previously Unemployed Hired* and *Previously Studying Hires*). Besides, we include the share of employees sourced from the last work affiliation of the founder and the proportion of hires of different nationality than the founder's (*Hires sharing work affiliation* and *Different nationality hires*). All these aspects of the workforce may correlate with founders' startup experience and network, and therefore shape how they search for and select HCR.

A last but not least important control variable is *Public Expenditures with Job Centers per Adult*, measured in log of 1000 Danish kroner at the municipality level. In 2007, the

Danish government implemented an extensive structural reform that changed the division of labor between the state, the regions, and municipalities, after which a job center was established in every municipality. By then, the municipalities started running the job centers jointly with the government, replacing the former Public Employment Service system. This introduced variation in public support with employment services for firms founded in different times and locations, which could have also affected their sourcing of HCR.

Finally, all estimations for the concentration of hiring sources further control for the total number of hiring sources used by the firm. This allows a clearer analysis of how targeted (or dispersed) employee sourcing evolves with startup experience, keeping the actual number of hiring sources used constant.

Methods

Given the discrete and non-negative integer nature of a firm's total number of hiring sources, we use count models with clustered standard errors at the firm level to estimate the relationship between entrepreneurial experience and the number of hiring sources. Since our dependent variable exhibits overdispersion (i.e., its variance largely exceeds the mean), we use Negative Binomial models, which fit the data better than an alternative Poisson regression. Linear regression models are then used to estimate the effects of interest on firms' concentration of hiring sources. All estimations compare serial entrepreneurs with novice future restarters, who are more likely to be similar in terms of entrepreneurial ability and self-efficacy. In a robustness check, we follow serial entrepreneurs' hiring patterns in their first and second business, using panel data models with founder fixed effects.

3.3. Descriptive statistics

We first compare "novice future restarters" with serial entrepreneurs to assess their suitability as a control group in terms of their demographic and family characteristics, work and

unemployment experience, education, initial income, and startup size. For reference, we provide the same comparison between serial and "one-shot" entrepreneurs (see Table 1).

We find significant differences between serial and one-shot novice entrepreneurs (columns I and II) in all of the variables considered, except total work experience, parental entrepreneurship, and marital status. Future restarters (column III) are still significantly different from serial entrepreneurs but these differences vanish when we compare them with serial entrepreneurs by the time of their first venture (column IV). Novice future restarters may therefore constitute a more suitable control group, being supposedly more similar also in unobserved characteristics that often correlate with serial venturing (e.g., entrepreneurial ability and self-efficacy). Nevertheless, we will later test whether any "pre-treatment" differences exist in their employee sourcing patterns by comparing the first venture of serial entrepreneurs with that of future restarters. This approach assures that any differences found between serial and novice entrepreneurs can be safely attributed to startup experience (treatment effects) rather than unobserved characteristics (i.e., selection effects).

*** Table 1 here ***

Table 2 provides some initial insights on employee sourcing depending on founder's experience. First, we observe that serial entrepreneurs change both the breadth and the depth of employee sourcing, but differently depending on the outcomes of their previous firms. Those who have already closed down their first business seem to narrow down their sourcing both by reducing the number of recruitment sources and by concentrating their sourcing. This suggests a more targeted search for HCR among serial entrepreneurs who have discontinued a business earlier, in line with our expectations. In contrast, serial entrepreneurs who did not experience failure – as we define it – seem to search and recruit more broadly. These patterns are also visible in Figure 1, where we illustrate the average HCR sourcing practices of each group of founders over time. As expected, firms source their employees quite narrowly in

early stages and tend to increase the variety of hiring sources as they age. However, differences emerge between groups and seem to persist over time. We next test whether these unconditional differences remain significant once we control for a variety of characteristics in which founders and their firms differ.

*** Table 2 and Figure 1 here ***

4. Results

4.1. Startup experience and HCR sourcing

Table 3 reports the empirical results on the relationship between a founder's startup experience and HCR sourcing in new ventures. The first two columns report Negative Binomial models for the breadth of employee sourcing, i.e. the number of different affiliations new hires come from. The last two columns are linear models for the depth (i.e. concentration) of employee sourcing.

Controlling for all the founder and firm characteristics described earlier, model 1 indicates no significant differences between serial and novice entrepreneurs in the total number of hiring sources they tap into when mobilizing their HCR. However, when we take into account the outcome of previous ventures founded by serial entrepreneurs as a proxy for the feedback they obtained on their entrepreneurial performance (model 2), we find that those with failure experience reduce by about 10%, whereas those with a relatively more successful record increase by 15% the pool of affiliations they recruit their employees from, relative to comparable first-time founders. Besides being individually significant, the two coefficients are significantly different from each other according to a Wald test. The last two columns further confirm the expectation that serial entrepreneurs – particularly those who have discontinued their former business – exhibit a more targeted hiring than other founders. Their HCR sourcing concentration index is 8% higher than the sample mean.

These first results indicate a more targeted approach to hiring among founders with failure experience, as theoretically anticipated. This finding is not driven by them hiring fewer employees than others, nor attracting more individuals who were studying or unemployed before joining, or with whom they have work affiliations in common, since all these differences are controlled for. These differences are also unlikely to be explained by some unobserved factors that make experienced entrepreneurs search for and mobilize new hires systematically differently, since we find no significant pre-trends when comparing their sourcing patterns in the first venture with those of the control group (Table 4). We test these main results with a number of robustness tests before we proceed with the analysis of the underlying mechanisms.

*** Tables 3 and 4 here ***

4.2. Robustness checks

We first make sure that our results are not driven by our methodological choices or any systematic unbalance between serial and novice entrepreneurs regarding their observed characteristics. We repeat our main analysis using propensity score matching (PSM) to estimate the average treatment effect of startup experience and the heterogeneous effects of having or not discontinued a business in the past on both outcome variables. Results in Appendix Table A.1 confirm our findings: relatively more successful serial entrepreneurs tend to broaden their search and tap into a greater number of employment affiliations to hire their HCR, while those who discontinued a business in the past seem to become more targeted in their hiring and repeatedly source employees from only a few pipelines.

Table A.2 summarizes several additional checks confirming that our results are robust to different sampling and methodological choices. Panel a) restricts the analysis to the first five years of firms' lifecycle to assure that we capture early stage hiring patterns. The results are consistent with and even more significant than those obtained from the full sample.

Panel b) uses "novice one-shot entrepreneurs" as an alternative counterfactual. Some of these founders may have never launched a second business because they were successful enough in their first attempt. As this group may be more diverse than our preferred control group in their unobserved characteristics, we use them as a benchmark only in this robustness check. Nevertheless, our results remain qualitatively unchanged.

Panel c) acknowledges that our dependent variables are only observed when firms hire new personnel. This could raise concerns with sample selection bias in case some firms hire less often or take longer to hire depending on founders' experience. We still find that serial entrepreneurs who have discontinued their business are more targeted in their hiring after correcting for sample selection bias with a Heckman two-stage model.[5]

Finally, in panel d) we use serial entrepreneurs' first business as a counterfactual, which allows to include founder fixed effects. This way we examine within-founder variation and still find that entrepreneurs who failed earlier tend to change their HCR sourcing strategies by conducting more targeted hiring in their subsequent venture, as theorized. In contrast, those with no failure record do not seem to significantly change their employee sourcing patterns from one venture to another. This suggests that the differences we observed earlier in Table 3 could be explained by unobservable traits of these subset of entrepreneurs (i.e. selection effects rather than the treatment effect of accumulated experience). To investigate this in greater depth, we have implemented additional estimations to test how differently serial entrepreneurs sourced their employees over time compared to what they had done in their previous business, depending on their experience with failure. Figures 2a-2d illustrate the main findings from these tests. In line with the results of panel d) of Table A.2, entrepreneurs with no failure experience do not exhibit significant changes in their sourcing

[5] As exclusion restrictions, we use founder's background characteristics that predict hiring but not the breadth nor depth of HCR sourcing (marital status, number of children, parental entrepreneurship and founder income at entry), together with the share of startups of the same age in the same industry and year having personnel.

patterns from one business to another (see Figures 2a and 2c). In contrast, entrepreneurs who discontinued their previous firm tend to use fewer hiring sources and hire more intensively from those organizations (Figures 2b and 2d) than they had done in the past.

*** Figures 2a-2d here ***

Overall, we find general support for our expectations. First, we find a more targeted approach to HCR sourcing among serial failed entrepreneurs, as anticipated. Second, serial founders with relatively more successful experiences seem to hardly change their sourcing as a result of their experience. If anything, they seem to search more broadly or attract employees from a wider pool of affiliations than novice entrepreneurs of similar characteristics operating in the same industry, but this seems to be explained by their unobserved characteristics rather than their accumulated experience. In light of regulatory focus theory (Higgins, 1997, 1998, 2002; Kuhn, 2015; Leung, 2018), our findings are indicative of a stronger prevention orientation among previously failed entrepreneurs, which may be explained by their learning from failure. We now turn our attention to the validity of this mechanism, while accounting for alternative explanations. Yet, before doing so, we present some sensitivity analyses to assess whether the observed changes in employee sourcing are driven by particular groups of founders with failure experience, who could have differently opportunities for learning from past experience.

4.3. Sensitivity analyses: Heterogeneous failure experiences

Table 5 summarizes several tests in which we address heterogeneities in failure experience (see for instance Edmondson, 2011). First, we assess whether failed entrepreneurs change their HCR sourcing strategies depending on the number of businesses discontinued earlier. On the one hand, those experiencing multiple failures may have more observations and mistakes to learn from. On the other hand, discontinuing multiple businesses may indicate an inability or unwillingness to learn from prior feedback, less commitment to the different

businesses, or ah-hoc experimentation. Most failed entrepreneurs in our sample have closed just one business prior to founding the current venture, but 7% have founded and discontinued between two and four distinct firms. We find that serial entrepreneurs tend to become more targeted in their employee sourcing after they discontinue the first business. Those with more failure episodes are not significantly different than novice founders.

In panel b) we account for the length of prior experience by distinguishing serial founders who dissolved their prior business just after one year of activity and those whose business survived longer. While those who quit quickly may do so because they are faster at "pulling the plug" in case of low-quality businesses, longer spells in entrepreneurship may give founders more time to experiment with different strategies and receive feedback on their performance. We find that failed entrepreneurs who survived longer at their previous business are more likely to change their hiring towards a more targeted approach.

The third panel considers the time elapsed between the dissolution of the previous business and the creation of the current venture. Most serial founders who failed earlier (74%) re-enter within one year and these are the most likely to change their hiring patterns. Panel d) further accounts for the industry similarity between the two businesses and shows that changes in hiring are even more pronounced for those who re-enter soon in the same industry. The longer it takes to re-enter, the higher the risk of knowledge depreciation (Parker, 2013), possibly making learning from failure more difficult. In addition, knowledge transfer from one business to another and learning by doing are believed to be maximized when serial founders re-enter the same industry (Rocha et al., 2015). According to prior research, these entrepreneurs are also more likely to attribute failure to their actions than to external causes (e.g., Eggers and Song, 2015).

In conclusion, these sensitivity analyses suggest that our finding of a stronger prevention focus in employee sourcing by failed entrepreneurs remain valid among those

with more meaningful experience (e.g., longer and recent in time, similar in industry). Learning from failure can therefore be a plausible explanation for our results, but we first assess the validity of alternative mechanisms.

*** Table 5 here ***

4.4. Underlying mechanisms

Supply-side effects

Serial entrepreneurs who failed earlier may exhibit a more targeted approach when hiring employees for their subsequent venture due to supply-side constraints such as employees' reluctance to join them. If this is the main driver of our results, employees should respond to observable signals of risk or quality (Bublitz et al., 2017) and shy away from entrepreneurs whose past failure may be more stigmatized or attributed to their (lack of) ability. We first test whether our findings are driven by entrepreneurs who declared bankruptcy based on the *Konkurser* registers maintained by Statistics Denmark. Of all the ventures discontinued by serial founders, 4.4% went bankrupt. We find that only serial founders who closed their firms for other reasons than bankruptcy changed their employee sourcing by tapping repeatedly into fewer pools of HCR (Table A.3a). The results still hold when we exclude entrepreneurs with bankruptcy experience, so stigma of failure does not seem to drive hiring changes.

In a second test we consider the fact that employees may be unable to distinguish between high- and low-ability entrepreneurs and, as a result, they would discount failure less if founders provide any quality signals. We test whether founders' education achievement plays any role but find that failed entrepreneurs with and without university credentials narrow down their search for HCR to similar extents (Table A.3b). In sum, our findings do not seem driven by labor supply responses.

Demand-side constraints

We now focus on demand-side constraints that could explain the observed changes in founders' recruitment strategies. Given that we control for the founder's income at entry, financial constraints are unlikely to be the key underlying mechanism. Nevertheless, we conduct two additional checks to assess the validity of this explanation. First, we split each group of serial founders into higher and lower performers depending on their average profits in the last business relative to the industry median (Table A.3c). Those who failed exhibit more targeted hiring regardless of their past profitability.[6] Second, in Table A.4 we test whether serial entrepreneurs who failed take longer to hire their first employee compared to a) novice future restarters (first model) and b) themselves in the first business (second model). We find the opposite: failed founders hire their first employee sooner than others. Both sets of results are inconsistent with financial constraints being the main driver of our results.

Founder's network constraints could be another candidate explanation: on the one hand, failure may have damaged founder's network and social capital; on the other hand, failure could have been partially caused by founder's network constraints. We test this possibility in Table 6. If failed founders' more targeted approach to hiring is caused by network constraints, these founders should tap into different and relatively easier to access pools of labor over time. However, we do not find any significant differences in their propensity to hire more locally (i.e. employees living in the same municipality as themselves) or possibly closer ties (Danish citizens; employees sharing a work affiliation with them; employees whom they hired in the past or who were sourced from organizations these entrepreneurs hired from already). Entrepreneurs with failure experience are not more likely

[6] Prior profits could also be a quality signal for prospective employees. However, given we do not find significant differences in failed entrepreneurs' employee sourcing depending on their prior profits, this provides additional evidence against stigma or other supply-side constraints driving our findings.

to hire employees that lost their job due to prior employer closure either, who could be perhaps more easily convinced to join a risky venture due to lack of alternatives. However, we do find that serial failed entrepreneurs are more likely to hire from temporary employment agencies (column 5 of table 6) in their subsequent ventures.[7] This finding is in line with serial failed entrepreneurs becoming more prevention oriented in their subsequent hiring strategies. Changes in regulatory focus towards a more prevention orientated staffing indeed predicts a stronger preference for temporary workers (Kuhn, 2015).

*** Table 6 here ***

Finally, we test how entrepreneurial experience and employee sourcing strategies correlate with the type and overall quality of human capital attracted to these ventures. Table 7 presents founder fixed effects models comparing employees hired in the current and former venture of serial entrepreneurs. We find that entrepreneurs hire full-time employees more often after having failed, while those with relatively more successful experiences do not seem to change their reliance on full-time versus part-time workers from one venture to another. The remaining models further reveal that both groups of entrepreneurs hire less experienced employees as they engage in serial venturing, but according to the Wald tests reported at the bottom of Table 7, employees hired by failed founders are more experienced than those hired by other serial entrepreneurs. Finally, we do not find any evidence that serial entrepreneurs pay significantly lower wages after they have failed, nor compared to their more successful counterparts (last two models of Table 7), but supplementary estimations including both worker and founder fixed effects reveal that entrepreneurs with experience hire more productive employees on average. Figures 3a-3d illustrate the distribution of worker fixed

[7] Following Jahn and Rosholm (2014), we identify these temporary workers based on the industry classification code of their prior affiliation, i.e., whether they were previously employed at a temporary work agency.

effect as a proxy of their unobserved ability.[8] Interestingly, we find that entrepreneurs in our sample tend to hire a disproportionate number of employees with above-average ability (i.e. compared to the average worker fixed effect estimated in the full population). This is evident from the greater mass around positive values in all plots. We also find that serial entrepreneurs with a failure record hire relatively less productive employees than more successful entrepreneurs (Figure 3a), and this was already evident in their first business (Figure 3b). Indeed, this disadvantage may have contributed to their prior failure in the first place. Nevertheless, even if differences are still visible in their second business, the gap between the two groups is less pronounced than in the first business. Besides, both groups of entrepreneurs have significantly improved the average quality of their human resources from one business to another (Figures 3c and 3d), and the improvement was more remarkable for those who discontinued their first business (Figure 3c) in line with our theorized mechanism of learning from failure.

In sum, we find that serial entrepreneurs change hiring strategies after failing but this does not necessarily result in lower quality employees. On the contrary, these founders seem to build their teams with more committed (full-time), more experienced, and higher quality workers once they establish another firm.

*** Table 7 here ***

*** Figures 3a-3d here ***

Learning from failure

Experiential learning – especially after failure – is likely to be the main driver of the observed changes in hiring strategies. For learning to be a valid explanation, we should observe improvements in performance associated with experience and the subsequent strategic

[8] To estimate the worker's fixed effect as a proxy of their productivity and unobserved ability, we have used the broad population of workers in the Danish labor market and their trajectories across different firms for the entire period between 2001 and 2012. We have followed the same procedure and specification as in Card et al. (2013).

adaptation (Denrell and March, 2001; Lant et al., 1992; Madsen and Desai, 2010). We look at three performance measures: venture survival, labor turnover, and employment growth. First, while survival is not necessarily equivalent to high performance, it is a particularly appropriate learning outcome for this context, since enhancing the prospect of survival is often a new firm's most critical goal (Kim et al., 2009; Agarwal et al., 2016). Second, another imperative for any firm is to reduce labor turnover and retain employees (Rider and Tan, 2019). Compared to large firms, small firms are more likely to use new hire retention as a recruitment effectiveness metric (Barber et al., 1999) and prior literature shows that employees who fit well with the recruiting organization exhibit lower turnover rates (see Moser et al., 2017 and references therein). Lower labor turnover reduces hiring costs and this may be particularly relevant if replacements are difficult to find and attract. This is often the case in young firms, especially those operating in knowledge-intensive industries characterized by fiercer competition for human capital (Baron et al., 2001). Finally, although one should be cautious in using growth as a performance measure given that entrepreneurs are heterogeneous in their growth aspirations (Cassar, 2014; Ucbasaran et al., 2013), we still consider it because early employment growth can be a stepping-stone for firms' success.

In Table 8 we assess how HCR sourcing practices relate to these three outcomes. We find that new ventures survive longer, suffer less worker turnover, and grow more when they exhibit a more targeted sourcing of their HCR (i.e. a lower number and a higher concentration of hiring sources). We find similar patterns when using the first business of serial entrepreneurs as a counterfactual and including founder fixed effects to examine within-founder variation (appendix table A.5). In those supplementary analyses, we further find that serial entrepreneurs who failed earlier improve their survival and worker retention in the second business. Besides, their changes in HCR sourcing seem to mediate the

improvement in worker retention, as differences in turnover rate between their previous and current businesses vanish once we control for the number and concentration of hiring sources.

*** Table 8 here ***

Table A.6 finally reports employee level models for retention in the firm. We estimate the hazard of leaving the firm, controlling for all the previous variables described earlier, in addition to employee's gender, age, experience, wage, education level, rank in the firm, tenure, and several variables describing their previous labor market status (e.g., unemployment, out of the labor market, or having a common work affiliation with the founder). We confirm that employees stay longer in ventures founded by serial entrepreneurs who failed before compared to firms founded by novice or relatively successful serial entrepreneurs (columns 1 and 2). This result still holds when using the first business of serial entrepreneurs as a baseline (columns 3 and 4). Finally, these models indicate that employees are less likely to leave (either voluntarily or not) firms with narrower HCR sourcing. This collective evidence supports learning as a key mechanism inducing failed entrepreneurs to change their resource mobilization strategies in the second "shot".

5. Discussion and Conclusions

Existing literature has not placed enough emphasis on hiring issues, even though these of central importance to organizations and particularly to new ventures (Greer et al., 2016; Phillips and Gully, 2015). Mobilizing HCR is part of the regular activities that knowledge-intensive firms perform. Furthermore, hiring mistakes may be detrimental to their success. Likewise, there is scant research on the effects of failure in entrepreneurial strategy formation, which is surprising given the recurrence of failure in new ventures, the widespread academic interest in entrepreneurial learning (e.g., Eggers and Song, 2015; Delmar and Shane, 2006; Gompers et al., 2010; Parker, 2013; Rocha et al., 2015; Toft-Keller et al., 2014;

Ucbasaran et al., 2013), and the imprinting effect of founders' past experiences in strategic choices (e.g., Fern et al., 2012). In this paper, we address this gap by investigating whether, how, and why founders' startup experience shapes HCR mobilization in new ventures. Building on behavioral theories of the firm (Argote and Greve, 2007; Cyert and March, 1963; Greve, 2003, 2020) and regulatory focus theory (Higgins, 1997, 1998, 2002), we propose that founders with a failure record are more likely to change their HCR sourcing tactics towards a prevention-oriented approach and a more targeted search consistent with pipeline hiring strategies (Brymer et al., 2014, 2018). Moreover, learning from failure (Bingham and Davis, 2012; Lant et al., 1992; Ott et al., 2017) is a key mechanism inducing these changes in employee sourcing from one business to another.

We have tested our theory by comparing the employee sourcing tactics of about 1,300 serial entrepreneurs whose ventures depend a great deal on human resources – startups with personnel in manufacturing industries and knowledge-intensive services – with a control group of novice founders who engage in serial venturing in the future. Furthermore, to understand the heterogeneous effects of experience depending on past outcomes, we use the discontinuance of former ventures as potential feedback about entrepreneurs' prior performance. We observe more significant and consistent changes in HCR mobilization tactics among serial founders who have discontinued earlier businesses, in line with BTOF suggesting that failure is more likely than success to trigger strategic shifts in organizations (Anand et al., 2016; Lant et al., 1992). A failed startup experience seems to increase founders' reliance on narrow HCR sourcing, and more targeted hiring strategies seem to benefit venture survival, growth, and employee retention, which gives support to learning from failure as a key explanation for our findings. In contrast, serial founders with a relatively more successful record seem to, if anything, broaden their search and increase the number of external sources they recruit their employees from. This behavior seems to be

explained by some unobserved characteristics of this group of relatively more successful entrepreneurs. Besides, as our post-hoc analyses suggest that broader sourcing strategies may be detrimental to firm survival and employee retention, our findings may be indicative of superstitious learning among more successful entrepreneurs (Levinthal and March, 1993; Zollo, 2009).

This paper contributes to multiple debates and research streams. First, by focusing on HCR mobilization in new ventures, we add to emerging discussions on employee selection in startup contexts (Agarwal, 2019; Honoré and Ganco, 2020) and respond to calls for research on the strategies that organizations in general, and young and small firms in particular, use to mobilize resources, namely human resources (Clough et al., 2019; Greer et al., 2016).

Second, by delving deeper on the effects of founders' startup experience in new ventures' hiring tactics, we relate to the long-lived debates on the imprinting effect of founders (DeSantola and Gulati, 2017; Leung et al., 2013; Stinchcombe, 1965) and help unpack new channels through which this effect takes place, by echoing the influence founders have in new venture strategic choices (Fern et al., 2012; Kotha and George, 2012). Furthermore, understanding how key entrepreneurial choices unfold can give us insights about how the so-called entrepreneurial strategies are formed (Gans et al., 2019; Ott et al., 2017, Ott and Eisenhardt, 2020), a topic about which we still lack systematic knowledge but with profound practical implications for founders' effective decision making.

Third, our theory and findings relate to broader organizational learning research (e.g., Anand et al., 2016; Lant et al., 1992; Madsen and Desai, 2010) and contribute to understand the implications of and responses to entrepreneurial failure in particular (e.g., Eggers and Song, 2015; Shepherd, 2003; Ucbasaran et al., 2009, 2013; Yamakawa et al., 2015). We find evidence suggestive of experiential learning in employee sourcing strategies among founders who give it a second shot after having failed in previous businesses, which contrasts with

recent evidence on barriers to learn from failure (e.g., Amore et al., 2020; Schumacher et al., 2020). We hope to nurture more theory development and empirical research on the complex role of entrepreneurial failure in strategic choices and pivoting.

Our findings are also informative to practitioners and policymakers. Our results suggest that policy efforts that focus on higher quality or high-impact entrepreneurs only and that discriminate against founders with a negative entrepreneurial experience may exclude potential entrepreneurs who start with more modest business ideas but who may accumulate startup specific experience and develop resilience capability (e.g., Lafuente et al., 2019), which may help them develop more solid ventures and more effective strategies later on.

We recognize some limitations in this study which may encourage further research on these topics. First, while our findings suggest that targeted hiring practices may benefit new ventures in terms of survival, growth, and labor turnover in early stages, our analysis does not inform us about any long-term effects of these staffing strategies. There might be decreasing returns to these practices or instances in which narrow HCR sourcing harms performance, which raises the need for further research uncovering key contingencies or boundary conditions in the relationships studied in this paper. Second, although we try to disentangle to some extent demand from supply factors, we cannot fully unravel the causal effect of founders' experience from the market reactions to it. Stakeholders, including prospective employees, may react differently to certain founder attributes and change their willingness to join the firm, although recent experimental evidence reveals that job candidates place the least importance on founder and startup legitimacy when judging the attractiveness of startup jobs (Moser et al., 2017). Third, while we look at prior experiences of the main founder, future studies should analyze founding teams and investigate how the coexistence of failure and success experiences within the same team would affect the results. Last but not least, scholars interested in these topics can certainly contribute to this line of inquiry by studying

other strategic aspects of staffing or other strategies choices not necessarily related to HCR mobilization, which can be significantly influenced by founders' different sets of accumulated experiences.

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TABLES

Table 1. Comparison of serial and novice entrepreneurs at startup

	Serial Entrepreneurs (I)	Novice one-shot Entrepreneurs: novice founders who will quit (II)	Novice Future Restarters: novice founders who will become serial (III)	Serial Entrepreneurs' first business (while novice) (IV)	(I)-(II)		(I)-(III)		(IV)-(III)
Age (years)	40.49	41.28	39.10	38.97	-0.798	***	1.383	***	-0.137
Male [a]	0.858	0.762	0.852	0.856	0.096	***	0.006		0.004
Work experience (years)	15.05	14.85	14.01	13.69	0.201		1.042	***	-0.319
University Education [a]	0.532	0.485	0.474	0.490	0.048	***	0.058	**	0.016
Personal income at startup (log)	12.46	12.38	12.44	12.42	0.078	***	0.019		-0.020
Parental entrepreneurship [a]	0.366	0.352	0.364	0.369	0.014		0.002		0.005
Married[a]	0.601	0.591	0.560	0.572	0.010		0.041	**	0.012
Danish nationality [a]	0.953	0.931	0.933	0.947	0.022	***	0.020	**	0.014
Number of children	1.196	1.096	1.093	1.133	0.100	**	0.103	**	0.040
Unemployment (at startup year) [a]	0.037	0.113	0.096	0.117	-0.076	***	-0.060	***	0.021
Startup size (nr employees)	2.439	2.003	2.589	3.545	0.466	**	-0.150		0.957
N (number of firms)	1,311	10,007	1,213	886					

** P < 0.05; *** P < 0.01. [a] denotes dummy variables.

Table 2. Descriptive statistics for human capital sourcing and allocation: novice versus serial entrepreneurs

	1. Novice (future restarters)	2. Serial entrepreneurs	2.1. Serial after firm closure[a]	2.2. Serial without firm closure[a]	(1)-(2)		(2.1)-(2.2)	
Number of hiring sources	4.576	5.324	4.429	7.085	-0.748	**	-2.657	***
Concentration of hiring sources	0.561	0.609	0.635	0.549	-0.048	***	0.086	***

[a] These are classified as such depending of the status of the first firm founded by these serial entrepreneurs, i.e., closed or still running by the time they re-enter. All statistics refer to the mean values in total firm-year observations. ** P < 0.05; *** P < 0.01.

Table 3. Entrepreneurial experience and sourcing of HCR

	Number of hiring sources				Concentration of hiring sources			
	(1)		(2)		(3)		(4)	
Serial entrepreneur (SE)	-0.019				0.037	***		
	(0.048)				(0.013)			
SE_after closure			-0.098	*			0.047	***
			(0.057)				(0.014)	
SE_no closure yet			0.148	**			0.018	
			(0.074)				(0.017)	
Same 3d industry	0.014		0.031		0.001		-0.003	
	(0.067)		(0.067)		(0.016)		(0.016)	
Founder Age	-0.003		-0.004		0.003	***	0.003	***
	(0.005)		(0.004)		(0.001)		(0.001)	
Male	0.080		0.068		0.008		0.009	
	(0.053)		(0.051)		(0.015)		(0.015)	
Work experience	-0.009	***	-0.008	***	-0.002	**	-0.002	**
	(0.003)		(0.003)		(0.001)		(0.001)	
University Education	-0.067		-0.069		0.002		0.003	
	(0.047)		(0.047)		(0.011)		(0.011)	
Personal income at startup	0.028		0.018		0.007		0.008	
	(0.033)		(0.033)		(0.007)		(0.007)	
Parental entrepreneurship	0.007		0.013		0.013		0.013	
	(0.043)		(0.041)		(0.010)		(0.010)	
Married	-0.019		-0.019		0.021	*	0.021	*
	(0.056)		(0.054)		(0.011)		(0.011)	
Danish nationality	0.353	***	0.318	**	-0.006		-0.004	
	(0.129)		(0.125)		(0.041)		(0.041)	
Number of children	-0.008		-0.001		-0.002		-0.002	
	(0.024)		(0.021)		(0.005)		(0.005)	
Unemployed at startup	0.042		0.041		0.028		0.028	
	(0.115)		(0.115)		(0.022)		(0.022)	
Firm size (log)	1.129	***	1.123	***	-0.280	***	-0.281	***
	(0.040)		(0.036)		(0.007)		(0.007)	
Previously unemployed hires (%)	-0.392		-0.343		0.107		0.102	
	(0.323)		(0.319)		(0.089)		(0.089)	
Previously studying hires (%)	-0.505	***	-0.523	***	0.165	***	0.164	***
	(0.113)		(0.107)		(0.026)		(0.026)	
Hires sharing work affiliation (%)	-0.448	***	-0.473	***	0.288	***	0.291	***
	(0.060)		(0.057)		(0.019)		(0.019)	
Different nationality hires (%)	0.201	*	0.181	*	-0.007		-0.006	
	(0.110)		(0.106)		(0.031)		(0.031)	
Public expenditures with job centers per adult	0.148	**	0.155	**	0.019		0.018	
	(0.060)		(0.060)		(0.020)		(0.020)	
Constant	-1.795	***	-1.596	***	0.860	***	0.844	***
	(0.426)		(0.414)		(0.105)		(0.106)	
Firm age, year, & industry dummies	YES		YES		YES		YES	
Number of observations	6,474		6,474		6,474		6,474	
	-		-					
Log pseudo likelihood	12,770.6		12,741.9		-		-	
alpha	0.259		0.253		-		-	
Pseudo R2/R2	0.221		0.222		0.491		0.491	

Columns 1 and 2 are negative binomial estimations for the number of hiring sources (affiliations with existing firms). The data are overdispersed, and therefore NegBin models provide a better fit than Poisson models. Columns 3 and 4 are linear regressions and additionally control for the number of hiring sources (organizations) used by the firm in the respective year. Last row of models 1 and 2 (3 and 4) refers to Pseudo R2 (R2). Values in parentheses are firm-level clustered standard errors. * P < 0.10; ** P < 0.05; *** P < 0.01.

Table 4. Pre-existing differences in human capital sourcing between serial and novice entrepreneurs

	Number of hiring sources		Concentration of hiring sources	
	(1)	(2)	(3)	(4)
Serial entrepreneur (1st business)	-0.029		0.014	
	(0.047)		(0.011)	
SE_1st business closed by reentry		-0.046		0.019
		(0.075)		(0.022)
SE_1st business not yet closed by reentry		-0.027		0.013
		(0.050)		(0.012)
Number of observations	5,785	5,785	5,785	5,785
Log pseudo likelihood	-10,729.2	-10,729.1	-	-
alpha	0.195	0.195	-	-
Pseudo R2/R2	0.243	0.243	0.529	0.529

Columns 1 and 2 (3 and 4) are negative binomial (linear) regressions. Last row of models 1 and 2 (3 and 4) refers to Pseudo R2 (R2). Values in parentheses are firm-level clustered standard errors. All estimations include the same control variables as in Table 3.

Table 5. Sensitivity analyses: different experiences with failure

	Number of hiring sources		Concentration of sourcing	
a) Number of prior business dissolutions				
SE_after one closure	-0.115	**	0.049	***
	(0.056)		(0.014)	
SE_after 2+ closures	0.047		0.020	
	(0.098)		(0.031)	
SE_no closure	0.148	**	0.018	
	(0.074)		(0.017)	
b) Time spent in the closed business				
SE_closed after 1 year	-0.013		0.032	
	(0.092)		(0.023)	
SE_closed after 2+ years	-0.119	**	0.050	***
	(0.057)		(0.015)	
SE_no closure	0.148	**	0.018	
	(0.074)		(0.017)	
c) Time elapsed since prior business closure				
SE_closed & reentry soon (same year or 1y later)	-0.132	**	0.060	***
	(0.063)		(0.016)	
SE_closed & reentry 2+y later	-0.022		0.018	
	(0.065)		(0.020)	
SE_no closure	0.145	*	0.020	
	(0.074)		(0.017)	
d) Similarity between businesses				
SE_closed & reentry soon same 3d industry	-0.144	**	0.061	***
	(0.061)		(0.017)	
SE_closed & reentry soon different 3d industry	-0.075		0.050	***
	(0.065)		(0.018)	
SE_closed & reentry later same 3d industry	0.014		-0.016	
	(0.080)		(0.026)	
SE_closed & reentry later different 3d industry	-0.020		0.032	
	(0.071)		(0.023)	
SE_no closure	0.160	*	0.017	
	(0.083)		(0.016)	
e) Prior performance (profits) level				
SE_closed & below median profit	-0.119	*	0.034	*
	(0.065)		(0.018)	
SE_closed & above median profit	-0.096		0.078	***
	(0.083)		(0.021)	
SE_no closure & below median profit	0.035		0.025	
	(0.096)		(0.020)	
SE_no closure & above median profit	0.235	*	0.005	
	(0.128)		(0.035)	

Values in parentheses are firm-level clustered standard errors. * P < 0.10; ** P < 0.05; *** P < 0.01. Controls included as in Table 3.

Table 6. Entrepreneurial experience and types of hires (serial entrepreneurs' firm versus their own former business)

	Non-Dane hire	Local hire	Hire with common work affiliation	Hire from closed firm	Hire from temporary employment agency	Repeated hire [a]	Hire from repeated source [a]
SE_after closure	0.004	-0.019	-0.035	-0.047 **	0.013 **	0.070	0.041
	(0.020)	(0.055)	(0.025)	(0.019)	(0.005)	(0.110)	(0.126)
SE_no closure yet	-0.011	-0.055	-0.027	-0.043 **	0.006		
	(0.020)	(0.056)	(0.019)	(0.019)	(0.005)		
Firm age, year, & industry dummies	YES	YES	YES	YES	YES	YES	YES
Number of observations	29,546	29,546	29,546	29,546	29,546	15,246	15,246

Models estimated at the employee-level, at the first year they join the firm, with founder fixed effects. The first five models include founder fixed effects. [a] Models restricted to serial entrepreneurs' subsequent businesses - these are probit models with standard errors clustered at the firm level. Local hire is equal to 1 if the focal hire lives in the same municipality as the founder. "Hire with common work affiliation" is equal to 1 if the focal hire and the focal founder have ever worked in the same firm. "Repeated hire" is equal to 1 if the focal hire has been hired previously by the same founder, in his/her first business. "Hire from repeated source" is equal to 1 if the focal hire comes from a firm that was previously used as a source of human capital by the founder in the first business. * P < 0.10; ** P < 0.05; *** P < 0.01. Controls included as in Table 3.

Table 7. Entrepreneurial experience, employee outcomes and employee experience

	Full-time contract		Years of experience		Industry-experience		Hourly wage	
SE_after closure	0.097 **	0.087 *	-0.047 **	-0.040 *	-0.010	-0.013	-0.187	-0.177
	(0.047)	(0.051)	(0.022)	(0.022)	(0.024)	(0.024)	(0.118)	(0.115)
SE_no closure yet	0.040	0.051	-0.202 ***	-0.109 ***	-0.056 **	-0.056 **	-0.073	-0.084
	(0.048)	(0.052)	(0.023)	(0.024)	(0.023)	(0.023)	(0.089)	(0.091)
Nr Hiring Sources		-0.001 ***		-0.001 ***		-0.000 ***		0.001
		(0.000)		(0.000)		(0.000)		(0.001)
Concentration of Hiring Sources		0.181 ***		0.008		0.148 ***		-0.186 *
		(0.050)		(0.036)		(0.020)		(0.110)
Controls	YES	YES	YES	YES	YES	YES	YES	YES
Number of observations	23,161	23,161	29,546	29,546	29,546	29,546	26,127	26,127
Wald test SE_after closure = SE_no closure yet	3.27 *	0.93	48.31 ***	8.87 **	9.93 ***	8.85 **	2.52	2.39

Controls as in Table 3. * P < 0.10; ** P < 0.05; *** P < 0.01. All models are linear models with founder fixed effects and clustered standard errors at the firm level, except the models for years of experience (negative binomial with founder fixed effects). Models for hourly wage further control for type of contract (full-time vs others), tenure, hierarchy in the firm, employee's gender, age, and experience, and are restricted to employee-years with no missing information on wages and type of contracts.

Table 8. Entrepreneurial experience, employee sourcing, and firm outcomes

	Firm Hazard Rate			Turnover Rate			Employment growth		
SE_after closure	-0.294	-0.258		0.018	0.033		-0.021	-0.035	*
	(0.194)	(0.196)		(0.030)	(0.027)		(0.019	(0.019)	
SE_no closure yet	-0.247	-0.261		-0.013	-0.020		-0.015	-0.008	
	(0.223)	(0.227)		(0.033)	(0.031)		(0.025)	(0.024)	
Nr Hiring Sources		0.007	***		0.005	**		-0.003	**
		(0.003)			(0.002)			(0.001)	
Concentration of Hiring Sources		-0.485	*		-0.447	***		0.233	***
		(0.255)			(0.036)			(0.034)	
Firm age, year, & industry controls	YES	YES		YES	YES		YES	YES	
Number of observations	6,042	6,042		5,194	5,194		4,568	4,568	
Log pseudoL	-894.5	-890.8		-	-		-	-	
R squared	-	-		0.260	0.308		0.191	0.213	

Models for firm hazard rate are piecewise constant hazard models with gaussian frailty at the founder level. Models for labor turnover, employment growth, and gross profits (log) are linear regressions with clustered standard errors at the firm level. Labor turnover is defined as the sum of hiring rates and separation rates at the firm-level, between t and t+1. Models for labor turnover exclude the last year of data (2012). Models for profits include a dummy variable identifying the last year of activity of the firm, in case of closure. * P < 0.10; ** P < 0.05; *** P < 0.01. All controls as in Table 3.

FIGURES

Figure 1. Entrepreneurial experience and new ventures' human capital sourcing

(serial entrepreneurs versus "novice future restarters")

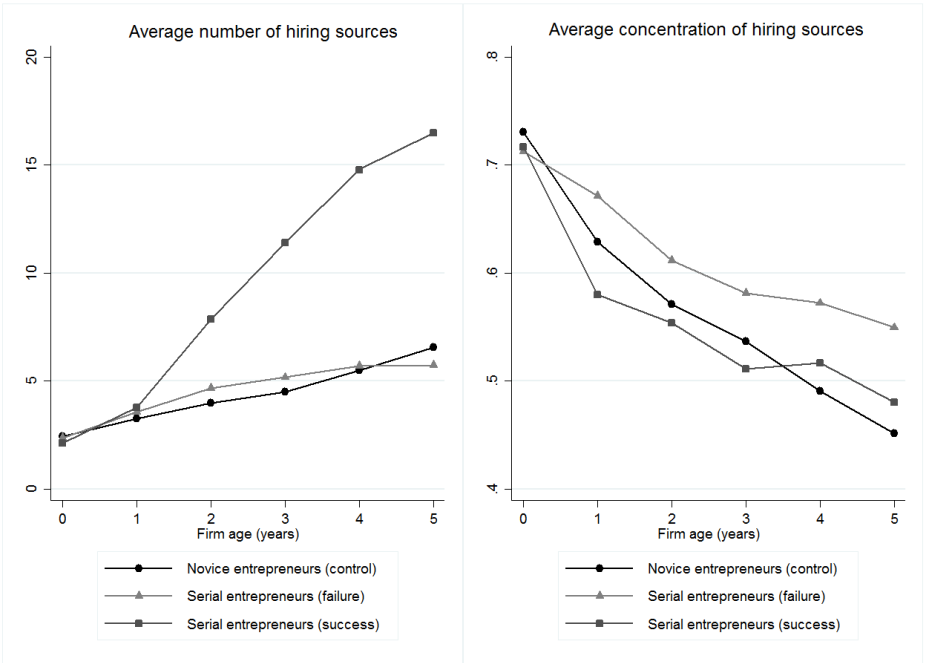


Figure 2a. Predicted number of hiring sources for serial entrepreneurs without failure experience

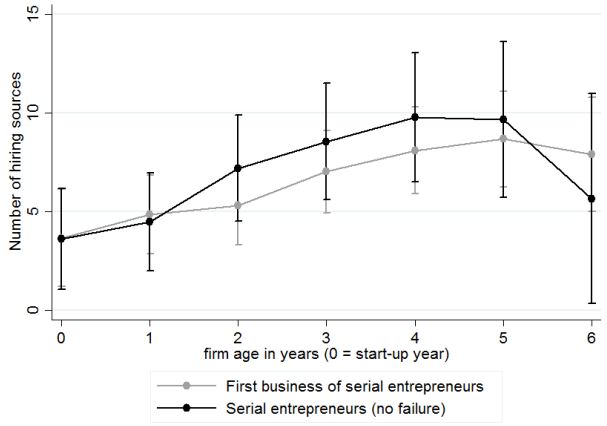


Figure 2b. Predicted number of hiring sources for serial entrepreneurs with failure experience

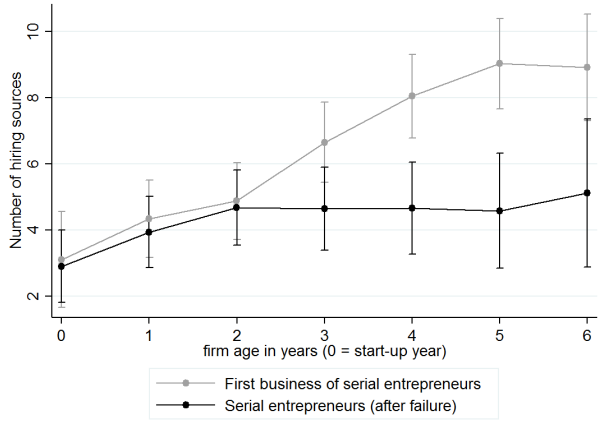


Figure 2c. Predicted concentration of hiring sources for serial entrepreneurs without failure experience

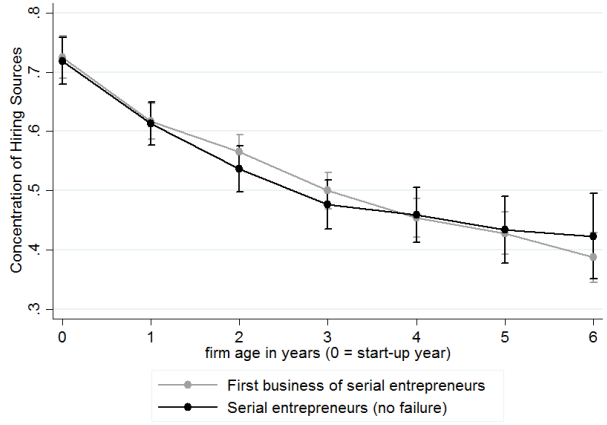
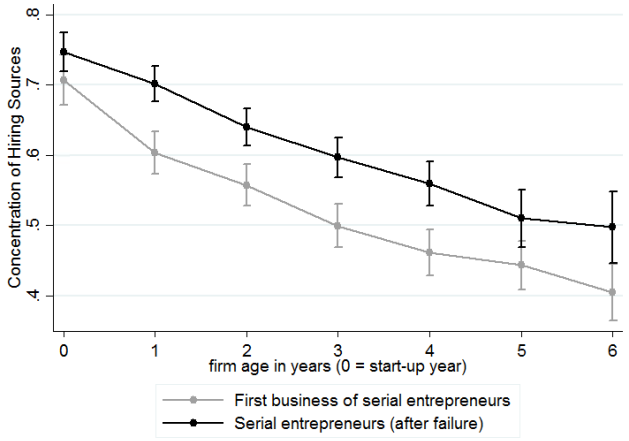


Figure 2d. Predicted concentration of hiring sources for serial entrepreneurs with failure experience

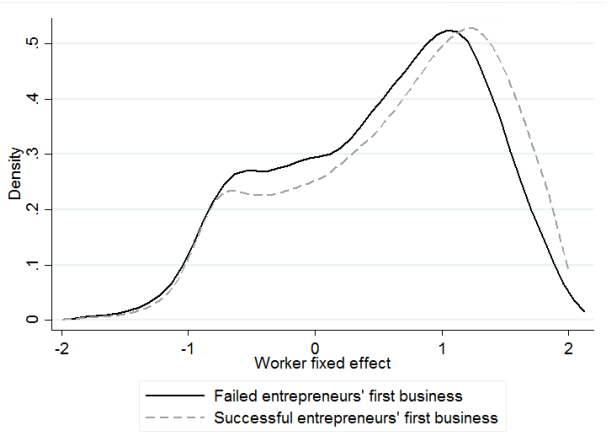


Notes: Predicted margins obtained from models comparing the first and second business of serial entrepreneurs, with and without failure experience. All models include control variables and founder fixed effects.

Figure 3a. Kernel density of worker fixed effect in firms of serial entrepreneurs with and without failure experience

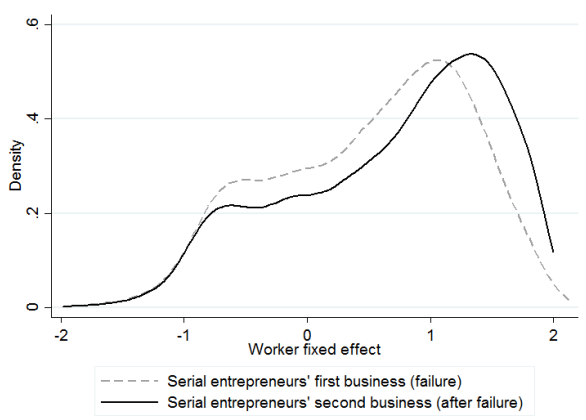
K-S test = 0.0418 ***

Figure 3b. Kernel density of worker fixed effect in the first firm of serial entrepreneurs



K-S test = 0.0820 ***

Figure 3c. Kernel density of worker fixed effect in firms of serial entrepreneurs who have failed: first and second business compared



K-S test = 0.1242 ***

Figure 3d. Kernel density of worker fixed effect in firms of serial entrepreneurs who have not failed earlier: first and second business compared

K-S test = 0.0839 ***

Notes: *** P-value < 0.001. K-S test refers to the Kolmogorov-Smirnov test for equality of distribution functions.

Notes: Worker fixed effects are estimated with two way fixed effects regressions, also known as AKM models.

APPENDIX

Table A.1. Propensity Score Matching Estimates for the Treatment Effect of Entrepreneurial Experience on Human Capital Sourcing (Average Treatment Effect on the Treated)

	Number of hiring sources		Concentration of hiring sources	
Serial (vs. Novice) Entrepreneurs	1.265	***	0.035	***
	(0.487)		(0.011)	
Failed Serial (vs. Novice) Entrepreneurs	0.008		0.031	***
	(0.352)		(0.011)	
Successful Serial (vs. Novice) Entrepreneurs	3.337	**	0.001	
	(1.410)		(0.017)	

In all cases, the groups are matched based on all the control variables described before and used in the models reported in Table 3 (founder demographics, general and specific human capital, income at startup, firm age, size, industry, workforce composition, and year). Values in parentheses are robust standard errors. ** P < 0.05; *** P < 0.01

Table A.2. Additional robustness checks to the main results

	Number of hiring sources		Concentration of hiring sources	
a) First 5 years of a firm's lifecycle				
SE_after closure	-0.092	**	0.041	***
	(0.041)		(0.014)	
SE_no closure yet	0.148	***	0.020	
	(0.052)		(0.017)	
Number of observations	5,333		5,333	
b) Using novice one-shot entrepreneurs as control group				
SE_after closure	-0.057		0.027	**
	(0.054)		(0.013)	
SE_no closure yet	0.199	***	-0.010	
	(0.064)		(0.015)	
Number of observations	26,098		26,098	
c) Heckman two-stage selection adjustment				
SE_after closure	-0.069	**	0.080	***
	(0.034)		(0.013)	
SE_no closure yet	0.038		0.002	
	(0.041)		(0.015)	
Number of observations	9,627		9,627	
d) Using serial entrepreneurs' first business as a control group (includes founder fixed effect)				
SE_after closure	-0.128	***	0.037	**
	(0.045)		(0.017)	
SE_no closure yet	-0.015		-0.003	
	(0.036)		(0.018)	
Number of observations	5,549		5,549	

Panel c) accounts for possible sample selection, given that hiring sources and their concentration are only observed once a firm starts hiring and has a physical workplace with personnel. We use as exclusion restrictions a number of founder's demographic characteristics that predict hiring but not the breadth nor the depth of HCR sourcing (being married, number of children, parental entrepreneurship and founder income at entry), together with the share of startups of the same age in the same industry and year having personnel. ** P < 0.05; *** P < 0.01.

Table A.3. Heterogeneities in the relationship between entrepreneurial experience and HCR sourcing

	Number of hiring sources		Concentration of sourcing	
a) Bankruptcy experience and human capital sourcing				
SE_after bankruptcy	0.073		0.031	
	(0.126)		(0.037)	
SE_after closure, not bankrupt	-0.103	*	0.040	***
	(0.058)		(0.015)	
SE_no closure yet	0.146	**	0.023	
	(0.074)		(0.018)	
b) Founder education level, entrepreneurial experience, and human capital sourcing				
SE_after closure_lower education	-0.069		0.043	***
	(0.057)		(0.016)	
SE_after closure_higher education	-0.116		0.049	***
	(0.074)		(0.018)	
SE_no closure yet_lower education	-0.020		0.041	*
	(0.072)		(0.024)	
SE_no closure yet_higher education	0.280	**	-0.001	
	(0.114)		(0.020)	
c) Prior performance (profits) and human capital sourcing				
SE_closed & below median profit	-0.119	*	0.034	*
	(0.065)		(0.018)	
SE_closed & above median profit	-0.096		0.078	***
	(0.083)		(0.021)	
SE_no closure & below median profit	0.035		0.025	
	(0.096)		(0.020)	
SE_no closure & above median profit	0.235	*	0.005	
	(0.128)		(0.035)	

Values in parentheses are firm-level clustered standard errors. * P < 0.10; ** P < 0.05; *** P < 0.01. Controls included as in Table 3.

Table A.4. Time to hire the first employee

	Serial entrepreneurs vs. novice future restarters		Serial entrepreneurs vs. their own first business	
SE_after closure	-0.143	**	-0.259	***
	(0.063)		(0.089)	
SE_no closure yet	-0.023		-0.143	
	(0.072)		(0.102)	
Controls	YES		YES	
Number of observations	4,131		3,347	
Log likelihood	-2,454.6		-1,926.5	

Complementary log-logistic model with Gaussian frailty at the founder level. The dependent variable is equal to 1 in the year the firm hired the first employee, and 0 for all the previous years. Controls include all the founder characteristics included in Table 3, year, firm age, and industry fixed effects, and labor market expenditures at the municipality level. Values in parentheses are robust standard errors. ** P < 0.05; *** P < 0.01.

Table A.5. Entrepreneurial experience, employee sourcing and firm outcomes (comparing serial entrepreneurs' performance in the first and subsequent businesses)

	Firm Hazard Rate				Turnover Rate				Employment growth			
SE_after closure	-0.615	***	-0.633	***	-0.170	**	-0.133		-0.004		0.005	
	(0.208)		(0.208)		(0.088)		(0.087)		(0.064)		(0.082)	
SE_no closure yet					0.011		0.048		0.107	*	0.059	
					(0.068)		(0.067)		(0.059)		(0.078)	
Nr Hiring Sources			0.019	***			0.002	***			-0.005	***
			(0.004)				(0.000)				(0.001)	
Concentration of Hiring Sources			-0.319				-0.452	***			0.247	***
			(0.271)				(0.041)				(0.047)	
Firm age, year, & industry controls	YES		YES		YES		YES		YES		YES	
Number of observations	4,055		4,055		3,922		3,922		3,843		3,843	
Log pseudo likelihood	-675.6		-668.5		-		-		-		-	
R squared (within)	-		-		0.234		0.270		0.276		0.319	

Models for firm hazard rate are piecewise constant hazard models with Gaussian frailty at the founder level. We restrict the estimations to serial entrepreneurs whose first business had been closed by the time they found the second business. The remaining models include all serial entrepreneurs (both failed and successful) and compare their first and second businesses, by using founder fixed effects. Models for labor turnover exclude the last year of data (2012). Models for profits include a dummy variable identifying the last year of activity of the firm, in case of closure. * P < 0.10; ** P < 0.05; *** P < 0.01. All controls as in Table 3.

Table A.6. Employee's hazard of leaving the firm

	Serial vs. Novice (future serial) Entrepreneurs				Serial entrepreneurs vs. their first business			
SE_after closure	-0.132	***	-0.142	***	-0.263	***	-0.275	***
	(0.024)		(0.024)		(0.029)		(0.029)	
SE_no closure yet	0.061	**	-0.015		-0.107	***	-0.174	***
	(0.026)		(0.028)		(0.030)		(0.030)	
Nr of hiring sources in the firm			0.001	***			0.001	***
			(0.000)				(0.000)	
Concentration of hiring sources			-0.182	***			-0.804	***
			(0.050)				(0.0580)	
Founder and Firm controls	YES		YES		YES		YES	
Worker's Education, Tenure & Occupation (1d) dummies	YES		YES		YES		YES	
Industry and Year dummies	YES		YES		YES		YES	
Number of Observations	53,544		53,544		54,072		54,072	
Log pseudoL	-31,354.0		-31,018.7		-30,950.9		-30,526.8	

Piecewise constant hazard models for the probability of employee's exit, with Gaussian frailty for unobserved heterogeneity at the individual-level. Controls as in Table 3. Worker-level controls include gender, age, experience, education, occupation, source, wage income, and dummies for tenure. Values in parentheses are standard errors. *,**, and *** mean significant coefficients at the 10%, 5%, and 1% level respectively.