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Human resource redeployability and entrepreneurial hiring strategy

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Abstract

Research Summary: The timing of talent acquisition is a central decision for new ventures. On one hand, hiring after demand is proven minimizes losses. On the other hand, hiring before demand is proven allows new ventures to start developing unique capabilities. We resolve this tension by proposing that the timing depends on human resource redeployability. We test our theory with the population of Finnish ventures showing that portfolio entrepreneurs hire more employees early on because of higher redeployment potential and that they hire employees with more transferable skills in order to benefit from the redeployment option. To probe our mechanisms, we examine how talent acquisition strategies in portfolio and standalone ventures vary with external conditions that reduce or amplify the benefits of redeployment.

Managerial Summary: This paper explores when startups begin scaling their team. Our findings suggest that the potential to redeploy employees (to another startup, for example) motivates entrepreneurs to scale earlier. At the same time, we find that the entrepreneurs who scale earlier due to redeployment potential tend to hire employees with skills that can be transferred more easily. We further show that our results are affected by the level of rigidity in the labor market.

When labor markets become more flexible, the impact of easy redeployment on an entrepreneur's hiring strategy becomes less important. Our findings provide important insights into how the external environment and policy changes can affect the trajectory of startups even at their earliest stages.

KEYWORDS

entrepreneurship, hiring strategy, human capital, new ventures, resource redeployment

1 | INTRODUCTION

The strategy literature has long maintained that human capital significantly influences firm performance (e.g., Campbell et al., 2012; Cooper et al., 1994; Ployhart & Moliterno, 2011). For example, achieving and sustaining competitive advantage depends largely on a firm's ability to acquire talent (e.g., Carnahan & Somaya, 2013; Coff, 1997; Dierickx & Cool, 1989; Grant, 1996; Hall, 1993; Kogut & Zander, 1992). The recruitment of early employees is particularly crucial because initial hires have an outsized influence on the firm's growth trajectory and the likelihood of survival (Agarwal et al., 2016; Campero & Kacperczyk, 2020; DeSantola & Gulati, 2017; Ganco et al., 2019; Roach & Sauermann, 2015; Stewart & Hoell, 2016). Concurrently, much like other strategic choices in a new venture, hiring decisions are made amid extreme uncertainty surrounding future market demand (Gans et al., 2019; Knight, 1921; Wu & Knott, 2006). This places entrepreneurs in a precarious position, forcing them to navigate a fundamental trade-off regarding the timing of hiring.

On the one hand, new venture founders may opt to hire employees after market demand is proven to minimize initial investments in human capital and maintain flexibility until demand uncertainty subsides. Entrepreneurship theories highlight the advantages of starting with low-investment experiments (Ries, 2011) and escalating commitment once demand is confirmed (e.g., Ewens et al., 2018; Kerr et al., 2014; Thomke, 2003). On the other hand, new venture founders may be compelled to invest in early hires ahead of market demand to develop unique resources and capabilities, enabling swifter scaling once the product and market become validated. Strategy research on decision making under uncertainty shows that a gradual approach driven by customer demand risks forfeiting the first-mover advantage, particularly in competitive environments (e.g., Dixit & Pindyck, 1994; Gilbert & Lieberman, 1987).

To resolve this theoretical tension at the core of any entrepreneurial venture, we propose that the entrepreneur's hiring strategy will critically depend on the irreversibility or "sunk" nature of human capital investments (Dixit, 1989; Dixit & Pindyck, 1994). More specifically, we argue that, when human capital investment becomes more reversible or less sunk—owning to a startup founder's ability to easily or affordably redeploy employees in case of failure—founders will hire more aggressively ahead of market demand. Conversely, when redeployment potential is limited or absent, rendering human capital investments less reversible, entrepreneurs will delay commitment until market uncertainty dissipates, resulting in fewer early-stage hires. In addition, because resource redeployment potential depends on the degree to which resources are fungible or entail

low adjustment costs (Chang & Matsumoto, 2022; Sohl & Folta, 2021a, 2021b), we further anticipate that entrepreneurs with more redeployment options will employ workers with more transferrable skills compared with those with fewer such options. In sum, we expect talent acquisition strategies to diverge between entrepreneurs with and without redeployment potential, such that the former group will hire more workers in the initial stages and select workers with more transferrable human capital.

As an additional test of our theoretical mechanism, we identify two external conditions affecting the value of redeployment in new ventures: (a) positive market signals and (b) labor market rigidity. First, consistent with our theory, we expect that a positive market signal will lessen a venture's demand uncertainty, dampening the inclination of entrepreneurs with limited redeployment options to curtail hiring due to overcapacity risks. Second, we expect the predicted differences in hiring strategies of new venture founders with and without redeployment potential to diminish as overinvestments in employees become less costly for both types of ventures. Hence, we predict that a decrease in labor market rigidity—which would reduce hiring and termination costs for all—will homogenize talent acquisition strategies across new venture founders, regardless of their redeployment potential.

We test our predictions using large-scale, longitudinal employee–employer matched data from Finland. In this empirical setting, we examine how the reversibility of human capital investments affects hiring strategies in new ventures by comparing portfolio and standalone entrepreneurs (Baert et al., 2016; Lechner & Leyronas, 2009; Parker, 2014; Santamaria, 2021). A portfolio founder concurrently operates multiple independent businesses and thus has redeployment options for the focal venture's workforce in case of failure (Santamaria, 2021). This distinction thus provides a context in which the tension between the two seemingly contrasting views regarding hiring ahead versus behind market demand can be resolved.

A notable feature of the data is that they contain information on employment contracts and the annual accounts of all active limited liability firms in Finland, including all ventures of standalone and portfolio founders launched between 2007 and 2017. In addition, the Finnish registry data document the career histories and life events of all working Finns, permitting us to examine differences in venture hiring strategies at the population level. With the richness of our data, it is also possible to account for the number of employees that ventures will hire during their life cycle and the type of skills these employees possess. In our empirical analysis, we first assess the hiring strategies of a matched sample of ventures of standalone and portfolio founders, examining (a) the number of employees hired early on, and (b) whether new hires have more transferrable or more specialized skills. Second, we analyze whether the hiring event occurs before or after observing a positive market signal that reduces market uncertainty. Finally, to collect additional causal evidence of the core mechanism driving the heterogeneity between standalone and portfolio hiring strategies, we leverage an exogenous shock affecting labor market rigidity in Finland. Our empirical results provide systematic evidence for the proposed theoretical framework.

The contribution of our study is twofold. First, we extend the emerging line of research on strategic human capital and talent acquisition within new ventures. Past studies have begun to unpack the determinants of talent acquisition in new ventures (e.g., Fairlie & Miranda, 2016; Ganco et al., 2019). We complement this prior work by documenting the critical impact of human capital redeployability on hiring strategies in entrepreneurial ventures. In this respect, we demonstrate that founders adopt varying hiring strategies depending on the reversibility of their human capital investments. Our findings indicate that the potential to redeploy workers

significantly affects not only the extent to which founders hire ahead or behind market demand but also the skillset of the new hires. Second, our study contributes to the long-standing scholarship on decision making under uncertainty (Belenzon et al., 2019; Dixit & Pindyck, 1994; Ghemawat, 1991; Gilbert & Lieberman, 1987) by integrating it with the strategic human capital literature (e.g., Chatain & Meyer-Doyle, 2017; Dixit, 1989; Harris & Helfat, 1997; Mawdsley & Somaya, 2016; Starr et al., 2018). While scholars have increasingly recognized the value of implementing risk-reduction strategies when companies invest resources under demand uncertainty (e.g., Belenzon et al., 2019; Gilbert & Lieberman, 1987), we document how the adoption of such strategies requires the acquisition of different human capital resources.

2 | THEORY AND HYPOTHESES

2.1 | Past research: Hiring in new ventures

Acquiring human capital resources is crucial for most firms because new hires determine an organization's future survival and success (Hitt et al., 2011; Mackey, 2008; Ployhart et al., 2014). For young firms, the ability to recruit talent is especially important because initial hires have a major influence on new venture's growth and performance (Agarwal et al., 2016; Gjerløv-Juel & Guenther, 2019), and ability to transition beyond the startup stage (DeSantola & Gulati, 2017; Ganco et al., 2019; Phillips & Gully, 2015; Picken, 2017; Stewart & Hoell, 2016). Yet, mobilizing human capital resources can also be challenging for many founders. For example, attracting and retaining workers can prove difficult due to liability of newness (Stinchcombe, 1965), or having limited resources to compensate new hires in the short term (e.g., Burton et al., 2018).

Beyond these well-documented difficulties, however, founders may face an acute dilemma in deciding *when* to hire. On the one hand, they may be motivated to delay hiring to avoid investing in human capital until the initial market demand uncertainty is resolved. Indeed, entrepreneurship scholars have long emphasized the benefits of avoiding upfront commitment when demand is uncertain—as is the case for startups (e.g., Dixit, 1989; Wu & Knott, 2006). From this perspective, building simple and inexpensive versions of potential products and continuously iterating based on user feedback (Blank, 2013) is preferred to making large, sunk investments (Ewens et al., 2018; Kerr et al., 2014; Loch et al., 2001; Nelson, 1961; Ries, 2011; Thomke, 2003). As this literature emphasizes, the advantage of making minimal upfront investments in resources also implies that founders should refrain from hiring employees until demand is validated.

On the other hand, founders may face pressure to hire employees ahead of the market demand, particularly when the downside of upfront investment can be mitigated through other means. Some studies have highlighted the benefits of moving fast, ahead of market rivals, rather than waiting for uncertainty to subside (e.g., Belenzon et al., 2019; Dixit & Pindyck, 1994; Ghemawat, 1991; Gilbert & Lieberman, 1987). Early work in economics emphasized the value of early resource investment, arguing that irreversible commitments help secure future market space by fending off rivals and allowing entrepreneurs to scale up in time (Dixit & Pindyck, 1994; Fudenberg & Tirole, 1983; Ghemawat, 1991; Gilbert & Lieberman, 1987). Building on this work, strategy scholars have argued that committing resources ahead of demand may mitigate undercapacity problems when a new venture is ready to scale. For example, Belenzon et al. (2019) found that following increases in labor market flexibility, firms are more likely to make heavy resource investments at entry when capital can be easily substituted by labor or when the costs of hiring and firing decline.

Although recent studies have begun to examine hiring strategies in new ventures (e.g., Agarwal, 2019; Honoré & Ganco, 2020), past research has not addressed how entrepreneurs time the hiring of employees. The vast majority of studies on startup hiring have focused on factors that enhance the founder's ability to attract and source new employees. A broader theme in these studies is the critical role of founders' attributes, including their experience or demographic characteristics, in attracting new hires during the early stages of business development (e.g., Agarwal et al., 2016; Ganco et al., 2019; Giraudo et al., 2019). For example, Honoré and Ganco (2020) demonstrated that founders without relevant industry experience can effectively attract experienced employees only by assembling a larger entrepreneurial team and offering premium wages. Relatedly, Giraudo et al. (2019) showed that matching on competencies determines early hiring patterns: more experienced and more skilled entrepreneurs with prior entrepreneurial experience find new matches among workers who exhibit greater human capital. Finally, complementing these findings, other studies have documented the influence of founders' demographic attributes in attracting and sourcing new hires. Using data on candidates' job applications to high-tech startups, Campero and Kacperczyk (2020) found that women are more attracted to female than to male founders, although female-owned startups do not favor women at the screening stage. Related research has shown that being a racial or gender minority founder delays a founder's ability to attract a viable applicant pool (Fairlie & Miranda, 2016; Snellman & Younkin, 2021).

Together, these studies reveal that a founder's attributes affect hiring success in the early stages of a new venture's life cycle, but they offer little insight into how to reconcile the key theoretical tension between hiring ahead versus behind market demand. Thus, in what follows below, we focus on the degree to which a founder's investments in human capital are reversible—in that hires can be redeployed in case of failure (Belenzon et al., 2019; Folta et al., 2016)—as one theoretical contingency that helps dissolve the aforementioned tension.

2.2 | Redeployment and resource flexibility in human capital investments

The potential for resource redeployment, or the creation of alternative uses for the resources acquired is well established in emergent strategic management research (Lieberman et al., 2017). Having multiple uses for the resources at hand offers economic benefits, such as intertemporal economies of scope (Helfat & Eisenhardt, 2004; Sakhartov & Folta, 2014) and a dynamic advantage of flexibility in allocating resources (Lieberman et al., 2017; Sakhartov & Folta, 2014; Sohl & Folta, 2021a, 2021b). Prior research shows that the benefits of redeploying resources are particularly pronounced in diversified and multiunit firms, as unused resources can be reallocated to another business unit to create more value (Dickler & Folta, 2020; Sakhartov & Folta, 2015; Wu, 2013). Being part of a larger collective, such as business groups (Belenzon et al., 2019) or multiproduct firms (Lieberman et al., 2017), is indeed a frequent indicator of resource redeployability in the firm. Importantly, emergent research shows that resource redeployment is an effective way to solve the problem of investment irreversibility in diversified organizations (Dixit, 1989; Dixit and Pindyck, 1994). For example, empirical studies of large, multiproduct corporations have found that firms enter and exit new markets more quickly when their resources can be redeployed internally to related business units (Lieberman et al., 2017). Other studies have similarly confirmed that corporate groups are more likely to enter new markets with a capital-intensive strategy (Belenzon et al., 2019) compared with

standalone firms—owing to the benefits of potential capital redeployment in case of failure. Crucially, this potential for resource redeployment can mitigate the costs of irreversible investments incurred when entering new businesses or markets. The resource redeployment logic will further extend to human capital investment decisions in new ventures, affecting entrepreneurs' choices to hire either ahead or behind market demand. Specifically, we propose that the timing of human capital investments in new ventures will crucially depend on the founder's redeployment potential.

Acquiring human capital is often considered an irreversible or "sunk" investment (Dixit, 1989; Dixit and Pindyck, 1994), which can be challenging to recoup in case a new venture is in financial distress or on the brink of failure. Unlike physical capital or intellectual property rights, employees cannot be sold on the market and converted into cash. In addition, terminating an employee can be time-consuming and costly, especially in rigid labor market environments (Acharya et al., 2014).[1] For example, adhering to proper termination procedure, such as giving notice or providing severance pay, may take a considerable amount of time and lead to legal complications, including wrongful termination lawsuits, which could threaten a new venture's survival (e.g., Abowd & Kramarz, 2003). In light of these labor-market frictions, it is often advantageous to delay hiring until market demand is fully validated and the risk of overcapacity declines.

However, these challenges of reversing hiring decisions will be considerably less pertinent for new ventures with founders who can internally redeploy workers without relying on the external labor market. Such might be the case, for example, for a portfolio entrepreneur, or a founder who simultaneously operates a number of independent businesses. A founder operating multiple businesses has several options to redeploy underutilized workers from one venture to another in case of failure (Parker, 2014; Santamaria, 2021).[2] Thus, startups launched by entrepreneurs with such redeployment potential will be more likely to prioritize hiring ahead of demand because the potential for worker redeployment reduces the irreversibility of human capital investments. In short, when founders can redeploy unused workers, the costs of overcapacity in response to lower-than-expected market demand will be significantly reduced.

Yet the ability to redeploy resources, including human capital, hinges not only on the availability of alternative uses for these resources but also on their fungibility, or the ease with which they can be transferred to an alternative use at a low adjustment cost. Numerous studies emphasize the critical role of adaptation and resource reallocation at a low cost in successful redeployment (e.g., Helfat & Lieberman 2002; Morandi Stagni et al. 2020; Sakhartov & Folta, 2014; Sohl & Folta, 2021a, 2021b; Uzunca 2018). However, transferring human capital across activities in distinct product markets often incurs considerable retraining and reallocation costs (Helfat & Eisenhardt, 2004), especially when task or occupational differences across units widen (Sakhartov & Folta, 2015). These reallocation costs tend to be higher for workers with specialized skills given that specialists are less transferrable across different roles, tasks, or units (Penrose, 1959; Sakhartov & Folta, 2014). At the same time, specialists are often more valued by employers (Lazear & Oyer, 2012; Kuhnen & Oyer, 2016; Zuckerman, 1999),

[1]Hiring and terminating workers is associated with significant direct and indirect costs, including costs to cover recruitment and onboarding activities, the severance payment and others (e.g., Abowd & Kramarz, 2003).

[2]Beyond the distinction between portfolio versus standalone entrepreneurs, many other factors may influence the potential for employee redeployment, including variation in founders' personal networks, market thickness, a firm's ability to pivot, and others.

owing to their unique skills and potential to create value. These benefits may be even more salient for startup employers because new ventures often rely on specialized labor and unique skills to develop their products (Masters & Thiel, 2014) and grow (e.g., Siepel et al., 2017; Lee & Kim, 2023). Thus, while employees with transferable skills may share their knowledge and increase other team members' output (e.g., Sevcenko & Ethiraj, 2018), in general, these positive externalities might be less beneficial for founders because early-stage startups have few employees and entrepreneurs themselves are often equipped with generic skills (Lazear, 2004).

Thus, when redeployment potential is low, the benefits of specialization will be greater and founders will likely prefer workers with more specialized skills.[3] However, greater redeployment potential will increase the entrepreneur's consideration of redeployment costs, lowering the expected return from hiring specialized labor. Thus, entrepreneurs with redeployment potential will be inclined to hire workers with transferable skills, anticipating their high fungibility across different roles (Becker, 1975; Castanias & Helfat, 1991).

In sum, new venture founders face an acute tradeoff between hiring ahead and behind market demand due to irreversibility of human capital investments. We propose that an entrepreneur's potential to redeploy acquired resources to alternative uses will determine the timing of hiring, resolving the key theoretical tension about when to hire. Specifically, we expect entrepreneurs to hire more aggressively ahead of demand when they have the potential to redeploy human capital by reallocating unused resources from one task to another. At the same time, as the benefits of redeployment also depend on human capital resource fungibility, we expect entrepreneurs with redeployment potential to hire workers with more transferrable skills. Our arguments can be summarized in the two hypotheses below, and the Supporting information provides a stylized formal model that clarifies the necessary assumptions that inform our hypotheses.

> **Hypothesis 1.** A new venture launched by an entrepreneur with redeployment potential will initially hire more employees than a similar venture launched by an entrepreneur without such potential.

> **Hypothesis 2.** A new venture launched by an entrepreneur with redeployment potential will initially hire employees with higher skill transferability than a similar venture launched by an entrepreneur without such potential.

2.3 | Mechanisms: Response to positive market signal and labor market rigidity

Our core argument suggests that entrepreneurs with redeployment potential will hire more employees early on while prioritizing employees with greater skill transferability. To probe the mechanisms behind these claims, we further examine whether these talent acquisition strategies will systematically vary with the following external conditions that either reduce or amplify the problem of investment irreversibility, and thus the benefits of redeployment: (a) uncertainty regarding market demand, and (b) labor market rigidity.

[3]Founders may still be less able to hire specialized labor than incumbent firms due to their pay constraints (Burton et al., 2018).

First, our argument that new ventures launched by founders with limited or nonexistent redeployment potential will conserve upfront investment in human capital by hiring fewer employees assumes that demand is uncertain in the early stages of business development. When uncertainty about demand resolves, startups launched by entrepreneurs with limited redeployment potential will hire more workers. Conversely, employee hiring patterns will be unlikely to change significantly when demand uncertainty clears for new ventures launched by entrepreneurs with redeployment potential. Unlike their counterparts, these entrepreneurs have already hired more early on, given their ability to reverse their investment if the new venture fails. A direct corollary of our argument, therefore, is that new ventures launched by entrepreneurs without redeployment potential will be more responsive to positive market signals clearing market uncertainty. Overall, we thus expect talent acquisition strategies of entrepreneurs without redeployment potential to be more responsive to changes in demand compared with strategies of entrepreneurs with such potential. Thus:

> **Hypothesis 3.** As a response to positive market signal clearing demand uncertainty, a new venture launched by an entrepreneur without redeployment potential will increase hiring more rapidly than a new venture launched by an entrepreneur with such potential.

Finally, underlying our hypotheses is the key assumption that labor represents a sunk investment in that committing to staff is at least partly irreversible. Consistent with this notion, ample research shows that firing decisions are more costly to reverse when labor markets are rigid (e.g., Cahuc & Malherbet, 2004; Wasmer, 2006). In a rigid labor market environment, terminating employees imposes a more significant financial burden on employers, such as procedural costs of severance payment and potential lawsuits (e.g., Abowd & Kramarz, 2003; Acharya et al., 2014). These costs can be systematically higher for new ventures in relative terms because startups are often the ones that face more acute resource constraints (Stinchcombe, 1965) and lack professional human resource management systems to terminate workers easily (DeSantola & Gulati, 2017). Importantly, if entrepreneurs could terminate workers at a negligible cost, then hiring aggressively and reaching overcapacity would yield no added risk for new ventures. Therefore, without additional constraints of labor market rigidity, new ventures will hire workers upfront to scale faster independently of the redeployment potential of their founders (e.g., Belenzon et al., 2019). Simply put, as labor market rigidity declines, making human capital an easily reversible investment, the benefits of redeployment will diminish, imposing a boundary condition on our claims. Thus, differences in hiring strategies between entrepreneurs with and without redeployment options will decline when labor rigidity decreases:

> **Hypothesis 4a.** A reduction in labor market rigidity will reduce the difference in the number of employees hired by new ventures launched by entrepreneurs with and without redeployment potential.

> **Hypothesis 4b.** A reduction in labor market rigidity will reduce the difference in employees' skill transferability between new ventures launched by entrepreneurs with and without redeployment potential.

3 | DATA AND SAMPLE

We test our propositions with data for the population of Finnish entrepreneurs and their ventures. Finland is a typical developed economy with a vibrant startup ecosystem focused on export-oriented high-technology ventures (GEM, 2016, 2018; OECD, 2020).[4] We use data aggregated and hosted by Statistics Finland. Our main data come from the FOLK Employment Relationship dataset, which includes contract-level information on employment relationships for all individuals older than 15 living permanently in Finland on the last day of each year. The contract-level structure of the data allows us to track the hiring strategies of early-stage ventures of standalone and portfolio entrepreneurs at the annual and month levels. The month-level analysis is essential for our mechanism tests relating to labor rigidity because the institutional reform that reduced labor market rigidity was staggered across months. The month-level analysis thus allows us to leverage a difference-in-differences specification to test our hypotheses. We complement the FOLK Employment Relationship data with venture financial statement data from the Finnish Business Register and the Business Taxation Register, covering all Finnish firms in nearly all industries. Individual-level background information is sourced from Statistics Finland's other FOLK datasets, which include detailed information on individual characteristics such as age, education, and individual income for all the entrepreneurs and employees in our dataset.[5] The Finnish registry data cover the universe of firms and individuals, but we exclude from our sample industries in the public and nonprofit sectors; industries that produce basic commodities (primary production, mining, and quarrying and tobacco)[6]; and industries in which starting a new business is highly regulated, can be motivated by taxation motives, or requires significant starting capital, while growth aspirations and opportunities are limited.[7] Our main sample further excludes (1) companies in the financial industry (NACE, 2002: 65–67) because of poor data quality, as recommended by Statistics Finland; and (2) holding companies (NACE 2002: 74150) because these firms are not associated with business operations.[8] These exclusions eliminate about 13.1% of observations from our initial sample. Nevertheless, robustness checks show that our estimates are recovered when we use the entire sample. We further exclude firms that Statistics Finland flagged as nongenuine

[4]According to the Global Entrepreneurship Monitor (GEM), 27.4% of Finnish early-stage entrepreneurs operate in business services (GEM, 2016). For comparison, 22.54% of early-stage US entrepreneurs operate in business services, and the global average is ~18% (GEM, 2016; GEM, 2018). According to GEM, Finland scores 3.13 of 5 points for access to entrepreneurial finance; the US scores 3.57, and the global average is 2.53 (GEM, 2016, 2018). The World Bank (2019) ranked Finland 31st in ease of starting a business in 2019, compared with the US ranking of 55th. In terms of labor flexibility, Finland was ranked 17th in the world in 2013 (OECD, 2020).

[5]We identify founders using additional individual-level data obtained from the Finnish Patent and Registration Office (PRH). The PRH dataset contains comprehensive listings of board members, CEOs, and owners of Finnish limited liability companies, irrespective of whether they receive compensation. Finnish law stipulates that changes in these roles must be reported to the PRH without delay.

[6]Public and nonprofit sector includes the following industries: utilities (NACE, 2002, pp. 40–42); research institutes and independent research units (NACE, 2002, p. 73); public administration and defense (NACE, 2002, p. 75), public education units (NACE, 2002, p. 80), activities of other organizations (NACE, 2002, p. 91), and extraterritorial organizations and bodies (NACE, 2002,p. 98). Commodity industries include primary production (NACE 2002:1–5), mining and quarrying (NACE 2002:10–14), and tobacco products (NACE, 2002, p. 16).

[7]When applying these criteria, we exclude real estate (NACE, 2002, p. 70), which is especially susceptible to the concern that individuals may start multiple companies for tax purposes—that is, to manage their personal property portfolio rather than actively grow a real estate business.

[8]The data provide the 2002 Finnish Standard Industrial Classification (Toimialaluokitus, 2002), which is equivalent to the NACE 2002 (also known as NACE Rev. 2), the European Union classification of economic activities.

startups, which may include firms that changed legal form, merging firms, and divested divisions. Firms omitted for this reason constitute ~10.8% of the full sample. To ensure that we do not include any nongenuine startups with abnormal growth patterns, we remove outliers by trimming the main sample at the 98th percentile. Removing the largest startups reduces the number of employees for a first-year startup from 41 to 19. For robustness, we present the main results with the 95th percentile (see the Supporting information), and the results are similar.

3.1 | Dependent variables

3.1.1 | Staff (per venture)

We measure staff at the venture level. Our annual and monthly measures of staff are the venture's number of staff employed at the end of the year and the end of the month, respectively. In analyses using skill transferability as the dependent variable, the staff measure is a control to account for any potential differences in the level of skill transferability that are driven by the differences in the number of staff between standalone and portfolio ventures.

3.1.2 | Skill transferability (per venture)

To measure cross-industry skill transferability, we follow the approach of Starr et al. (2018). The measure assigns a value between 0 and 1 to each occupation–industry pair based on the estimated job availability for the occupation outside the focal industry. The estimate is calculated for each occupation–industry pair by dividing the share of employees of an occupation in the focal industry by the number of total employees in the occupation. The variable is calculated by subtracting this ratio from 1. Thus, the higher the value of the measure, the more likely the employee within a given occupation and industry (i.e., for a given occupation–industry pair) is to have opportunities outside the focal industry (i.e., the higher the skill transferability). Conversely, occupation–industry pairs with a low value of the measure flag jobs that require or develop skills that are highly industry specific and thus have lower cross-industry mobility. For example, a website designer working in finance can transfer their skills to another industry more easily than an aerospace engineer working in the aerospace industry (Starr et al., 2018).

To construct the measure of skill transferability, we track occupations with the two-digit Finnish Classification of Occupations 2010 code. This code is based on the International Standard Classification of Occupations (ISCO-08), compiled by the International Labour Organization and confirmed by the United Nations. We combine the two-digit occupation code with the two-digit TOL 2008 industry code, which is based on the European Union's classification of economic activities (NACE). After we combine the occupation and industry code to create a four-digit occupation–industry pair, we compute the skill transferability score and assign it to the individuals in our sample based on the four-digit occupation–industry pair. For our main analysis, to aggregate the skill transferability score per venture, we take the average skill transferability of all the employees of a venture.[9]

[9]Table A4 presents the occupation–industry pairs with highest and lowest skill transferability scores. The ventures in our main sample cover 55 industries and employ individuals from 43 different occupations. The main sample contains a total of 2288 occupation–industry pairs.

3.2 | Independent variables

3.2.1 | Portfolio venture

We measure redeployment potential with a dummy for any venture launched and operated by a portfolio entrepreneur. Portfolio entrepreneurs are founders who operate one or more active ventures in a given year. Consequently, any venture founded by an individual who concurrently owns another venture in a given year is considered a portfolio venture.[10] Whereas the potential for talent redeployment can be measured in multiple ways,[11] we leverage the distinction between ventures founded by a portfolio entrepreneur and ventures founded by a standalone entrepreneur. In doing so, we follow growing research, which indicates that unlike standalone ventures, portfolio ventures have the potential for redeployment of workers across businesses in case of failure (e.g., Parker, 2014; Santamaria, 2021). Thus, our main independent variable is equal to 1 when a venture is part of a portfolio of multiple ventures, and 0 otherwise. To avoid contamination of our results by branches of the same venture, we focus on portfolios of ventures that operate in multiple two-digit NACE Rev. 2 industries. Once a company is flagged as a portfolio venture, it is demarcated as such until it becomes the only venture in the portfolio. Our control group is standalone ventures. Standalone ventures may include novice entrepreneurship and serial entrepreneurship—that is, ventures created sequentially by the same entrepreneur (Carbonara et al., 2020).[12]

3.2.2 | Positive market signal

We proxy for a positive market signal with firm-level lagged annual revenue. Although high-growth ventures may prioritize other performance indicators over revenue in the venture's early years, revenue is a frequent proxy for a positive market signal because sales increase when new ventures face greater market demand (Eggers & Song, 2015; Eesley & Roberts, 2012). For this measure, we take the natural logarithm of the previous year's annual revenue.

[10]The first step in operationalizing a portfolio venture involves identifying the entrepreneurs in our data. Using information from the Finnish Patent and Registration Office (PRH) and the financial statement panel, we consider individuals to be entrepreneurs when five criteria are met: they are (a) members of the board of directors at founding, (b) the first CEOs of their respective ventures at founding, (c) members of the board of directors at the end of the first active financial year, (d) CEOs of their respective ventures at the end of the first active financial year, and (e) among the owners of their respective ventures at founding. Our operationalization is thus consistent with prior research, which suggests that founders typically occupy the role of the first CEOs before they are potentially replaced by CEOs that investors prefer (Wasserman, 2003). After we identify founders, the second step involves identifying companies owned by the same founder in a given year. Founders can simultaneously own more than one venture if they launch two or more companies in the same year or they start a new firm when they already own one or more ventures. We consider both of these cases to be ventures.

[11]For example, pivoting or strategic reorientation may provide a redeployment option for any entrepreneur (Kirtley & O'Mahony, 2023). However, recent research suggests that these events are relatively infrequent (see Kirtley & O'Mahony, 2023).

[12]Periods when portfolio ventures do not belong to a portfolio—that is, when the founder has exited the other ventures in the portfolio—are removed from the control group.

3.3 | Analytical strategy: Matching

Any correlation between portfolio venture status and hiring strategy could be spurious if unobserved or difficult-to-control-for confounders are correlated with both our treatment and our outcomes. To mitigate the challenge of nonrandom assignment into portfolio entrepreneurship, we implement the nonparametric method of coarsened exact matching (CEM) to mitigate venture-level and entrepreneur-level differences across portfolio and standalone ventures (Iacus et al., 2012). While the CEM approach cannot account for the potential influence of unobserved confounders, it nevertheless helps balance observed covariates across treatment and control groups without relying on the assumptions about the functional form. It also reduces the sensitivity of our analyses to outlier observations and reduces venture-level differences in the probability of belonging to a portfolio. We thus match portfolio ventures and standalones on key first-year observable characteristics.

Table 1 presents descriptive statistics for the key variables in the pre- and postmatching sample. The variables used in the CEM can be found under "Variables used in CEM" and include entrepreneur's hometown (Metropolitan), entrepreneur's personal income (Personal income), entrepreneur's level of education (Years of education), venture's revenue in first year (Revenue), and venture's capital employed in first year (Capital employed). The variables under "Controls not used in CEM" are employee averages at the venture level. The variables refer to first-year characteristics of ventures with at least one employee. In the pre-matching sample, standalone and portfolio ventures are similar in employees' main characteristics (Table 1A). Employees earn a median salary of roughly €30,000, have ∼13.5 years of education (equivalent to 1.5 years of higher education), and are approximately aged around 35 years. Standalone and portfolio entrepreneurs have ∼14 years of education, but portfolio entrepreneurs tend to be wealthier. 27% of both portfolio entrepreneurs and standalone entrepreneurs live in the Helsinki metropolitan area. The two groups differ in their first-year venture sizes: portfolio ventures earn higher first-year revenue and use more capital. Thus, we match ventures on the relevant characteristics to obtain a more balanced sample.

The number of first-year venture observations ("Ventures") at the annual level can be found on the last row of Table 1A,B. The matched sample has 655 first-year venture observations: 13% are portfolio ventures, and 87% are standalone ventures. As shown in Table 1B, CEM markedly improves the covariate balance between the two groups, with only minor differences persisting. On average, portfolio ventures use capital worth €96,540, compared with €64,227 for standalone ventures. Average years of education are 14.18 for portfolio entrepreneurs and 13.40 for standalone entrepreneurs. Annual revenue is roughly €187,000 for portfolio ventures and €152,000 for standalone ventures. Portfolio entrepreneurs have a personal income of ∼€63,000, compared with €41,000 for standalone entrepreneurs. Portfolio entrepreneurs operate in the Helsinki metropolitan area 20% of the time, whereas standalone entrepreneurs operate in this area 13% of the time. These differences are roughly equivalent when CEM weights are introduced in the analysis, as suggested by the *p*-values in Table 1.[13] Correlations between the variables are reported in Table A1.

[13]The *p*-values are from a *t*-test of the difference between portfolio and standalone ventures, with each venture in the sample having a specific CEM weight applied. Therefore, the *t*-test is not directly linked to the mean values presented in the table.

TABLE 1 Descriptive statistics for full and matched samples (first-year venture characteristics).

	Portfolio ventures		Standalone ventures		*t*-test
	Mean	**SD**	**Mean**	**SD**	***p*-Value**
Panel A: Full sample					No CEM weights
Variables used in CEM					
Metropolitan	0.27	0.45	0.27	0.44	0.92
Personal income	74,667	69,927	47,477	69,794	0.00
Years of education	14.48	2.62	14.16	2.57	0.22
Revenue	445,911	786,065	227,021	573,187	0.00
Capital employed	888,862	6,536,892	114,890	343,562	0.00
Controls not used in CEM					
Employee median wage	29,654	15,906	26,402	18,983	0.07
Employee average years of education	13.52	1.76	13.40	1.98	0.52
Employee average age	34.56	8.60	35.29	9.63	0.42
Dependent variables					
Staff	1.75	2.68	1.39	2.25	
Skill transferability	0.83	0.20	0.81	0.21	
Ventures	114		5946		
Panel B: Matched sample					CEM weights
Variables used in CEM					
Metropolitan	0.20	0.40	0.13	0.34	0.47
Personal income	63,108	49,165	41,434	32,359	0.26
Years of Education	14.18	2.53	13.40	2.10	0.15
Revenue	186,628	239,305	151,869	162,395	0.60
Capital employed	96,540	135,252	64,227	83,527	0.59
Controls not used in CEM					
Employee median wage	28,232	15,827	25,109	17,432	0.67
Employee average years of education	13.44	1.75	13.15	1.73	0.72
Employee average age	34.04	8.48	34.68	9.60	0.14
Dependent variables					
Staff	1.38	2.15	1.32	2.13	
Skill transferability	0.81	0.22	0.82	0.20	
Ventures	74		581		

Note: In the final column, *p*-values are from a *t*-test between ventures of portfolio and standalone entrepreneurs, with each venture in the sample having a specific CEM weight applied to it. Therefore, the *t*-test is not directly linked to the mean values presented in the table.

Abbreviation: CEM, coarsened exact matching.

4 | EMPIRICAL ANALYSIS

4.1 | Nonparametric analysis

We begin our analysis with a simple visual representation of the entrepreneurs' hiring strategies. Figures 1 and 2 visualize our main findings related to the hiring strategies of ventured initiated by standalone and portfolio founders. First, Figure 1 presents the month-end average number of employees hired for standalone and portfolio ventures in our matched sample in their first 5 years of operation. On average, founders of portfolio ventures start with more employees (5.0) than founders of standalone ventures (3.1), but this difference narrows over time. Whereas the average number of employees rises steadily to ~3.9 in the fifth year for standalone ventures, it decreases to 4.8 employees for portfolio ventures. As hypothesized, standalone founders adopt more conservative hiring strategies, incrementally increasing the number of employees as their revenues grow. Conversely, founders of portfolio ventures are more aggressive in the initial years but eventually readjust their staff when facing overcapacity. This gradual adjustment of staff among portfolio founders is also noteworthy because it helps alleviate the concern that portfolio founders are of higher quality than standalone founders.

Figure 2 displays the average skill transferability of portfolio and standalone ventures in our matched sample over time. In line with our theoretical framework, employees hired by founders of portfolio ventures display greater skill transferability at every point in time.

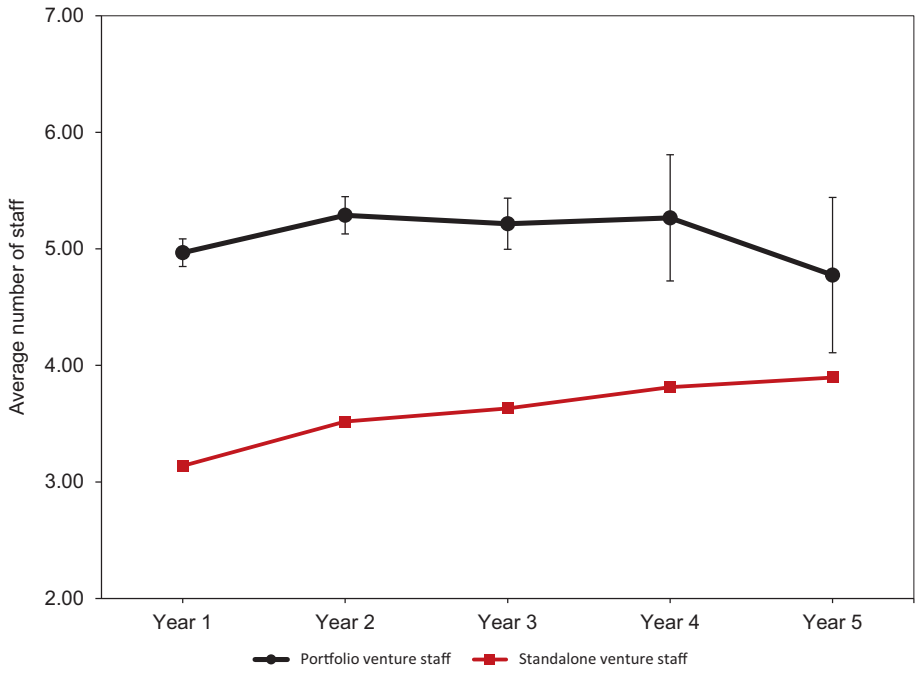

FIGURE 1 Average number of staff over time for ventures of standalone and portfolio entrepreneurs. Note that the error bars display the 95% confidence intervals. The confidence intervals for standalone ventures are not visible because they are too narrow. The observations represent the average month-end number of employees by venture age.

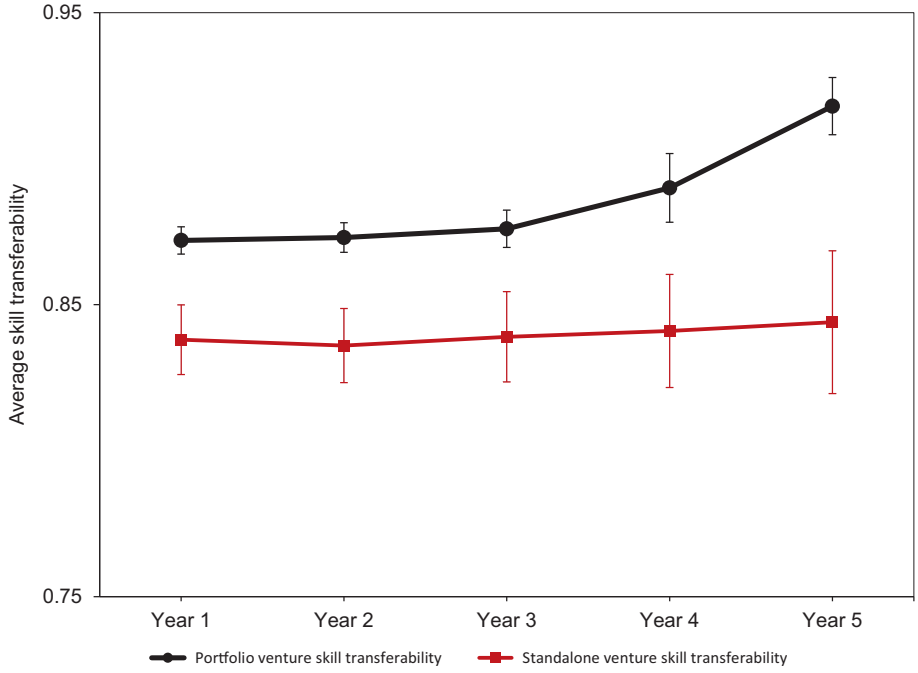

FIGURE 2 Average skill transferability over time for ventures of standalone and portfolio entrepreneurs. Note that error bars correspond to the 95% confidence intervals. The confidence intervals for standalone ventures are not visible because they are too narrow.

4.2 | Parametric analysis results

To examine the differences in the number of new hires (Hypothesis 1), we estimated an ordinary least squares (OLS) specification with standard errors clustered at the venture level. We report our results separately for ventures aged from 1 to 5 years. Because the variable *Staff* is measured by small integer values (e.g., 1, 2, 3), we also estimated a (cross-sectional) Poisson regression as an alternative specification. The dependent variable is the same as in the OLS specification: the number of employees at the end of the year. Table 2 presents the results for both specifications. Our analysis focuses on the venture-year or venture-month observations with at least one employee. However, our results remain consistent when the analysis includes ventures without employees. As given in Table 2, the coefficient of *Portfolio Venture* is positive in all early years, supporting Hypothesis 1. The Poisson regression reveals that founders of portfolio ventures hire 14% more employees per venture in the first year (p-value = .078) than founders of standalone ventures. The difference increases to nearly 37% among 3-year-old ventures (p-value < 0.01) and drops to zero in the fifth year. Overall, these results provide evidence that ventures started by portfolio founders deploy more labor by initially hiring more employees per venture.

Table 3 presents estimates from an OLS specification testing the proposed relationship between portfolio ventures and staff skill transferability (Hypothesis 2). We control for the number of employees because our dependent variable can be correlated with the overall venture size. The coefficient of *Portfolio Venture* is positive in all specifications except for first-year ventures (Model 1). *Staff Skill Transferability* is .03–.16 points higher for the portfolio ventures than for standalone ventures (p-value < .01). The results are consistent irrespective of whether we control for the total number of employees. These estimates support Hypothesis 2, which

TABLE 2 Difference in the number of staff between ventures of standalone and portfolio entrepreneurs over the first 5 years (Hypothesis 1): OLS and Poisson regression models.

Venture age	OLS					Poisson				
Dependent variable	Number of staff					Number of staff (EOY)				
Variables	Year 1 (1)	Year 2 (2)	Year 3 (3)	Year 4 (4)	Year 5 (5)	Year 1 (6)	Year 2 (7)	Year 3 (8)	Year 4 (9)	Year 5 (10)
Portfolio venture	0.481 (0.055)	0.469 (0.060)	0.511 (0.070)	0.438 (0.066)	0.501 (0.063)	0.134 (0.076)	0.232 (0.071)	0.313 (0.083)	0.029 (0.114)	−0.047 (0.148)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations	370	491	429	356	284	370	491	429	356	284
R^2	0.157	0.143	0.115	0.159	0.185	N/A	N/A	N/A	N/A	N/A

Note: Standard errors in parentheses (clustered for OLS). Standard errors, shown in parentheses, are clustered at the venture level. The observations from year to year vary depending on how many ventures in the matched sample employed at least one worker. Results remain consistent when the analysis includes ventures without employees. The main dependent variable (Models 1– 5) is the average monthly number of staff. Number of Staff (EOY) is the number of staff at the end of the year.
Abbreviation: FE, fixed effects; OLS, ordinary least squares.

TABLE 3 Difference in staff skill transferability between ventures of standalone and portfolio entrepreneurs over the first 5 years (Hypothesis 2).

Dependent variable	Skill transferability				
Venture age	Year 1	Year 2	Year 3	Year 4	Year 5
Variables	(1)	(2)	(3)	(4)	(5)
Portfolio venture	0.003 (0.003)	0.034 (0.004)	0.095 (0.005)	0.163 (0.009)	0.142 (0.007)
Number of staff	−0.001 (0.000)	0.005 (0.000)	0.008 (0.000)	0.007 (0.000)	0.002 (0.000)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of observations	232	321	295	243	189
R-squared	0.552	0.523	0.506	0.674	0.712

Note: Clustered standard errors in parentheses. Standard errors, shown in parentheses, are clustered at the venture level. The observations from year to year vary depending on how many ventures in the matched sample employed at least one worker. Results remain consistent when the analysis includes ventures without employees.
Abbreviation: FE, fixed effects.

suggests that founders of portfolio ventures hire, on average, employees with more transferable skills than do founders standalone ventures.

4.3 | Mechanism tests: Response to positive market signal and labor market rigidity

As the next step, we examine external factors affecting the option value of redeployment for portfolio entrepreneurs.

4.3.1 | Positive market signal

Table 4 presents estimates from an OLS specification similar to our main specification but with a dynamic element, testing the relationship between venture type and the response to positive market signals. In this analysis, the coefficient of interest is the interaction between *Portfolio* and the *Lagged Venture Log-Revenue* (mean = 5 and SD = 1.77). We exclude the first year from the analysis because lagged values cannot be obtained for that year. As expected, revenue growth at $t - 1$ encourages hiring at t for all entrepreneurs. However, this relationship is weaker or even close to zero for portfolio entrepreneurs. Results for Models 1–4 show that a 50% increase in standalone revenue at $t - 1$ increases standalone staff at t between roughly 3 and 5 U ($p < .01$). In contrast, the effect of an increase in a portfolio venture's revenue on hiring is much smaller in Years 2–4, as indicated by the negative coefficient of the interaction between *Portfolio Venture* and lagged revenue. For example, Model 1 suggests that a 50% increase in portfolio venture revenue at $t - 1$ will increase staff at t by only an average of 1.4 U. These results are in line with our theory and Hypothesis 3, which suggests that portfolio entrepreneurs preemptively hire more employees at the outset and hence their hiring is less responsive to positive market signals.

TABLE 4 Difference in hiring in response to positive market signal between ventures of standalone and portfolio entrepreneurs over the first 5 years (Hypothesis 3).

Dependent variable	Number of Staff			
Venture age	Year 2	Year 3	Year 4	Year 5
Variables	(1)	(2)	(3)	(4)
Portfolio venture	1.146 (0.098)	1.177 (0.081)	−0.331 (0.100)	0.435 (0.095)
Lagged revenue	1.535 (0.034)	1.944 (0.045)	1.830 (0.054)	2.336 (0.042)
Portfolio venture × Lagged revenue	−0.859 (0.109)	−0.830 (0.104)	−0.336 (0.125)	−0.031 (0.119)
Year FE	Yes	Yes	Yes	Yes
Venture age FE	No	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No. of observations	278	371	327	256
R^2-squared	0.245	0.354	0.417	0.451

Note: Clustered standard errors in parentheses. We exclude the first year from the analysis because lagged values cannot be obtained for the first year. Standard errors, shown in parentheses, are clustered at the venture level. The observations from year to year vary depending on how many ventures in the matched sample employed at least one worker. Results remain consistent when the analysis includes ventures without employees. The dependent variable is the average monthly number of staff.
Abbreviation: FE, fixed effects.

4.3.2 | Reduction in labor rigidity

Factors that are unobserved or not accounted for by our matching approach could drive selection into portfolio versus standalone ventures. To alleviate selection further and provide additional causal evidence for resource redeployment, we leverage a plausibly exogenous shock affecting labor market rigidity in Finland. As discussed in the theory section, when the labor market becomes more flexible, allowing entrepreneurs to hire and terminate more easily, internal labor redeployment in portfolio ventures becomes less relevant for hiring decisions. Hence, if the redeployment option drives differences in hiring strategies across portfolio and standalone ventures, such a gap will decrease as labor market rigidity declines. In contrast, if our observed effects reflect selection based on founders' individual traits, we would expect these differences to persist.

Our plausibly exogenous reduction in labor market rigidity comes from Employment and Growth Agreement (Työllisyys-ja kasvusopimus) signed by the Finnish government and labor unions in 2013. The agreement, which covered 93% of the Finnish labor force (Confederation of Finnish Industries, 2013; The Finnish Confederation of Professionals, 2013) relaxed Finland's rigid labor laws that made it difficult for employers to dismiss workers and increased the cost of new hires. Following the agreement, labor market rigidity decreased because employers could leverage various government programs to hire and terminate more easily. For example, after signing the agreement, employers could hire students and recent graduates for temporary positions (Confederation of Finnish Industries, 2013). Important for our purpose, the reform's adoption was staggered over time and across industries, making it unlikely that the enactment was associated with our outcomes of interest. Rather, the previous collective agreement's expiration date randomly determined the timing (and the industry level) of the new agreement's implementation. Collective agreements usually cover 12-, 24-, or 36-month periods, with an

expiration date set at the time of signing.[14] Therefore, it is reasonable to assume that the timing and order of adoption across industries are exogenous with respect to our outcome: the differences in hiring strategies between portfolio and nonportfolio ventures. Table A2 lists the industries where the Employment and Growth Agreement was adopted, the corresponding labor unions, and the year and month when the previous collective agreement expired, leading to the new agreement taking effect.

To estimate the effect of the agreement on hiring strategies (i.e., employee numbers and employee skill transferability) between portfolio and standalone ventures, we use a difference-in-differences estimator based on the treatments listed in Table A2. Our approach follows Bertrand and Mullainathan's (2003) application of the difference-in-differences methodology in the presence of staggered treatments at the industry level.[15] We estimate regressions with employee numbers and skill transferability as the outcome variables:

$$Y_{st} = \begin{aligned} &\alpha_t + \alpha_m + \alpha_a + \alpha_i + \alpha_t \times \alpha_i + \alpha_m \times \alpha_i + \beta_1 \times NewAgreement_{it} + \beta_2 \\ &\times PortfolioVenture_{st} + \beta_3\, NewAgreement_{it} \times PortfolioVenture_{st} + X_{st} + \varepsilon, \end{aligned}$$

where t indexes years; m indexes month; a indexes venture age; i indexes industry; s indexes venture; and α_t, α_m, α_a, α_i, $\alpha_t \times \alpha_i$, and $\alpha_m \times \alpha_i$ are year, month, age, industry, industry-year and industry-month fixed effects, respectively. Our models include month-fixed effects (one for each month from January to December) and their interaction with industry to account for seasonal industry-related fluctuations. Because the new agreement's adoption is staggered by month, we use month-level data in our specification to model the timing of our shock more precisely. Our estimation window ranges from 12 months before the agreement to 36 months after the agreement.[16] Because we are interested in estimating the policy's effect on new ventures' hiring

[14]For example, the collective agreement that incorporated the Employment and Growth Agreement for the hotel and restaurant industry took effect on May 1, 2014. This start date was determined by the end date of the previous collective agreement, for which the expiration date was set at the time of signing in 2012. The 2012 collective agreement for the hotel and restaurant industry covered the period April 1, 2012–April 30, 2014. In turn, the start date for the 2012 collective agreement was determined by the expiration date of the 2010 collective agreement, which covered the period April 1, 2010–March 31, 2012.

[15]Our methodology can be described with a simple example. Suppose we want to measure the effect of the November 2013 adoption of the new collective agreement on hiring strategy in the IT sector. We would compute the pre-November 2013 and post-November 2013 difference in hiring strategy for ventures operating in the IT sector (a "treated industry"). However, other events occurring around November 2013 may have influenced ventures' hiring strategies. For example, an economy-wide boom may have enhanced employers' ability to hire more workers or workers with more skill transferability. To account for such contemporaneous effects, we use as a control group any industry that had not adopted the agreement by November 2013, and we compute the corresponding pre-November 2013 versus post-November 2013 difference in hiring strategy. Computing the difference between these two differences provides an estimate of the effect of the IT sector's November 2013 adoption of the Employment and Growth Agreement reform on new ventures' hiring strategy, while controlling for contemporaneous changes in such a gap that might be due to changes in broad economic conditions. The difference between this example and our specification is that the latter accounts for the staggered timing of the implementation of the new collective agreement over time and across industries. Hence, the composition of both the treatment and control groups changes as more industries become progressively "treated."

[16]Because the minimum agreement period was 12 months, investigating differences further back in time may be influenced by previous collective agreements. In addition, the Employment and Growth Agreement total term was 36 months, justifying our choice of 36 months after the agreement's adoption as the end of the estimation window.

TABLE 5 Effect of labor flexibility on the number of new hires in ventures of standalone and portfolio entrepreneurs (Hypothesis 4a).

Dependent variable	Number of staff				
Venture age	First 12 months	First 24 months	First 36 months	First 48 months	First 60 months
Variables	(1)	(2)	(3)	(4)	(5)
Portfolio venture	3.543 (0.144)	4.376 (0.157)	3.136 (0.120)	2.301 (0.133)	2.418 (0.153)
Labor reform	0.850 (0.086)	0.416 (0.064)	0.286 (0.027)	−0.032 (0.045)	0.197 (0.032)
Portfolio venture × Labor reform	−1.797 (0.133)	−2.299 (0.137)	−1.102 (0.084)	−0.795 (0.112)	−1.160 (0.129)
Industry-year FE	Yes	Yes	Yes	Yes	Yes
Industry-month FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Venture age FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of ventures	283	354	416	476	520
No. of observations	1611	3606	5492	7524	8680
R^2	0.285	0.233	0.201	0.172	0.179

Note: Clustered standard errors in parentheses. Our estimation window spans from 12 months before the labor reform to 36 months after the labor reform. We report our results separately for the employees hired in the first 12, 24, 36, 48, and 60 months of venture operation. Standard errors, shown in parentheses, are clustered at the industry level.
Abbreviation: FE, fixed effects.

strategies,[17] we focus exclusively on employees hired in the early years of venture life. Specifically, we report our results separately for employees hired in the first 12, 24, 36, 48, and 60 months of the venture. We also cluster standard errors at the treatment (industry) level. *NewAgreement* is a treatment dummy variable indicating the timing of adoption: it equals 1 if the venture-month observation is in an industry where the Employment and Growth Agreement had already taken effect. We estimate the heterogeneous treatment effect by interacting *NewAgreement* and*PortfolioVenture*. The main coefficient of interest is therefore the interaction term, *NewAgreement* × *PortfolioVenture*. We expect differences in hiring strategies between portfolio and standalone ventures to subside after the adoption of the Employment and Growth Agreement, given that labor market rigidity declines. Hypotheses 4a and 4b will be supported if the sign of the coefficient of interest, β_3, is opposite that of β_2, suggesting that the regulatory reform decreased the hiring strategy difference between portfolio and standalone ventures.

Table 5 presents results estimated using an OLS specification to assess the proposed difference in the number of new hires in portfolio versus standalone ventures after the decrease in labor rigidity. We report our results separately for the employees hired in the first 12, 24, 36, 48, and 60 months of venture operation. As expected, the main effect of *Portfolio Venture* is positive

[17]The dependent variable (Y_{st}) is *Staff* (Hypothesis 4a) or *Skill Transferability* (Hypothesis 4b). X_{st} includes ln(*Staff* + 1) for Hypothesis 4b.

TABLE 6 Effect of labor flexibility on difference in skill transferability between ventures of standalone and portfolio entrepreneurs (Hypothesis 4b).

Dependent variable	Skill transferability				
Venture age	First 12 months	First 24 months	First 36 months	First 48 months	First 60 months
Variables	(1)	(2)	(3)	(4)	(5)
Portfolio venture	0.066 (0.009)	0.106 (0.007)	0.086 (0.007)	0.077 (0.007)	0.063 (0.006)
Labor reform	0.012 (0.003)	−0.008 (0.001)	−0.013 (0.001)	−0.016 (0.001)	−0.017 (0.001)
Portfolio venture × labor reform	−0.016 (0.009)	−0.061 (0.008)	−0.035 (0.006)	−0.0073 (0.0036)	0.017 (0.002)
Number of staff	−0.004 (0.000)	−0.001 (0.000)	0.000 (0.000)	0.001 (0.000)	0.001 (0.000)
Industry-year FE	Yes	Yes	Yes	Yes	Yes
Industry-month FE	Yes	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Venture age FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
No. of ventures	233	302	360	413	457
No. of observations	1523	3449	5274	6957	8317
R^2	0.690	0.610	0.581	0.595	0.609

Note: Clustered standard errors in parentheses. Our estimation window spans from 12 months before the labor reform to 36 months after the labor reform. We report our results separately for the employees hired in the first 12, 24, 36, 48, and 60 months of venture life. Standard errors, shown in parentheses, are clustered at the industry level.
Abbreviation: FE, fixed effects.

in all specifications: before the labor market reform, portfolio entrepreneurs deployed more labor than standalone ventures. The main effect of *Labor Reform* is also mostly positive: after the reduction in labor market rigidity, standalone ventures deployed more labor than before. Model 1 suggests that standalone ventures increased their staff by roughly one unit after the policy (p-value < .01). The negative coefficient of the interaction between *Portfolio Venture* and *Labor Reform* suggests that the hiring gap between portfolio and standalone ventures narrowed after the agreement's enactment. Results for Model 1 show that, whereas portfolio ventures hired up to 3.5 more employees than standalone ventures in the first 12 months, they hired only 2 more employees than standalone ventures following the new agreement (p-value < .01).

Table 6 presents estimates from the OLS specification testing the predicted difference in employees' skill transferability for portfolio and standalone ventures after a decrease in labor rigidity. As expected, the main effect of *Portfolio Venture* is positive in all specifications: portfolio ventures hired employees with a more transferable skill set before the agreement took effect. The *Labor Reform* coefficient is less consistent across time frames, appearing negative for all but the first year of venture operation. Thus, the overall policy effect on skill transferability is less clear. The interaction between *Portfolio Venture* and *Labor Reform* is negative in all specifications except for Model 5 (ventures in their first 60 months). In fact, before the new agreement, *Skill Transferability* was 0.066 points higher for employees hired by portfolio ventures in the first year of operation than for employees hired by standalone ventures, as measured by our index (p-value < .001). However, Model 1 shows that this difference decreases to 0.05 points

after the new agreement (p-value = .053). These results support the prediction that the decrease in labor rigidity mitigated the difference between standalone and portfolio ventures in employees' skill transferability.

5 | ADDITIONAL ANALYSES OF REDEPLOYMENT

In this section, we provide additional empirical evidence on worker redeployment within the portfolio by focusing on employee mobility and portfolio relatedness.

5.1 | Measuring labor redeployment

We provide evidence for the proposed mechanisms by more directly probing employee mobility outside and within a new venture's portfolio. First, we verify our theoretical assumption that portfolio entrepreneurs redeploy employees from one venture to another. To that end, we assess whether employees from portfolio ventures are more likely to move to other ventures in the portfolio rather than moving to an outside employer. In particular, we compare the expected and actual employment paths of employees from portfolio ventures that exited the portfolio between 2007 and 2017. We first compute the baseline probability of an employee from an existing portfolio venture joining another venture in the same portfolio, rather than joining another employer. For the baseline rate, we use the ratio of the total number of employees in a portfolio following the venture's exit to the number of all employees in the same industry and city following the venture's exit.[18] Second, we use this ratio to simulate new placements for employees of exiting portfolio ventures.[19] Finally, we identify moves within each portfolio. The observed rate is more than three times higher than the average baseline rate for employee moves to join other ventures in the same portfolio when a new employer was randomly chosen based on size (see Figure A1).

We next compare the skill transferability of the employees moving within an entrepreneur's portfolio of ventures with that of employees moving outside the portfolio. Our theory suggests that employees who move within the portfolio will possess greater skill transferability than employees who move outside the portfolio. In fact, this is what we find. Figure A2 shows that the average skill transferability of employees who move within the portfolio is about 10 index points higher than that of employees who move outside the portfolio. Overall, these analyses validate the theorized mechanism: portfolio entrepreneurs redeploy employees with transferable skills to other ventures in their portfolios.

5.2 | Redeployment and portfolio relatedness

In this additional analysis, we consider the extent to which new ventures in a portfolio are related and how this might affect hiring strategies. Although employee skill transferability can

[18]For example, if an entrepreneur's other portfolio ventures employ a total of 10 people in the year following the focal venture's exit, and a total of 1000 employees work in the same industry and city of the exiting venture in the following year, an employee's probability of joining another venture in a portfolio is .01.

[19]Based on the ratio, we estimate this expected placement by generating a random binomial number 1000 times for each of the 118 identified individuals of exiting portfolio ventures.

facilitate redeployment in portfolio ventures, transferability often comes at the expense of the value that an employer can initially capture from the employees' specialized human capital (Becker, 1975; Jovanovic, 1979; Lazear & Oyer, 2012). Thus, portfolio entrepreneurs will hire new employees with transferrable skills only when the cost of redeployment cannot be reduced in other ways.

An alternative way for businesses in a portfolio to reduce the cost of resource redeployment, including the transfer of human capital, is to operate in related or similar industries (Lieberman et al., 2017; Sakhartov & Folta, 2014; Sohl & Folta, 2021a, 2021b). When ventures in a portfolio operate in the same or similar industries, internal worker transfers become easier and less costly because employee roles and functions are less distinct across related businesses. Therefore, the tendency of portfolio entrepreneurs to hire employees with highly transferable skills will be mitigated when the interindustry relatedness in the portfolio intensifies. We measure relatedness using general interindustry relatedness index of Bryce and Winter (2009). For the analysis, we create dummy variables for portfolio ventures with relatedness scores in the top 50th, 25th, and 10th percentiles, compared with other portfolio ventures in their respective industries. Table A3 presents that portfolio relatedness substantially reduces the need to rely on staff skill transferability, consistent with the notion that benefits to transferrable skills are mitigated in related ventures.

6 | ROBUSTNESS CHECKS

For robustness, we first, establish the relevance and exogeneity of our labor market reform. We then show that our results for the proposed mechanism on labor rigidity are not driven by pre-existing trends in the differences in staff and staff skill transferability. Next, we show that our results are not biased by the effect of early-treated industries on the later treated industries (Goodman-Bacon, 2021). Finally, we demonstrate our results are robust to excluding from our sample industries that we considered to be irrelevant to our theory or that had poor data. Supporting information provides a detailed description of these additional analyses and reports the results.

7 | DISCUSSION

Strategy research highlights the importance of human capital for firm performance and long-term competitive advantage in both new ventures and established firms (e.g., Campbell et al., 2012; Carnahan & Somaya, 2013; Coff, 1997; Dierickx & Cool, 1989; Hall, 1993). Yet, despite the extreme uncertainty under which entrepreneurs often make decisions about when and how to hire, the extant research has shed little light on such choices. This study investigates talent acquisition strategies, focusing on a key dilemma founders face: whether to make minimal initial minimal investments in human capital or hire ahead of market demand. While entrepreneurship theories posit that starting with small experiments may be most beneficial when demand is unproven (e.g., Ewens et al., 2018; Kerr et al., 2014; Thomke, 2003), strategy research on choice under uncertainty suggests that upfront commitment has considerable advantages (e.g., Dixit & Pindyck, 1994; Ghemawat, 1991; Gilbert & Lieberman, 1987).

Our study reconciles this theoretical tension by identifying the key contingency: the redeployability of human capital resources. Focusing on the distinction between portfolio and

standalone ventures—whereby the former offers the entrepreneur the option of withdrawing and transferring employees across ventures in a portfolio—we propose that different hiring strategies will emerge for entrepreneurs operating these two venture types. Portfolio entrepreneurs will leverage resource flexibility by hiring more employees early on but focusing on new hires with more transferrable skills. In contrast, standalone entrepreneurs will initially hire fewer employees, concentrating on hires with more specialized skills.

We test our predictions using registry data on the population of founders and their ventures in Finland between 2007 and 2017 and find support for our hypotheses. First, consistent with our predictions, our findings suggest that making small bets by hiring fewer employees is not the only strategy for startups. In cases where transferring resources across businesses at low cost is a viable option, such as in portfolio ventures, founders are more likely to commit resources from the start by hiring more intensively early on. In addition, we find that portfolio entrepreneurs focus on hiring employees with more transferrable skills.

Our findings also shed light on the mechanisms at work. Consistent with our theory of greater redeployment of human capital among the ventures of portfolio entrepreneurs, we observe that standalone entrepreneurs hire more employees in the early years upon receiving positive market signals, which reduce market demand uncertainty. Finally, as expected, we find that decreases in labor market rigidity, which lowers hiring and termination costs, narrows the initial disparities in hiring strategies between standalone and portfolio entrepreneurs. Overall, we find strong support for our predictions.

Given these findings, our study makes several key contributions. First, we extend the ample research on strategic human capital and contribute to the growing interest in talent acquisition within new ventures (e.g., Campero & Kacperczyk, 2020; Fairlie & Miranda, 2016; Ganco et al., 2019). Although prior studies have begun to examine factors that attract human capital in new ventures, they provide limited insight into how founders decide whether to hire ahead or behind demand. Our study addresses this gap by identifying a key theoretical contingency—employee redeployability—to reconcile the tension between entrepreneurship theories of experimentation (e.g., Ewens et al., 2018; Kerr et al., 2014; Thomke, 2003) and strategy research on decision making under uncertainty (e.g., Dixit & Pindyck, 1994; Gilbert & Lieberman, 1987). More generally, our research responds to recent calls to further unpack hiring strategies in young and small firms, which remain surprisingly unexplored (Honoré & Ganco, 2020). Understanding talent acquisition strategies in new ventures extends the long-standing research on strategic human capital, which demonstrates the vital role of hires in developing and maintaining a firm's competitive advantage (e.g., Chatain & Meyer-Doyle, 2017; Harris & Helfat, 1997; Mawdsley & Somaya, 2016; Starr et al., 2018). Building on these findings, future work could expand beyond talent acquisition to assess how the option to redeploy resources may influence other strategies in new ventures, including investments in product development or R&D expenditure. Consequently, future work may apply the resource redeployment perspective to unpack a host of strategic choices within startups.

Second, our study adds to the growing body of work on inducements and determinants of resource redeployment (e.g., Levinthal & Wu, 2010; Sakhartov & Folta, 2015) by highlighting the importance of firm attributes, such as portfolio structure and employees' attributes, like skill transferability. While the extant research has frequently focused on the diversification of large, established firms as a crucial inducement for resource redeployment, including employee transfers (Feldman and Hernandez, 2022; Helfat & Eisenhardt, 2004), our study provides evidence of redeployment options, even within startups. At the same time, we find that the portfolio effect we document can be partially amplified by employee attributes that enable fungibility, such as transferrable

skills. Future research could investigate other firm and employee attributes that enhance resource redeployment options, facilitating the movement of resources across jobs or business units inside the firm more easily and inexpensively.

In addition, we extend the long-standing line of strategy work on decision-making under uncertainty (e.g., Chatain & Meyer-Doyle, 2017; Harris & Helfat, 1997; Mawdsley & Somaya, 2016; Starr et al., 2018) by integrating this research with the strategic human capital literature. Past studies have documented the value of implementing risk-reduction strategies when companies make investments under demand uncertainty (e.g., Belenzon et al., 2019; Ghemawat, 1991; Gilbert & Lieberman, 1987). By integrating these two research streams, we identify distinct risk-mitigation strategies in new ventures: one that relies on resource flexibility and the hiring of workers with transferrable skills, and another one that relies on size flexibility and the hiring of fewer workers in general.

Some limitations of this study are noteworthy. First, our research provides evidence for the redeployment of human capital across ventures of portfolio entrepreneurs, but future research could unpack in greater detail the processes that govern such redeployment. For example, single company studies or qualitative methods could reveal whether redeployed employees impose limited costs to founders, as theorized. Furthermore, future research may benefit from a more nuanced understanding of the occupational sorting of easily transferrable human capital. For example, researchers may want to investigate if workers with transferable skills are more likely to occupy managerial roles, acting as generalists within new ventures, or if they are placed in low-skilled and thus less critical jobs in a firm. One limitation of our study is that we focus only on new ventures founded in Finland. Our empirical findings reflect, at least to some extent, the specific nature of Finnish labor market institutions and founding processes, including relatively rigid labor markets, which tend to be more prevalent in Europe than in the United States. At the same time, the Finnish startup landscape is similar to that of many other developed countries, such as the United States, with its vibrant ecosystem and emphasis on high-growth and high-technology startups. Nevertheless, a fruitful avenue for future research would be to examine whether the relationships we find for portfolio and standalone entrepreneurs hold in other countries and other institutional contexts. In this regard, scholars may want to investigate how different institutional regimes regarding labor market flexibility influence founders' decisions to make large initial investments while refraining from hiring specialized human capital. Further, whereas we find evidence of the homogenizing role of the labor market reform, future research may want to further unpack the role of labor market flexibility in human capital redeployment. Future research may benefit from understanding how such reform affects portfolio ventures and whether such ventures have a lower or higher capability to anticipate regulatory changes.

Despite these limitations, our study provides valuable insights for managers and policymakers. From a practitioners' perspective, our findings suggest that talent acquisition strategies may significantly depend on the level of irreversibility of human capital investment and the related redeployment potential, or the number of ventures entrepreneurs operate simultaneously. From a policymakers' perspective, our results imply that policies that reduce labor market rigidity may enable founders of standalone ventures to overcome key constraints associated with limited resource redeployment and the high cost of exiting a failing business. This advantage may increase efficient worker–employee matching in startups, enhancing employers' willingness to hire talent at the outset. Estimating whether and when increasing labor market flexibility could result in startups' greater job creation is a relevant issue left for future research.

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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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REFERENCES

Abowd, J. M., & Kramarz, F. (2003). The costs of hiring and separations. *Labour Economics*, *10*(5), 499–530.

Acharya, V. V., Baghai, R. P., & Subramanian, K. V. (2014). Wrongful discharge laws and innovation. *The Review of Financial Studies*, *27*(1), 301–346.

Agarwal, R. (2019). Human enterprise. In Nyberg, A., & Moliterno, T. (Eds.), *Handbook of research on strategic human capital resources*. Edward Elgar Publishing.

Agarwal, R., Campbell, B. A., Franco, A., & Ganco, M. (2016). What do I take with me? The mediating effect of spin-out team size and tenure on the founder-firm performance relationship. *Academy of Management Journal*, *59*(3), 1060–1087.

Baert, C., Meuleman, M., Debruyne, M., & Wright, M. (2016). Portfolio entrepreneurship and resource orchestration. *Strategic Entrepreneurship Journal*, *10*(4), 346–370.

Becker, G. S. (1975). Investment in human capital: Effects on earnings. In *Human capital: A theoretical and empirical analysis, with special reference to education* (2nd ed., pp. 13–44). NBER.

Belenzon, S., Bennett, V. M., & Patacconi, A. (2019). Flexible production and entry: Institutional, technological, and organizational determinants. *Strategy Science*, *4*(3), 193–216.

Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. *Journal of Political Economy*, *111*(5), 1043–1075.

Blank, S. (2013). Why the lean start-up changes everything. *Harvard Business Review*. https://hbr.org/2013/05/why-the-lean-start-up-changes-everything

Bryce, D. J., & Winter, S. G. (2009). A general interindustry relatedness index. *Management Science*, *55*(9), 1570–1585.

Burton, M. D., Dahl, M. S., & Sorenson, O. (2018). Do start-ups pay less? *ILR Review*, *71*(5), 1179–1200.

Cahuc, P., & Malherbet, F. (2004). Unemployment compensation finance and labor market rigidity. *Journal of Public Economics*, *88*(3–4), 481–501.

Campbell, B. A., Coff, R., & Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review*, *37*(3), 376–395.

Campero, S., & Kacperczyk, A. O. (2020). Asymmetric gender homophily in the startup labor market. In *Employee Inter-and Intra-Firm Mobility: Taking Stock of What We Know, Identifying Novel Insights and Setting a Theoretical and Empirical Agenda* (pp. 329–359). Emerald Publishing Limited.

Carbonara, E., Tran, H. T., & Santarelli, E. (2020). Determinants of novice, portfolio, and serial entrepreneurship: An occupational choice approach. *Small Business Economics*, *55*(1), 123–151.

Carnahan, S., & Somaya, D. (2013). Alumni effects and relational advantage: The impact on outsourcing when a buyer hires employees from a supplier's competitors. *Academy of Management Journal*, *56*(6), 1578–1600.

Castanias, R. P., & Helfat, C. E. (1991). Managerial resources and rents. *Journal of management*, *17*(1), 155–171.

Chang, S.-J., & Matsumoto, Y. (2022). Dynamic resource redeployment in global semiconductor firms. *Strategic Management Journal*, *43*(2), 237–265. https://doi.org/10.1002/smj.3332

Chatain, O., & Meyer-Doyle, P. (2017). Alleviating managerial dilemmas in human-capital-intensive firms through incentives: Evidence from M&a legal advisors. *Strategic Management Journal*, *38*(2), 232–254.

Coff, R. W. (1997). Human assets and management dilemmas: Coping with hazards on the road to resource-based theory. *Academy of Management Review*, *22*(2), 374–402.

Confederation of Finnish Industries (Elinkeinoelämän keskusliitto). (2013). Työllisyys-ja kasvusopimus. https://www.sttk.fi/wp-content/uploads/sites/2/2013/10/ty%C3%B6llisyys_ja_kasvusopimus.pdf

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, *9*(5), 371–395.

DeSantola, A., & Gulati, R. (2017). Scaling: Organizing and growth in entrepreneurial ventures. *Academy of Management Annals*, *11*(2), 640–668.

Dickler, T. A., & Folta, T. B. (2020). Identifying internal markets for resource redeployment. *Strategic Management Journal*, *41*(13), 2341–2371.

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, *35*(12), 1504–1511.

Dixit, A. (1989). Entry and exit decisions under uncertainty. *Journal of Political Economy*, *97*(3), 620–638.

Dixit, A. K., & Pindyck, R. S. (1994). *Investment under uncertainty*. Princeton University Press.

Eesley, C. E., & Roberts, E. B. (2012). Are you experienced or are you talented? When does innate talent versus experience explain entrepreneurial performance? *Strategic Entrepreneurship Journal*, *6*(3), 207–219.

Eggers, J. P., & Song, L. (2015). Dealing with failure: Serial entrepreneurs and the costs of changing industries between ventures. *Academy of Management Journal*, *58*(6), 1785–1803.

Ewens, M., Nanda, R., & Rhodes-Kropf, M. (2018). Cost of experimentation and the evolution of venture capital. *Journal of Financial Economics*, *128*(3), 422–442.

Fairlie, R., & Miranda, J. (2016). Taking the leap: The determinants of entrepreneurs hiring their first employee. *Journal of Economics and Management Strategy*, *26*(1), 3–34.

Feldman, E. R., & Hernandez, E. (2022). Synergy in mergers and acquisitions: Typology, life cycles, and value. *Academy of Management Review*, *47*(4), 549–578.

Folta, T. B., Helfat, C. E., & Karim, S. (2016). Examining resource redeployment in multi-business firms. *Resource Redeployment and Corporate Strategy*, *35*, 1À17.

Fudenberg, D., & Tirole, J. (1983). Sequential bargaining with incomplete information. *The Review of Economic Studies*, *50*(2), 221–247.

Ganco, M., Honoré, F., & Raffiee, J. (2019). Entrepreneurial team assembly: Knowledge transfer, customer transfer, and matching models. In J. J. Reuer, S. F. Matusik, & J. Jones (Eds.), *Oxford Handbook of Collaboration and Entrepreneurship* (pp. 631–654). Oxford University Press.

Gans, J. S., Stern, S., & Wu, J. (2019). Foundations of entrepreneurial strategy. *Strategic Management Journal*, *40*(5), 736–756.

Ghemawat, P. (1991). *Commitment*. Simon and Schuster.

Gilbert, R. J., & Lieberman, M. (1987). Investment and coordination in oligopolistic industries. *The Rand Journal of Economics*, *18*, 17–33.

Giraudo, E., Rocha, V., & Grilli, L. (2019). We're hiring! Entrepreneur characteristics and talent sorting in innovative startups. In *Academy of Management Proceedings*. (vol. 2019, No. 1, p. 11507). Academy of Management.

Gjerløv-Juel, P., & Guenther, C. (2019). Early employment expansion and long-run survival: Examining employee turnover as a context factor. *Journal of Business Venturing*, *34*(1), 80–102.

Global Entrepreneurship Monitor. (2016). Economy profiles: Finland. https://www.gemconsortium.org/economy-profiles/finland

Global Entrepreneurship Monitor. (2018). Economy profiles: United States. https://www.gemconsortium.org/economy-profiles/united-states-2

Goodman-Bacon, A. (2021). Difference-in-differences with variation in treatment timing. *Journal of Econometrics*, *225*(2), 254–277.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, *17*(S2), 109–122.

Hall, R. (1993). A framework linking intangible resources and capabilities to sustainable competitive advantage. *Strategic Management Journal*, *14*(8), 607–618.

Harris, D., & Helfat, C. (1997). Specificity of CEO human capital and compensation. *Strategic Management Journal*, *18*(11), 895–920.

Helfat, C. E., & Eisenhardt, K. M. (2004). Inter-temporal economies of scope, organizational modularity, and the dynamics of diversification. *Strategic Management Journal*, *25*(13), 1217–1232.

Helfat, C. E., & Lieberman, M. B. (2002). The birth of capabilities: market entry and the importance of pre-history. *Industrial and corporate change*, *11*(4), 725–760.

Hitt, M. A., Ireland, R. D., Sirmon, D. G., & Trahms, C. A. (2011). Strategic entrepreneurship: Creating value for individuals, organizations, and society. *Academy of Management Perspectives*, *25*(2), 57–75.

Honoré, F., & Ganco, M. (2020). Entrepreneurial teams' acquisition of talent: Evidence from technology manufacturing industries using a two-sided approach. *Strategic Management Journal*, *44*, 141–170. https://doi.org/10.1002/smj.3127

Iacus, S. M., King, G., & Porro, G. (2012). Causal inference without balance checking: Coarsened exact matching. *Political Analysis*, *20*(1), 1–24.

Jovanovic, B. (1979). Job matching and the theory of turnover. *Journal of Political Economy*, *87*(5, Part 1), 972–990.

Kerr, W. R., Nanda, R., & Rhodes-Kropf, M. (2014). Entrepreneurship as experimentation. *Journal of Economic Perspectives*, *28*(3), 25–48.

Kirtley, J., & O'Mahony, S. (2023). What is a pivot? Explaining when and how entrepreneurial firms decide to make strategic change and pivot. *Strategic Management Journal*, *44*(1), 197–230.

Knight, F. H. (1921). *Risk, uncertainty and profit*. Houghton Mifflin.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, *3*(3), 383–397.

Kuhnen, C. M., & Oyer, P. (2016). Exploration for human capital: evidence from the MBA labor market. *Journal of Labor Economics*, *34*(S2), S255–S286.

Lazear, E. P. (2004). Balanced skills and entrepreneurship. *American Economic Review*, *94*(2), 208–211.

Lazear, E. P., & Oyer, P. (2012). 12. In *Personnel economics* (pp. 479–519). Princeton University Press.

Lee, S., & Kim, J.D., (2023). *When Do Startups Scale? Large-scale Evidence from Job Postings*. https://doi.org/10.2139/ssrn.4015530

Lechner, C., & Leyronas, C. (2009). Small-business group formation as an entrepreneurial development model. *Entrepreneurship Theory and Practice*, *33*(3), 645–667.

Levinthal, D. A., & Wu, B. (2010). Opportunity costs and non-scale free capabilities: Profit maximization, corporate scope, and profit margins. *Strategic Management Journal*, *31*(7), 780–801.

Lieberman, M. B., Lee, G. K., & Folta, T. B. (2017). Entry, exit, and the potential for resource redeployment. *Strategic Management Journal*, *38*(3), 526–544.

Loch, C. H., Terwiesch, C., & Thomke, S. (2001). Parallel and sequential testing of design alternatives. *Management Science*, *47*(5), 663–678.

Mackey, A. (2008). The effect of CEOs on firm performance. *Strategic Management Journal*, *29*(12), 1357–1367.

Masters, B., & Thiel, P. (2014). *Zero to one: notes on start ups, or how to build the future*. Random House.

Mawdsley, J. K., & Somaya, D. (2016). Employee mobility and organizational outcomes: An integrative conceptual framework and research agenda. *Journal of Management*, *42*(1), 85–113.

Morandi Stagni, R., Santalo, J., & Giarratana, M. S. (2020). Product-market competition and resource redeployment in multi-business firms. *Strategic Management Journal*, *41*(10), 1799–1836.

Nelson, R. R. (1961). Uncertainty, learning, and the economics of parallel research and development efforts. *The Review of Economics and Statistics*, *43*, 351–364.

OECD. (2020). Strictness of employment protection – individual and collective dismissals (regular contracts). https://stats.oecd.org/Index.aspx?DataSetCode=EPL_OV

Parker, S. C. (2014). Who become serial and portfolio entrepreneurs? *Small Business Economics*, *43*(4), 887–898.

Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford university press.

Phillips, J. M., & Gully, S. M. (2015). Multilevel and strategic recruiting: Where have we been, where can we go from here? *Journal of Management*, *41*(5), 1416–1445.

Picken, J. C. (2017). From startup to scalable enterprise: Laying the foundation. *Business Horizons*, *60*(5), 587–595.

Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multilevel model. *Academy of Management Review*, *36*(1), 127–150.

Ployhart, R. E., Nyberg, A. J., Reilly, G., & Maltarich, M. A. (2014). Human capital is dead; long live human capital resources! *Journal of Management*, *40*(2), 371–398.

Ries, E. (2011). *The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses*. Currency.

Roach, M., & Sauermann, H. (2015). Founder or joiner? The role of preferences and context in shaping different entrepreneurial interests. *Management Science*, *61*(9), 2160–2184.

Sakhartov, A. V., & Folta, T. B. (2014). Resource relatedness, redeployability, and firm value. *Strategic Management Journal*, *35*(12), 1781–1797.

Sakhartov, A. V., & Folta, T. B. (2015). Getting beyond relatedness as a driver of corporate value. *Strategic Management Journal*, *36*(13), 1939–1959.

Santamaria, S. (2021). Portfolio Entrepreneurs' behavior and performance: A resource redeployment perspective. *Management Science*, *68*, 333–354. https://doi.org/10.1287/mnsc.2020.3929

Sevcenko, V., & Ethiraj, S. (2018). How do firms appropriate value from employees with transferable skills? A study of the appropriation puzzle in actively managed mutual funds. *Organization Science*, *29*(5), 775–795.

Siepel, J., Cowling, M., & Coad, A. (2017). Non-founder human capital and the long-run growth and survival of high-tech ventures. *Technovation*, *59*, 34–43.

Snellman, K., & Younkin, P. (2021). Who's the boss? Evidence of job seeker bias from a field experiment. *Evidence of job seeker bias from a field experiment* (*February 14*, *2021*). Working paper.

Sohl, T., & Folta, T. B. (2021a). Declining markets, resource specificity, and redeployment decisions. *Strategic Management Review*, *2*(2), 391–412.

Sohl, T., & Folta, T. B. (2021b). Market exit and the potential for resource redeployment: Evidence from the global retail sector. *Strat Mgmt J.*, *42*, 2273–2293. https://doi.org/10.1002/smj.3285; discussion: adjustment costs.

Starr, E., Ganco, M., & Campbell, B. A. (2018). Strategic human capital management in the context of cross-industry and within-industry mobility frictions. *Strategic Management Journal*, *39*(8), 2226–2254.

Stewart, S. A., & Hoell, R. C. (2016). Hire someone like me, or hire someone I need: Entrepreneur identity and early-stage hiring in small firms. *Journal of Small Business and Entrepreneurship*, *28*(3), 187–201.

Stinchcombe, A. (1965). Organization-creating organizations. *Society*, *2*(2), 34–35.

The Finnish Confederation of Professionals (STTK). (2013). Keskitetyllä sopimuksella laaja kattavuus. https://www.sttk.fi/2013/10/26/keskitetylla-sopimuksella-laaja-kattavuus/

Thomke, S. H. (2003). *Experimentation matters: Unlocking the potential of new technologies for innovation*. Harvard Business Press.

Uzunca, B. (2018). A competence-based view of industry evolution: The impact of submarket convergence on incumbent–entrant dynamics. *Academy of Management Journal*, *61*(2), 738–768.

Wasmer, E. (2006). General versus specific skills in labor markets with search frictions and firing costs. *American Economic Review*, *96*(3), 811–831.

Wasserman, N. (2003). Founder-CEO succession and the paradox of entrepreneurial success. *Organization Science*, *14*(2), 149–172.

World Bank. (2019). Doing Business: Measuring Business Regulations. https://www.doingbusiness.org/en/data/exploretopics/starting-a-business

Wu, B. (2013). Opportunity costs, industry dynamics, and corporate diversification: Evidence from the cardiovascular medical device industry, 1976–2004. *Strategic Management Journal*, *34*(11), 1265–1287.

Wu, B., & Knott, A. M. (2006). Entrepreneurial risk and market entry. *Management Science*, *52*, 1315–1330.

Zuckerman, E. W. (1999). The categorical imperative: Securities analysts and the illegitimacy discount. *American journal of sociology*, *104*(5), 1398–1438.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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