

# Delegation, Attention Allocation, and Innovation in Entrepreneurial Ventures

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## Abstract

Despite growing recognition that organizational design can facilitate entrepreneurs' attention allocation to high-value activities that improve firm innovation, few studies have tested this theoretical insight. Guided by organizational structure and managerial frictions literature in innovation and entrepreneurship, we examine *how* and *why* shared decision rights affect innovation outcomes. In a representative survey of German entrepreneurs, delegation has a strong, robust, positive association with incremental innovation; evidence for alternative innovation outcomes or differential effects of delegation depth is limited. This relationship varies somewhat with incentives, employee, and founder ability, and is stronger in East Germany, where managerial frictions are larger. While delegation does not free up time for personal activities, it allows entrepreneurs to engage in a greater number of venture activities, especially crafting strategy, and perform them more intensely. Collectively, our findings imply delegation enhances innovation by facilitating entrepreneurs' attention allocation to critical managerial tasks, such as acquiring market and competitor insight or making growth and investment choices. By clarifying where the value of delegation resides and what activities founders prioritize, we highlight the importance of strategy in entrepreneurial ventures.

**JEL Classification:** J24, L23, M12, M21, M51.

**Keywords:** Entrepreneurship; innovation; delegation; task allocation; resource constraints; German SOEP.

# 1 Introduction

Entrepreneurial ventures face constant pressures to innovate, but achieving this key strategic goal often requires resources beyond entrepreneurs' limited endowments of time and knowledge.

Delegating responsibility to employees, a crucial entrepreneurial choice (Burton et al., 2019), can address these binding constraints by freeing up valuable founder attention to core strategic tasks and making superior use of employee skills. Yet, many small business owners refrain from delegation due to perceived agency costs and a preference for control: they often fail to consider that their own fixed managerial human capital can become an obstacle to growth and a 'drag on profitability' (Colombo and Grilli, 2013; Akcigit et al., 2021; Anderson and McKenzie, 2022; Lindquist and Vladasel, 2025) if it impairs innovation.

Despite an intellectual heritage going back to Chandler (1977), testing this straightforward intuition, especially among small firms, has been frustrated by limited data availability. Scholars have instead poured substantial effort into uncovering *when* firms delegate decision rights and *what* consequences decentralization has for innovation (Argyres and Silverman, 2004; Acemoglu et al., 2007; Leiponen and Helfat, 2010; Foss et al., 2015; Grimpe et al., 2019), rather than the precise mechanism through which they arise. Moreover, often extolled flat hierarchies may spur creativity, but hamper execution in high-tech ventures (Lee, 2022), while managing in 'founder mode' appeals to many entrepreneurs and executives. Founder and CEO Brian Chesky found the advice to 'hire good people and give them room to do their jobs' disastrous as *Airbnb* scaled; he accordingly – and successfully – switched to a Steve Jobs-inspired hands-on approach, where he was closely involved in every single critical activity (Graham, 2024).

Contrasting these perspectives, it is not obvious that allowing organizational actors other than the founder an increasing share of decision rights is always optimal, nor is it clear precisely what activities founders should pursue to generate maximum value. We make inroads into this important academic and practical debate by asking: How does delegation influence innovation

in a broadly representative sample of small firms? Is it primarily because employees make better decisions or because founders allocate their attention to higher-value tasks? And if the latter, what activities do entrepreneurs prioritize?

To address these questions, we empirically investigate the relationship between delegation and innovation in entrepreneurial ventures, inferring to the most plausible explanation(s) for its drivers and what activities entrepreneurs deem critical. The key insights guiding our analysis stem from work on drivers of delegation, (de)centralization and innovation in complex and entrepreneurial organizations, and founder strategic attention allocation. Theoretically trading off informed decision making against agency costs, firms rely to a larger extent on delegation when knowledge needs, information processing constraints, adaptation needs, and trust in employees are stronger (Aghion and Tirole, 1997; Colombo and Delmastro, 2004; Acemoglu et al., 2007; Bloom et al., 2012; Colombo et al., 2021). Whereas established organizations' patenting tends to benefit from centralizing research and development (R&D) decisions (Argyres and Silverman, 2004; Arora et al., 2014; Argyres et al., 2020), evidence on decentralization and innovation in start-ups is mixed (Grimpe et al., 2019; Lahiri et al., 2019; Lee, 2022). Time and information constraints in these ventures nevertheless imply that delegating decision rights to co-owners, directors, managers, or employees may free up entrepreneur time and improve their human capital allocation (Lazear, 2005; Akcigit et al., 2021; Anderson and McKenzie, 2022; Lindquist and Vladasel, 2025). Many activities lay claim to founder attention; yet, strategy building tasks that integrate and guide all other choices may be especially valuable in an entrepreneurial context (Delmar and Shane, 2003; Van den Steen, 2017; Gans et al., 2019; Grimpe et al., 2019; Camuffo et al., 2020). Overall, although optimizing for performance does not necessarily mean that delegation enhances entrepreneurial ventures' innovation outcomes, binding resource constraints suggest that broader participation in decision making may spur innovation.

Our empirical insight comes from a unique module of the German Socio-Economic Panel where entrepreneurs report their venture's extent of delegation, innovation outcomes, and per-

sonal time allocation, as well as a detailed set of traditional firm and individual characteristics, including personality. The core outcome we examine is incremental innovation: introducing improved offerings is the most common form of innovation and accounts for a substantial share of firms' R&D expenditures (Gatignon et al., 2002; Laursen and Salter, 2006; Leiponen and Helfat, 2011; Lindbjerg and Vladasel, 2025). Delegation comprises founders' involvement of other actors in decision making; this measure captures the broad decision right remits in entrepreneurial ventures, matches general decentralization patterns (Garicano, 2000; Caliendo and Rossi-Hansberg, 2012), and is common in strategy, economics, and finance (Dewar and Dutton, 1986; Bresnahan et al., 2002; Graham et al., 2015). Our main identification strategy is to control for key observables in a setting where entrepreneur and employee attributes are paramount; we complement this approach with entropy balancing and selection on unobservables techniques (Hainmueller, 2012; Oster, 2019). We then expand our analysis to consider delegation depth, other innovation types, agency and ability frictions, as well as entrepreneurs' work flexibility and time allocation across production, human resources, quality management, marketing, resource acquisition, bureaucracy, and strategy activities.

We document a strong, robust, positive association: under our preferred specification, delegation increases the introduction of improved products and services by 20.8 percentage points relative to a sample mean of 32.3%; sensitivity analyses yield similar results. Moreover, unobserved heterogeneity would need to be unreasonably large to explain away this relation: selection of higher-quality founders into delegating decision rights is unlikely to drive our findings. Deeper delegation – to managers and employees, rather than owners and directors – brings little additional benefit, while evidence that sharing decision rights benefits new product, process, business, or marketing innovation is limited. Employee and entrepreneur ability weakly increase the value of delegation for incremental innovation, but ventures in East Germany, where trust is typically lower, benefit twice as much from sharing decision rights. Finally, delegation leaves entrepreneurs' personal time unaffected, but strongly shapes attention allocation inside the firm:

they perform a larger number of distinct tasks within a given horizon, devote substantially higher effort to crafting strategy, and manage more intensively.

Bridging research on innovation and entrepreneurship, we highlight that resource constraints shape how delegation influences innovation in entrepreneurial ventures via founders' attention allocation. Our novel, direct evidence that delegation frees up founder time which is then allocated to firm organizing activities that enhance incremental innovation advances the literature on delegation and innovation (Argyres and Silverman, 2004; Leiponen and Helfat, 2011; Argyres et al., 2020), especially in entrepreneurial firms (Burton et al., 2019; Grimpe et al., 2019; Lee, 2022), by spotlighting an attention allocation mechanism (Akcigit et al., 2021; Anderson and McKenzie, 2022; Lindquist and Vladasel, 2025). We also contribute to a growing body of work on the value of entrepreneurial effort and skills to firm innovation and performance (Bitler et al., 2005; Grimpe et al., 2019; Becker and Hvide, 2022) by uncovering the activities founders consider most profitable (Gifford, 1992; Bhidé, 2000; Delmar and Shane, 2003; Anderson and McKenzie, 2022). Beyond managing more intensely, entrepreneurs allocate particular attention to acquiring market and customer insight, making growth and investment decisions, and engaging in high-level discussions with other owners and directors in order to craft strategy (Gans et al., 2019; Camuffo et al., 2020). Developing strategic intelligence (Goldfarb and Yang, 2009; Goldfarb and Xiao, 2011; Levine et al., 2017) and guiding venture activities (Van den Steen, 2017) appear as clear priorities for entrepreneurs. Yet, the additional attention to strategy generates only incremental innovation, in line with the marginal learning trial-and-error approaches tend to generate (Bingham and Eisenhardt, 2011; Ott et al., 2017; Ott and Eisenhardt, 2020; Kirtley and O'Mahony, 2023). Whereas these studies focus on the ‘doing of strategy’, we examine a preliminary stage, the creation of slack to actually ‘do strategy’: by delegating decision rights, entrepreneurs can work *on* their business, not *in* their business.

## 2 Conceptual framework

To study how delegation of decision making influences innovation in entrepreneurial ventures, we join insights from related bodies of work on its costs and benefits, its links to innovation in larger, more complex organizations, and the binding constraints facing smaller, more entrepreneurial ventures. These key insights provide the intuition guiding our empirical analysis.

### 2.1 Drivers of delegation

At its heart, a firm's extent and depth of delegation trade off the benefits of allowing a better-informed agent to make decisions against the costs of that agent making choices maximizing personal gains, rather than the principal's objective function (Aghion and Tirole, 1997; Dessein, 2002). Contextual factors that increase the relative value of agents' information or decrease their possibility to behave contrary to principals' best interests should then lead firms to adopt higher delegation levels, all else equal. Absent significant constraints to their decision-making, however, a sufficiently informed principal need not delegate.

Existing empirical evidence aligns with these theoretical predictions. Firms favor decentralization – decision right delegation and employee decision making participation – when they depend heavily on local, observable, specialized, or scientific knowledge (Birkinshaw et al., 2002; McElheran, 2014; Dobrojska et al., 2015; Colombo et al., 2021) and when employees have higher productivity (Acemoglu et al., 2007). Firms decentralize more when closer to the technological frontier, when making larger information technology investments, when uncertainty is higher, when heterogeneous environments make learning from others difficult, and when competition is stronger (Bresnahan et al., 2002; Foss and Laursen, 2005; Acemoglu et al., 2007; Guadalupe and Wulf, 2010).<sup>1</sup> Larger knowledge scope, complexity, cognitive overload or distraction foster delegation (Leana, 1986; Colombo and Delmastro, 2004; Dobrojska et al., 2015; Graham et al., 2015; Lawrence and Poliquin, 2023; Asghar and Obloj, 2025), as does higher trust in agents

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<sup>1</sup> Vertical product differentiation and vertical division of labor choices are generally correlated (Wu, 2015); vertical delegation may also be associated with horizontal dispersion of decision rights (Homburg et al., 2012). Albeit important in their own right, both aspects are beyond the scope of our paper.

(Bloom et al., 2012). Conversely, firms favor centralization when formal authority holders possess specialized knowledge (Dobrajska et al., 2015) and coordination needs outweigh adaptation needs (Colombo and Delmastro, 2004; Zhou, 2013; McElheran, 2014; Dessein et al., 2022).

The relatively large firms this evidence pertains to – often public companies, with average employee counts in their hundreds, if not thousands, as well as multiple divisions or business units – appear able to optimize their level of delegation, but smaller firms may face constraints that prevent such optimization. Younger companies display higher decentralization (Acemoglu et al., 2007), especially when competitive, unpredictable business environments overwhelm entrepreneurs' limited information processing ability (Colombo and Grilli, 2013). Yet, founders are often wary of potential agency costs and have strong preferences for control (Wasserman, 2017), such that perceived (managerial) labor market frictions push towards higher centralization (Akçigit et al., 2021). Facilitating insourcing or outsourcing of, for example, financial or marketing experts enhances delegation (Anderson and McKenzie, 2022) and allows founders to focus on critical tasks, thus reducing entrepreneurial human capital misallocation (Colombo and Grilli, 2013; Akçigit et al., 2021; Anderson and McKenzie, 2022; Lindquist and Vladasel, 2025). These studies highlight the binding information and time constraints that entrepreneurs must contend with and possibly limit their ability to delegate optimally.

This economic reasoning revolves around the idea that firms optimize for overall performance and does not imply that delegation *per se* enhances outcomes (Argyres and Silverman, 2004). However, scholars have devoted substantial effort to understanding the importance of delegation for patenting outcomes and new product or service introduction in larger, more established and complex organizations. We now turn our attention to this body of work and later examine the burgeoning literature on delegation and innovation in smaller, younger firms.

## 2.2 Delegation and innovation in complex organizations

Given the importance of specialized, technical knowledge and the challenges of managing large organizations, our simple theoretical framework predicts that decentralization should benefit

innovation in such firms. Yet, empirical work highlights that ‘the relationship between control and innovation may be more complex than previously thought’ (Cardinal, 2001).<sup>2</sup>

Dewar and Dutton’s (1986) prominent early study documents the absence of a relationship between centralization and technological improvements or major advances in footwear manufacturers, while Damanpour’s (1991) classic meta-analysis finds centralization to hinder innovation. But in pharmaceutical companies with multiple business units and R&D laboratories, centralization positively influences the introduction of both new drugs and drug enhancements, forms of radical and incremental innovation (Cardinal, 2001): centralization acts as a form of behavioral control, such that monitoring enhances inventor productivity.

R&D centralization – especially direct corporate control over research budgets – also reduces cross-unit coordination costs, producing higher-impact and, to a lesser degree, broader patents in large, diversified corporations (Argyres and Silverman, 2004). This is mainly because centralization allows for knowledge integration across more diverse inventor networks, facilitating the use of divergent technologies (Argyres et al., 2020). Relying on alternative mechanisms, studies of research spending reach a similar conclusion. Stronger divisional incentives for financial performance – likely to be paired with decentralization as a control mechanism (Foss and Laursen, 2005) – are correlated with lower R&D expenditures due to risk concerns (Hoskisson et al., 1993).<sup>3</sup> While delegation of administrative, financial, business, and R&D-related decisions may facilitate managerial initiative and boost R&D spending in manufacturing firms (Kastl et al., 2013), research-oriented US public companies are more centralized, invest more in research, and obtain more patents per dollar (Arora et al., 2014). Yet, decentralization due to geographical

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<sup>2</sup> In simulations, delegation improves innovation project selection and evaluation when agents have relevant expertise (Böttcher and Klingebiel, 2025). Decentralized retail chains outperform centralized ones in introducing new practices when stores’ markets are fairly diverse, consumers are relatively insensitive to store-level practices, horizons are sufficiently long, and the market environment is stable (Chang and Harrington Jr., 2000). How delegation influences financial performance may generally depend on external and internal contingencies (Richardson et al., 2002), although higher autonomy improves state-owned enterprises’ overall performance (Kala, 2024).

<sup>3</sup> Offering corporate R&D heads strong long-term financial incentives is associated with higher research output and quality in centralized firms that report having only a corporate R&D head, but not in decentralized firms that report having both corporate and divisional R&D managers (Lerner and Wulf, 2007). Incentives for knowledge sharing paired with delegation, however, may act as a conduit for translating consumer insights into innovation capacity and profitability (Foss et al., 2011).

dispersion enhances imitation, rather than novel products (Leiponen and Helfat, 2011).

Overall, complex organizations exhibit superior innovation spending and performance when decision rights are *centralized*. Their organizational structure often features relatively narrow spans of control, allowing key actors to focus on making specialized decisions: indeed, many studies consider R&D (de)centralization specifically. In smaller entrepreneurial ventures, however, founders are more heavily constrained in deploying a similar organizational structure and, when it occurs, delegation entails a broader remit, not strictly defined in terms of innovation or R&D activities. We next explore how delegation and innovation are linked in such firms.

### 2.3 Delegation and innovation in entrepreneurial ventures

Entrepreneurs' time and information constraints are typically large due to the uncertainty facing their ventures (Colombo and Grilli, 2013), making delegation seem particularly useful. Ventures requiring economies of scale and scope around a central task may place generalist pressures on the entrepreneur (Lazear, 2005) that induce human capital misallocation, so their long-term incomes suffer (Lindquist and Vladasel, 2025). Labor market frictions or preferences for control may limit entrepreneurs' use of delegation, however, with negative consequences for ventures' ability to overcome the liability of newness, improve their sales, and ultimately grow (Sine et al., 2006; Mathias and Williams, 2018; Akcigit et al., 2021; Anderson and McKenzie, 2022).<sup>4</sup> Thus, organizational structure is a critical entrepreneurial choice (Burton et al., 2019).

Research on the influence of delegation and organizational structure, more broadly, on innovation in entrepreneurial ventures is relatively scant, although popular notions that startups should employ flat hierarchies to retain agility are rife (Lee, 2022). Choi and Lee (2024) argue that startups may theoretically wish to locate an intermediate level of delegation. The span of control should not be so wide that it overwhelms managers (or entrepreneurs themselves), nor

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<sup>4</sup> Founders are more non-conforming, bureaucracy-averse, and control-oriented than other workers (Busenitz and Barney, 1997; Stuart and Sorenson, 2003; Sørensen, 2007; Wasserman, 2017). Delegation of authority at the consumer interface is negatively associated with young IPO firms' growth, but formalization is beneficial (Chowdhury, 2011). Empowerment-enhancing human resource practices – including commitment and participation – are generally positively associated with firm performance (Rauch and Hatak, 2016).

so narrow that it stifles idea generation and execution; environmental uncertainty and managerial skill should favor narrower spans of control. Accordingly, flatter hierarchies improve game development startups' success in ideation and creativity, but increase the chances of commercial failures due to poor execution (Lee, 2022). For founder-inventors, collaborating with star inventor employees on new technologies is similarly counterproductive for innovation outcomes in medical device startups (Lahiri et al., 2019).

The choice of establishing a middle management layer is a particularly salient organizational design element. Introducing middle managers raises the likelihood that high-tech startups introduce products and services new to the market or firm, and improves total factor productivity (Grimpe et al., 2019). This relationship is especially pronounced when founders possess large stocks of knowledge and in innovation opportunity-rich industries, which speaks to the value of freeing up entrepreneurial attention for searching for, screening, and implementing innovation projects. In this context, the value of additional delegation stems not from the agent's superior knowledge, but from superior entrepreneurial human capital allocation – a key insight our paper aims to test directly.

## 2.4 Entrepreneurial attention and strategy

Although we expect delegation and employee participation in decision-making to free up founder time, how should entrepreneurs allocate these additional resources among pressing tasks? Improving current operations, undertaking valuable firm organizing activities, business planning, developing innovation, attracting financial resources, and boosting marketing place competing demands on entrepreneur attention (Gifford, 1992; Bhidé, 2000; Delmar and Shane, 2003; Grimpe et al., 2019; Anderson and McKenzie, 2022). Each option can be reasonably construed as a priority; yet, attending to firm strategy as the overarching framework that guides all other choices may be especially valuable for overall performance (Van den Steen, 2017; Gans et al., 2019; Camuffo et al., 2020; Yang et al., 2025).

For entrepreneurial ventures, crafting strategy not only requires understanding the interplay

of external environment and internal resources (Eaglin, 2024), but also depends critically on experimentation (Gans and Stern, 2017; Gans et al., 2019; Camuffo et al., 2020). Each iteration allows entrepreneurs to reduce uncertainty and execute pivots to pursue the most potentially profitable ideas (Pillai et al., 2020; Kirtley and O’Mahony, 2023), although trial-and-error approaches typically produce incremental learning (Bingham and Eisenhardt, 2011; Ott et al., 2017; Ott and Eisenhardt, 2020; Kirtley and O’Mahony, 2023). Testing and validating strategic theories nonetheless requires market knowledge, which helps entrepreneurs develop the strategic ability to anticipate and preempt competitor behavior (Goldfarb and Yang, 2009; Goldfarb and Xiao, 2011; Levine et al., 2017). Entrepreneurs may then prefer to deploy any time and attention resources released by delegation towards the pursuit of strategic activities related to understanding the market and competitors, which in turn drives their firm’s innovation.

## 2.5 Empirical expectations

On balance, it is not entirely obvious that delegation significantly improves innovation and, if so, whether this is due to better use of agent or principal human capital. The conceptual framework reveals several blind spots in existing research. First, we lack solid evidence on the link between delegation and innovation in the broader population of entrepreneurial ventures; centralization appears to foster patenting in complex organizations, and while existing evidence is mixed, there are good reasons why decentralization may remain preferable in smaller, entrepreneurial ones. Second, the introduction of middle managers imposes a formal structure, but entrepreneurs may not delegate real authority or genuinely allow employees to participate in decision making; as a result, our understanding of the depth of innovation *given* the formal organizational structure – whatever that structure may be – is limited. Third, firms introduce not only new and improved products and services, but also process, business organization, or marketing innovation. These outcomes may entail differential founder and worker contributions, yet prior work has largely overlooked innovation’s broad nature. Fourth, pairing incentives with authority delegation may align parties’ preferences, but may also induce agents to reduce perceived risks, with ambiguous

effects on overall innovative success; the role of agency and ability frictions, more generally, is poorly understood in entrepreneurial contexts. Finally, if delegation does prove valuable, the source of its value is unclear. Improved entrepreneurial attention and effort allocation provides a leading explanation, but has not been directly investigated before; delegation should allow entrepreneurs to visibly spend more time on tasks related to strategy development, customers, production, or resource suppliers. Of course, delegation may simply make better use of employee knowledge, a possibility our tests are designed to examine. These core expectations guide our analysis, whose aim is to shine empirical light on these blind spots, with important implications for entrepreneurship theory and practice.

### **3 Data and method**

#### **3.1 Data**

We examine the role of delegation for innovation in entrepreneurial firms using data from the German Socio-Economic Panel (SOEP). This representative longitudinal household survey from Germany has collected data on individual and household economic, social, and demographic characteristics annually since 1984. Our analyses draws on two data files for 2022. The SOEP-Core survey, with 52.25% response rate, provides self-reported information on individual age, gender, marital status, children, residence, migration background, education, career experience, the big 5 psychological traits, locus of control, risk taking, and meaningfulness. The SOEP-LEE2 survey, with 44.38% response rate, is addressed to entrepreneurs and micro or small business owners who respond to the SOEP-Core interview. This supplementary questionnaire asks both standard characteristics, such as number of workers, age, legal form, employee composition, types of incentives, or turnover, and – key to our study – questions on delegation, innovation, and business practices. Our main analysis samples combines these two SOEP components, but focuses on entrepreneurs with employees, for whom the choice to delegate or not is salient. Since we prioritize detail over coverage, we are left with 257 observations; albeit relatively small, our

sample size is by no means unusual in entrepreneurship and innovation (e.g., Lee et al., 2020; Colombo et al., 2021; Pan et al., 2025).

**Dependent variables** Our core interest lies in understanding entrepreneurial firms' ability to bring improved offerings to market: *Improved innovation* takes a value of 1 for firms that report introducing new products and services that improve on current offerings, and 0 otherwise. This form of innovation accounts for a substantial fraction of firms' R&D expenditures (Leiponen and Helfat, 2011), but is often viewed as incremental (Dewar and Dutton, 1986; Gatignon et al., 2002; Laursen and Salter, 2006; Lindbjerg and Vladasel, 2025), so we also consider more radical *Product innovation*, associated with the introduction of products or services completely new to the market. Casting a broader net for innovation types common in small firms, *Process innovation*, *Marketing innovation*, and *Business innovation* capture the development or introduction of methods or procedures that noticeably improve (service) production, marketing or sales, and business process organization, respectively. Finally, *Digitization* is equal to 1 when firms report they are well-versed in such technologies relative to industry peers and 0 otherwise. Together, these variables provide a comprehensive view of innovation in small ventures.

We create additional outcome variables to help us understand the link between delegation and founder time allocation. We measure entrepreneurs' self-reported *Work flexibility* as the ease of taking time off during working hours to attend to personal or family matters, ranging from extremely difficult to extremely easy. We observe whether founders are active in *Production*, *Human resources*, *Quality management*, *Marketing*, *Resource acquisition*, *Strategy*, *Bureaucracy*, or *Other* activities on a daily, weekly, monthly, quarterly, or less frequent basis, and count the *Number of distinct activities* founders perform weekly (monthly) or more frequently. We then measure *Managerial intensity* as the aggregate intensity of engagement across these activities, where higher-frequency tasks receive larger weights and we normalize each item's score before aggregating (Bloom and van Reenen, 2007; Kritikos et al., 2025).

**Independent variables** The vertical division of labor in complex organizations is unlike the one common in smaller organizations, characterized by broader delegation patterns. Measures based on the (de)centralization of specific R&D, investment, production, hiring, and marketing roles between central headquarters and plant or business unit managers ([Argyres and Silverman, 2004](#); [Bloom et al., 2012](#)) are therefore inadequate in our context. Instead, measures that capture the broad use of teams, pace and method of work, or employee involvement are better suited to the study of smaller ventures and common across management, economics, and finance ([Dewar and Dutton, 1986](#); [Bresnahan et al., 2002](#); [Graham et al., 2015](#)). Our *Delegation* measure reflects this idea of ‘participation’ and takes a value of 1 when entrepreneurs report involving other individuals in decision-making, and 0 when they report making decisions alone. To understand its depth, we examine *Delegation to owners/directors* and *Delegation to managers/employees* separately, capturing the involvement of (primarily) higher- and lower-ranking members of the organization, respectively.<sup>5</sup> Albeit silent on exactly how much authority is entrusted upon other individuals inside the firm, these measures speak to the entrepreneur’s general tendency to distribute authority widely; in more decentralized organizations with broader decision rights delegation, employees solve more complex problems and escalate fewer problems to the entrepreneur, who must then take fewer decisions alone ([Garicano, 2000](#); [Caliendo and Rossi-Hansberg, 2012](#)), precisely what we capture.

**Control variables** The covariates we include in our models mitigate potentially confounding unobserved heterogeneity, aiming to control for factors that concurrently influence delegation and innovation. Organizations’ size, age, incorporation, high-ability workforce, use of performance incentives, or resource availability, reflected in prior earnings and the ability to weather the Covid pandemic, are such factors. We supplement firm-level controls with individual ones. Entrepreneurs’ socioeconomic status comprises their age, gender, marital status, number of

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<sup>5</sup> *Delegation to franchisors*, where the latter are involved in the firm’s decision-making, is rare; for completeness, we control for it when we examine the depth of delegation, but its inclusion does not affect our results.

children, East Germany residence, migration background, education, labor market history, and managerial experience. Their personal attributes may influence both their propensity to engage in participative decision-making and ventures' innovation outcomes. Accordingly, we control for personality traits (conscientiousness, extraversion, agreeableness, neuroticism, openness), risk preferences, locus of control, and how meaningful respondents find their work ([Caliendo et al., 2014](#); [Koudstaal et al., 2016](#); [Caliendo et al., 2022](#); [Becker et al., 2025](#)).<sup>6</sup>

**Descriptive statistics** In our sample, 32.3% of firms report new products and services that improve on current offerings. Only 11.3% and 10.1% report more radical product or marketing innovation, respectively, but 18.3% and 16.7% report improvements in production or business process organization, respectively. 56.4% of entrepreneurs delegate decision-making to some extent, with more choosing to delegate only to other owners and managing directors (31.9%) than further down the organization to managers and employees (23.7%). The majority of firms have over 10 workers, are older than 10 years, are incorporated, and use performance incentives of some kind, but few have a large share of university educated employees. Entrepreneurs are relatively old, more likely to be men, married, educated, experienced, and live in West Germany; only a minority have children, a migration background, or have been managers in the past. The entrepreneurs in our sample appear broadly representative of the larger population of German business owners.

### 3.2 Empirical approach

An ideal experiment would answer our research question by randomly assigning the use of delegation across the population of (entrepreneurial) firms and then comparing innovation outcomes.

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<sup>6</sup> We impute the values of personality characteristics with the median for a non-negligible minority of missing observations to maximize sample size. Industry and social capital measures are poorly covered in our survey year due to implementation constraints, so we only consider them in sensitivity analyses based on subsequent and previous waves, respectively. We supplement industry with 2023 and 2024 data for those who report not having changed jobs, with indicators for primary activities; manufacturing; construction; trade, transport, lodging, and food services; IT & communications; financial services; professional services; other services; (and otherwise) missing. Our social capital measures stem from answers to 2019 and 2021 questions regarding visits to/from family, relatives, neighbors, friends, or acquaintances, the use of online social networks, participation in sports, political participation, volunteer work, and church attendance. In additional sensitivity analyses we also control for founding mode, share of foreign workers, and whether the firm has a dominant customer.

Such an approach is prohibitively expensive and of limited practical appeal, while attempts to induce quasi-random variation in business practice adoption by randomly training entrepreneurs have not always proven effective (McKenzie and Woodruff, 2017). Our approach therefore relies on observational data and proceeds in several steps.

We begin by examining the univariate relationship between delegation and innovation, then sequentially add variables – firm attributes, socioeconomic characteristics, personality traits – that may simultaneously influence the dependent and independent variables. Our identification strategy relies principally on controlling for observables to address the concern that better firms or entrepreneurs are more likely to both delegate and innovate. We provide a set of robustness checks that address limitations stemming from survey coverage and responses, including variable definition, imputed personality values for a small subset of observations, imputed industry and social capital (from other survey waves), and additional controls.

Our empirical strategy leaves open the possibility that omitted variables bias our estimates. Entrepreneurial ability not captured by education and personality controls may both allow for participative decision-making *and* generate higher innovation, as may social capital, firm culture, or access to external financial and human capital resources (Rauch et al., 2005). Since ‘treated’ founders who delegate decision-making can differ from those who do not, we employ entropy balancing to produce a suitable ‘control’ group (Hainmueller, 2012). We balance on the mean of selected relevant covariates, then include these weights in our main specification; we subject this approach to several sensitivity analyses.<sup>7</sup> To the extent that a similar distribution of observables helps account for unobserved heterogeneity, this approach addresses omitted variable bias. We nonetheless assess the strength of selection on unobservables relative to observables required to bring the point estimate to zero (Oster, 2019) in both our main and entropy balance weighted

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<sup>7</sup> This method is increasingly popular in management research (Distel et al., 2022; Grimpe et al., 2019; Cao et al., 2025; Law et al., 2025). Alternative matching techniques – propensity score or coarsened exact matching – perform poorly in our small sample even in parsimonious specifications. Selected covariates include firm age, size, legal form, high ability workforce, prior year earnings, individual age, gender, number of children, East Germany residence, migration background, years of schooling, risk taking, and locus of control.

samples.<sup>8</sup> Together, these steps subject the core relationship between delegation and innovation to rigorous testing before we proceed to understanding its nuances.

Once we have established a robust link, we can unpack its drivers by studying alternative dependent variables (types of innovation), independent variables (depth of delegation), and possible moderators (delegation frictions, performance incentives). We then zoom in on the notion that entrepreneurs' time is a scarce resource, investigating how delegation influences founders' time allocation and firms' management intensity. Collectively, our tests are designed to understand whether and why delegation influences firms' ability to introduce new offerings or new ways of doing things.

## 4 Results

### 4.1 Delegation and incremental innovation

We begin by estimating the simplest possible univariate relationship in model 1.1 of Table 1: delegation is associated with 27.2-percentage point higher incremental innovation ( $p = 0.000$ ), or 84.2% of the sample mean (32.3%). Of course, since both firm and individual characteristics – socioeconomic attributes or personality traits – may influence both the degree of delegation and the introduction of improved products and services, we progressively control for these factors in models 1.2–1.4. All three sets of controls reduce the estimated coefficient and increase the models' explanatory power, but delegation retains its economically and statistically significant association with innovation. We combine all controls in model 1.5, which represents our baseline: in this demanding specification, delegation is associated with 20.8-percentage point higher improved offerings ( $p = 0.000$ ), or 64.4% of the mean. Based on the 99% confidence interval, we can exclude effect sizes lower than 13.9% and higher than 114.5% of the mean. The sizable positive link between delegation and incremental innovation thus persists even after accounting for a wide set of important, potentially confounding firm and entrepreneur attributes.

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<sup>8</sup> This approach is becoming relatively common in strategy, innovation, and entrepreneurship research (e.g., Lee, 2022; Lindbjerg and Vladasel, 2025; Lindquist and Vladasel, 2025).

**Robustness checks** Before exploring *why* delegation is associated with higher innovation, we perform a set of sensitivity analyses. Our main empirical choices are designed to maximize sample size and statistical power, but alternative samples and specifications produce equivalent – if not stronger – results. Addressing important omitted variables that speak to potential delegation needs and frictions by including controls for industry and social capital, founding mode, a large presence of foreign workers, or having a dominant customer similarly leave our conclusions unaffected.

**Entropy balancing** Entrepreneurs who include organizational members in their firms' decision making may differ systematically from those who do not, so we cannot ascribe our baseline estimate a causal interpretation. As a step in this direction, we use entropy balancing to generate a suitable comparison group for entrepreneurs who delegate, with comparable means for relevant covariates, and estimate the average treatment effect. In model 1.6 of Table 1, delegation is associated with 22.7-percentage point higher innovation ( $p = 0.000$ ), or 71.8% of the weighted sample mean (31.6%). Based on the 99% confidence interval, we can exclude effect sizes lower than 19.2% and higher than 121.4% of the mean. We obtain similar estimates in alternative models that i) examine on the average treatment effect on the treated, ii) include all covariates, or iii) perform balancing for both means and variances. To the extent that employing control firms closely matched on observable attributes to treated ones addresses omitted variable bias, this approach indicates the relation we document between delegation and improved offerings is robust.

**Selection on unobservables** Our main identification strategy relies on controlling for key observable characteristics, but leaves open the possibility that unobserved heterogeneity drives our baseline estimate. In our context, such ‘unobservables’ may include entrepreneurial ability, access to resources, the availability of high-skilled human capital, or social capital and networks uncorrelated with the covariates available in our data. We examine the amount of selection

Table 1: Delegation and incremental innovation

Outcome:	Improved products and services					
	Model 1.1	Model 1.2	Model 1.3	Model 1.4	Model 1.5	Model 1.6
Delegation						
$\beta$	0.272	0.245	0.222	0.257	0.208	0.227
s.e.	(0.036)	(0.058)	(0.058)	(0.055)	(0.063)	(0.064)
$p$	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]
$\delta_{R_{max}=0.5}$					{2.48}	{8.26}
Firm controls	No	Yes	No	No	Yes	Yes
Socioeconomic controls	No	No	Yes	No	Yes	Yes
Personality controls	No	No	No	Yes	Yes	Yes
Entropy balancing	No	No	No	No	No	Yes
No. of observations	257	257	257	257	257	257
$R^2$	0.083	0.262	0.139	0.174	0.376	0.372
Sample mean	0.323	0.323	0.323	0.323	0.323	0.316

All models estimated by ordinary least squares; robust standard errors in parentheses and  $p$ -values in square brackets. Firm controls include age, size, incentives, share of workers with university, high school, or no degree above 50%, prior year earnings, and Covid impact; socioeconomic controls include age, gender, marital status, children, years of education, residence in East Germany, managerial experience, labor market experience; personality controls include conscientiousness, agreeableness, neuroticism, openness, risk taking, locus of control, meaningfulness (and a missingness indicator when either variable was imputed). Model 1.6 uses the weights resulting from entropy balancing on the most relevant covariates, reporting the average treatment effect; the reported sample mean is calculated using the same weights. The final row reports the strength of selection on unobservable characteristics relative to selection on observable characteristics ( $\delta$ ) needed to explain away our point estimate, assuming  $R_{max} = 1.3 \times R^2 \approx 0.5$  (Oster, 2019).

on unobservable characteristics relative to selection on observable characteristics ( $\delta$ ) needed to explain away our preferred estimate in Table 1, model 1.5, assuming  $R_{max} = 1.3 \times R^2$  (Oster, 2019). Our results indicate unobservables must be 2.5 times stronger than observables to drive the point estimate to zero, an amount usually considered unreasonably large and implausible (Altonji et al., 2005; Oster, 2019). This ratio is even higher for model 1.6 ( $\delta = 8.3$ ), suggesting our entropy balancing procedure achieves superior balance for both observable and unobservable attributes. Results are often even stronger for alternative specifications, while more conservative – and less realistic – parameter estimates produce ratios close to 1. Overall, the positive association between delegation and innovation we document cannot be completely explained by unobserved heterogeneity and may include a causal component.<sup>9</sup>

<sup>9</sup> Alternatively, we use entrepreneurs' entry mode – via a founding team, as a joiner at a later stage, or via a takeover of existing operations, relative to solo founding – as instruments for delegation, under the assumption it constrains decision rights. The first stage confirms this intuition, but the second stage estimates an imprecise negative coefficient; a reduced form analysis suggests the exclusion restriction requirement may be violated.

**Summary** Delegation is positively associated with the introduction of improved products and services in small, entrepreneurial ventures. But whether this association is stronger for deeper delegation, for different types of innovation, for larger agency or ability frictions, or stems from entrepreneurs' better time allocation or employees' superior knowledge use remains unclear. We examine each of these important contingencies and mechanisms descriptively in turn.

## 4.2 Depth and types of delegation

Our conceptual framework highlights blind spots in understanding the allocation of real authority, regardless of formal structure, and the broad nature of innovation. Both elements speak to founders' and workers' potentially distinct contributions to innovation in entrepreneurial ventures; we study them in Table 2. Model 2.1 retains our focus on the introduction of improved products and services, but examines delegation depth by contrasting the influence of involving not just other owners and directors, but also managers and employees in firm decision-making. Shallower ( $\beta = 0.203, p = 0.004$ ) and deeper ( $\beta = 0.231, p = 0.006$ ) delegation are similarly ( $p = 0.739$ ) positively associated with incremental innovation, with effect sizes of 62.8% and 71.5% of the sample mean, respectively. Increasing delegation depth beyond the firm's highest levels does not appear to unlock substantial benefits for incremental innovation.

Moving beyond improvements to current offerings, we investigate whether delegation influences the introduction of new products, processes, business organization practices, marketing or sales methods, and digitization. Including other actors in decision-making has a limited general association with such radical or organizational innovation. The estimates for shallower and deeper delegation in Table 2, models 2.2–2.6 echo these findings: associations between delegation of either type and innovation outcomes tend to be positive, but of lower magnitude and statistical significance. Deeper – but not shallower – delegation is positively associated with new marketing or sales methods ( $\beta = 0.108, p = 0.093$ , 106.9% of the mean), indicating some scope for managers and employees to acquire valuable customer information helpful for tailoring external communication. That delegation to managers and employees is also positively

Table 2: Delegation depth and types of innovation

Outcome:	Innovation					
	Improved	Product	Process	Business	Marketing	Digitization
	Model 2.1	Model 2.2	Model 2.3	Model 2.4	Model 2.5	Model 2.6
Delegation to						
... owners/directors						
$\beta$	0.203	-0.035	0.036	0.082	0.038	-0.018
s.e.	(0.070)	(0.049)	(0.063)	(0.061)	(0.049)	(0.076)
$p$	[0.004]	[0.470]	[0.571]	[0.176]	[0.432]	[0.813]
... managers/employees						
$\beta$	0.231	0.014	0.056	0.082	0.108	0.132
s.e.	(0.082)	(0.063)	(0.089)	(0.082)	(0.064)	(0.090)
$p$	[0.006]	[0.819]	[0.532]	[0.319]	[0.093]	[0.147]
All controls	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations	257	257	257	257	257	257
$R^2$	0.379	0.239	0.228	0.230	0.176	0.342
Sample mean	0.323	0.113	0.183	0.167	0.101	0.506

All models estimated by ordinary least squares; robust standard errors in parentheses and  $p$ -values in square brackets. Firm controls include age, size, incentives, share of workers with university, high school, or no degree above 50%, prior year earnings, and Covid impact; socioeconomic controls include age, gender, marital status, children, years of education, residence in East Germany, managerial experience, labor market experience; personality controls include conscientiousness, agreeableness, neuroticism, openness, risk taking, locus of control, meaningfulness (and a missingness indicator when either variable was imputed); we include an indicator for delegation to franchisors for completeness. Tests for coefficient equality return values of 0.739, 0.416, 0.819, 0.995, 0.299, and 0.087 in models 2.1–2.6, respectively.

associated with digitization ( $\beta = 0.132, p = 0.147$ , 26.1% of the mean) is perhaps unsurprising, since they are the individuals who must implement these practices. The weight of the evidence nevertheless points towards limited benefits of delegation beyond the firm's highest levels across a wide range of innovation outcomes.

### 4.3 Delegation frictions

The evidence so far establishes a robust positive relationship between delegation and incremental innovation and a weaker one with marketing practices, especially when managers and employees – and not just other owners or high-level directors – are included in important decision-making. Yet, our conceptual framework suggests the entrepreneur's decision to delegate responsibilities is fraught with ability and agency frictions (Acemoglu et al., 2007; Bloom et al., 2012; Dobrojska et al., 2015; Grimpe et al., 2019; Akcigit et al., 2021). Building on this logic, we study how firm and individual attributes that speak to such frictions influence the link between delegation and

Table 3: Firm and individual moderators

Outcome:	Improved products and services					
	Employees university > 50%		Covid impact negative	East Germany	Years of education	Manager
	Model 3.1	Model 3.2	Model 3.3	Model 3.4	Model 3.5	Model 3.6
<b>Delegation</b>						
$\beta$	0.141	0.145	0.199	0.166	-0.108	0.195
s.e.	(0.104)	(0.108)	(0.079)	(0.068)	(0.296)	(0.072)
$p$	[0.180]	[0.181]	[0.012]	[0.016]	[0.716]	[0.007]
<b>Moderator</b>						
$\beta$	0.097	0.008	0.197	-0.105	-0.006	-0.049
s.e.	(0.164)	(0.074)	(0.083)	(0.108)	(0.014)	(0.099)
$p$	[0.553]	[0.906]	[0.019]	[0.334]	[0.693]	[0.624]
<b>Delegation <math>\times</math> moderator</b>						
$\beta$	0.069	0.096	0.031	0.229	0.022	0.040
s.e.	(0.203)	(0.123)	(0.124)	(0.138)	(0.020)	(0.127)
$p$	[0.736]	[0.438]	[0.801]	[0.098]	[0.271]	[0.752]
All controls	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations	257	257	257	257	257	257
$R^2$	0.382	0.323	0.377	0.384	0.380	0.377
Sample mean	0.323	0.323	0.323	0.323	0.323	0.323

All models estimated by ordinary least squares; robust standard errors in parentheses and  $p$ -values in square brackets. Firm controls include age, size, incentives, share of workers with university, high school, or no degree above 50%, prior year earnings, and Covid impact; socioeconomic controls include age, gender, marital status, children, years of education, residence in East Germany, managerial experience, labor market experience; personality controls include conscientiousness, agreeableness, neuroticism, openness, risk taking, locus of control, meaningfulness (and a missingness indicator when either variable was imputed). Models 3.1 and 3.3 also include interactions of delegation with other measures of employee ability and Covid impact, respectively; model 3.2 includes a single indicator for the use of incentives.

the introduction of product and service improvements in Table 3.

At the firm level, we expect delegation to be more valuable when workers have higher ability, reflected in their education, when performance incentives alleviate information asymmetries with employees to whom decisions are delegated, and when recent poor performance, reflected in a negative Covid pandemic impact, requires organizations to innovate (Aghion et al., 2014). The positive interaction estimates in models 3.1–3.3 support our intuition, but are statistically weak ( $p$ -values from 0.438 to 0.801). At the individual level, we expect delegation to be more valuable for individuals lacking generalized trust to a greater extent (McKenzie and Woodruff, 2017; Akcigit et al., 2021; Dimitriadis and Koning, 2022), common for East, relative to West, Germany residents (Rainer and Siedler, 2009; Becker et al., 2020), and for higher-ability entrepreneurs

who may benefit from performing specialized tasks ([Lindquist and Vladasel, 2025](#)). Model 3.4 supports the idea that delegation is more tightly associated with the introduction of improved products and services in East Germany due to lower confidence in others' actions ( $p = 0.098$ ), while models 3.5 and 3.6 document positive interactions with entrepreneur education and managerial experience, albeit statistically weak ( $p$ -values of 0.271 and 0.752, respectively). Thus, the evidence suggests that delegation frictions play a small, but non-negligible role in understanding how authority distribution influences incremental innovation.

**Robustness checks** The value of delegation may vary systematically with firm age, size, resource availability, and legal form, as well as entrepreneur migrant background and personality. We find this is not the case, as point estimates tend to be small. Moreover, rather than study the broader use of performance incentives, we zoom in on specific incentive tools. Individual and team (but not firm) incentives amplify the value of delegation, while rewards based on tenure or qualifications (but not experience or social criteria) dampen it: guarding against potentially harmful information asymmetries relative to employees entrusted with decision-making can help unlock the innovation benefits of delegating authority. In additional tests entry via a founding team, having a large share of foreign employees, and dependence on a single dominant customer reduce the value of delegation for innovation. Together, these findings shore up the idea that delegation frictions contribute somewhat to our relationship of interest.

#### 4.4 Entrepreneurs' attention allocation

The positive link from delegation to incremental innovation is remarkably robust, but there is only limited evidence that superior decision making on the part of individuals to whom decision rights are allocated is the main driving force. We now evaluate an alternative explanation, that delegation frees up scarce and valuable founder attention that is then allocated to higher-value tasks ([Akcigit et al., 2021](#); [Lindquist and Vladasel, 2025](#)). To accurately describe entrepreneurs' attention allocation, we consider both personal and venture-related activities.

We begin by studying the entrepreneur’s perceived flexibility in taking time off during working hours to attend to personal matters, ranging from extremely easy to extremely difficult. Although models 4.1–4.4 produce correctly signed point estimates, such that delegation is associated with higher work flexibility perceptions, these estimates (*p*-values from 0.458 to 0.871) tend to be economically small. Delegation may free up entrepreneur time, but these savings are not privately beneficial. Instead, we observe them at the firm level. Model 4.5 reveals that delegation is associated with a 16.5% increase in the number of distinct tasks entrepreneurs attend to weekly or more frequently (*p* = 0.012), such that founders cast their attention more broadly. As model 4.6 shows, this is especially true for activities related to crafting strategy – market and competitor research, growth and investment decisions, and discussions with owners and directors, which increase by 49.4% (*p* = 0.000). Finally, model 4.7 reveals that delegation increases entrepreneurs’ managerial intensity by half of a standard deviation (*p* = 0.000): their overall frequency of engaging in the various relevant activities grows markedly.

**Robustness checks** Given the flexibility in creating measures of time allocation, we examine the sensitivity of our empirical choices. Alternative specifications for work flexibility produce similar results, while controlling for work flexibility in our baseline model for incremental innovation leaves our estimate of interest largely unchanged. Results are similar when we assess whether entrepreneurs engage in activities monthly or more frequently, and delegation also increases the chances that entrepreneurs perform quality management tasks (but not other activity types); delegation is positively associated with all three sub-components of strategy activities. In sum, delegation significantly shapes entrepreneurs’ time allocation to venture-related, but not personal tasks, in particular those associated with improving knowledge about one’s competitive position, which may help identify necessary offering improvements and allocate resources accordingly.

Table 4: Delegation and entrepreneur attention allocation

Outcome:	Work flexibility				Activities weekly+		
	Extremely easy	Very easy	Very difficult	Extremely difficult	Number distinct	Strategy only	Managerial intensity
	Model 4.1	Model 4.2	Model 4.3	Model 4.4	Model 4.5	Model 4.6	Model 4.7
<b>Delegation</b>							
$\beta$	0.013	0.032	-0.005	-0.040	0.751	0.309	0.297
s.e.	(0.080)	(0.078)	(0.042)	(0.054)	(0.297)	(0.074)	(0.076)
$p$	[0.871]	[0.676]	[0.901]	[0.458]	[0.012]	[0.000]	[0.000]
All controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of observations	257	257	257	257	257	257	257
$R^2$	0.191	0.109	0.203	0.133	0.342	0.314	0.462
Sample mean	0.342	0.444	0.136	0.078	4.537	0.626	-0.012

All models estimated by ordinary least squares; robust standard errors in parentheses and  $p$ -values in square brackets. Firm controls include age, size, incentives, share of workers with university, high school, or no degree above 50%, prior year earnings, and Covid impact; socioeconomic controls include age, gender, marital status, children, years of education, residence in East Germany, managerial experience, labor market experience; personality controls include conscientiousness, agreeableness, neuroticism, openness, risk taking, locus of control, meaningfulness (and a missingness indicator when either variable was imputed). Models 4.1–4.4 consider different levels of work flexibility as outcomes; model 4.5 considers the number of distinct activities founders perform weekly or more frequently, while model 4.6 focuses on engagement in activities pertaining to strategy weekly or more frequently; model 4.7 considers (standardized) management intensity.

## 5 Discussion

Motivated by the notion that organizational structure is a key entrepreneurial choice that shapes how founders and employees allocate attention and guided by insights from literature on innovation and entrepreneurship, we investigate whether and how delegating decision rights benefits innovation in entrepreneurial ventures. Using detailed survey data from Germany, we establish a strong, robust, positive association between delegation and improved offerings. We find similar effects when entrepreneurs delegate to higher- or lower-ranking members of the organization, but limited evidence that delegation influences more radical product, process, business, or marketing innovation. Employee and entrepreneur ability somewhat enhance the value of allowing other organizational actors to participate in decision-making; residence in East Germany does so significantly. Delegation does not appear to free up entrepreneurs' personal time, but allows them to devote attention to higher-value strategy crafting. We now place these newly surfaced insights into our conceptual framework and infer to the most plausible explanation(s) for why

delegation enhances incremental innovation and what activities entrepreneurs deem critical.

### 5.1 Theoretical implications

Our core finding that delegation fosters the introduction of improved products and services in entrepreneurial ventures brings insights from literature on entrepreneurs' resource constraints into the domain of organizational design. Relative to studies showing that centralization facilitates high-quality patenting in established organizations (Argyres and Silverman, 2004; Arora et al., 2014; Argyres et al., 2020) and that flat hierarchies have contradictory effects on high-tech startups' innovation (Grimpe et al., 2019; Lahiri et al., 2019; Lee, 2022), we examine a more representative sample of small firms, examine broader innovation types, and directly test a mechanism based on founder attention allocation (Colombo and Grilli, 2013; Grimpe et al., 2019; Akcigit et al., 2021). Our novel evidence points towards a way to alleviate the temporal constraints limiting founders' ability to craft strategy and bring innovations to market: allowing other organizational actors to participate in decision making. These benefits are limited to incremental offerings, rather than new product, process, business, or marketing innovation, but arise regardless of delegation depth. Releasing time for crafting strategy appears more valuable than putting others' human capital to superior use, indicating entrepreneurs' temporal constraints are indeed binding and crucial for understanding how delegation influences innovation.

Despite mounting evidence that entrepreneurial effort and skills matter for firm innovation and performance (Bitler et al., 2005; Grimpe et al., 2019; Becker and Hvide, 2022; Choi et al., 2025), exactly what activities founders consider priorities for value creation has remained unclear (Gifford, 1992; Bhidé, 2000; Delmar and Shane, 2003; Anderson and McKenzie, 2022).<sup>10</sup> We contribute evidence that entrepreneurs channel newly released attentional resources across tasks, increasing the number of distinct activities performed and overall managerial intensity. However, they especially devote attention to crafting strategy – market and competitor knowledge, growth

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<sup>10</sup> At the extreme tail of firm performance, the business idea ('horse') appears more important than the founder ('jockey') in venture capital-backed startups that reach an initial public offering (Kaplan et al., 2009).

and investment decisions, and high-level discussions with other owners and directors – and, less so, quality control. Building the strategic ability to anticipate and preempt competitor behavior (Goldfarb and Yang, 2009; Goldfarb and Xiao, 2011; Levine et al., 2017) can help entrepreneurs engage in broader, valuable firm organizing activities (Gifford, 1992; Delmar and Shane, 2003) that integrate and guide all subordinate tasks (Van den Steen, 2017). In our context, founders who delegate appear acutely aware that strategy matters for innovation success and customer value creation (Gans et al., 2019; Camuffo et al., 2020; Yang et al., 2025), and that focusing on core tasks may unlock long-term economic returns (Lindquist and Vladasel, 2025).

The logic of entrepreneurial strategy development can also explain why delegation is only associated with improved offerings, but not with more radical, new products, as well as process, business, or marketing innovation. As founders attempt to narrow the range of possible options for bringing products to market and reduce uncertainty, the experimentation process facilitates repeated product or service iterations that develop incremental knowledge (Bingham and Eisenhardt, 2011; Ott et al., 2017; Ott and Eisenhardt, 2020; Kirtley and O’Mahony, 2023). Rather than radical new offerings, which often depend on technical knowledge and R&D efforts (De-war and Dutton, 1986; Gatignon et al., 2002; Laursen and Salter, 2006; Lindbjerg and Vladasel, 2025), trial-and-error approaches typically generate improved products and services that require limited accompanying organizational change, in line with our evidence.<sup>11</sup>

Evidence that founders channel the time they gain by allowing other organizational actors to participate in decision making into high-value activities implies that attentional resource constraints are binding in entrepreneurial firms.<sup>12</sup> But if releasing such resources is so valuable, why do so many entrepreneurs forego delegation? Leading explanations include perceived agency and

<sup>11</sup> Alternatively, entrepreneurs first design a product at fixed cost, observe the level of demand for the product in the market, and only then decide how to organize production (Caliendo and Rossi-Hansberg, 2012). In our context, new product introduction drives the decision to spend time on strategy to learn demand; an observed high demand requires a larger scale and the attendant hierarchy and delegation. This alternative theory would suggest competition as a driver of new product introduction (Aghion et al., 2014) and delegation – although Marin and Verdier (2008) argue only intermediate competition levels generate such needs – but would be more likely to apply to radical, rather than incremental innovation. As we do not observe a clear link between delegation and new product innovation, the scope for this ‘reverse causality’ interpretation appears limited.

<sup>12</sup> Albeit not an entirely novel idea, we *show* rather than *infer* that attentional constraints bind (Colombo and Grilli, 2013; Dobrojska et al., 2015; Graham et al., 2015; Grimpe et al., 2019; Asghar and Obloj, 2025).

ability frictions in the market for managerial talent or preferences for control (Wasserman, 2017; Akcigit et al., 2021; Anderson and McKenzie, 2022). Our moderation analyses support these ideas to some extent, especially since the value of delegation for innovation is stronger when entrepreneurs reside in East Germany, where trust is typically lower (Rainer and Siedler, 2009; Becker et al., 2020). Inspecting the determinants of delegation (in the Appendix) further backs this notion: beyond tighter constraints, markers of trust, employee ability, and entrepreneur quality all favor larger decentralization. However, individuals with stronger preferences for risk are less likely to delegate, consistent with the idea that entrepreneurs overconfident about their ability may both downplay the risks of centralizing activity and underestimate the necessary resource endowments, such as knowledge about customers and the market (Hayward et al., 2006). Uncovering precisely what prevents entrepreneurs from delegating optimally and developing tools to address such challenges provide fruitful avenues for future research.

## 5.2 Managerial implications

A natural implication is that entrepreneurs who embrace decentralization and flat hierarchies may enjoy higher (incremental) innovation performance by setting aside sufficient time to craft strategy. Our findings thus lend credence to the popular mantra ‘work *on* your business, not *in* your business’, such that entrepreneurs should focus on high-value, specialized tasks, rather than enter ‘founder mode’ and attempt to control all aspects of their venture (Graham, 2024). While founders may perceive delegating decision rights as a loss of control and are, accordingly, reluctant to allow other organizational actors to participate in decision-making, careful employee sourcing (Rocha and Brymer, 2025) and performance incentive deployment (Foss and Laursen, 2005; Foss et al., 2011) may alleviate delegation frictions. Moreover, entrepreneurship training programs that typically focus on building skills around resource acquisition and crafting strategy (Lyons and Zhang, 2018; Camuffo et al., 2020) could expand to consider internal organization and the allocation of employee and founder human capital, two key entrepreneurial choices that can relax resource constraints.

More speculatively, novel technologies may further relieve the generalist pressures facing entrepreneurs, thus reducing the need to delegate decision rights in order to free up attentional resources. In- and out-sourced ([Anderson and McKenzie, 2022](#)) artificial intelligence (AI) tools may be particularly well-suited for ancillary activities such as financial planning, accounting, invoicing, or inventory, facilitating founders' specialization and ultimately increasing productivity even in the absence of delegation, as the personal computer did ([Fairlie, 2006](#)). Conversely, AI tool availability may boost employee productivity, potentially making delegation more appealing and compounding the value of devoting attention to high-value strategic activities.

### 5.3 Additional remarks

Our study examines the relationship between delegation and innovation and performs multiple tests to uncover its drivers, but is not without limitations. We cannot conclusively rule out that higher (unobserved) ability entrepreneurs are both more innovative and more likely to delegate, such that self-selection may be at play. Yet, our ability to address potentially omitted variables with a rich set of firm and individual controls, entropy balancing, and selection on unobservables techniques suggest that self-selection is unlikely to be the only, or even main explanation. Given the need for rich data, we trade off breadth for depth, leaving us with a relatively small, but not unusual, sample size; some estimates remain imprecise, although the link between delegation and incremental innovation, as well as attention allocation, is remarkably robust. Our evidence pertains to Germany, a developed, innovative economy with high average management quality and delegation ([Bloom et al., 2012](#)), and an extensive base of entrepreneurial ventures. Uncovering that delegation fosters incremental innovation by alleviating binding time constraints in such a context implies the value of delegation may be even larger where delegation frictions and attention constraints are substantially stronger ([Akcigit et al., 2021](#)). That said, entrepreneurs in developing countries where such frictions abound and firm differentiation is limited may prefer to invest their limited temporal resources into acquiring financial and social capital or marketing efforts ([McKenzie and Woodruff, 2017](#); [Dimitriadi and Koning, 2022](#)). Finally, our data

do not allow us to track the broader performance implications of delegation and entrepreneur attention allocation, a path we encourage researchers to pursue.

#### 5.4 Conclusion

Using detailed German survey data and guided by managerial frictions literature, we examine whether decision right delegation enhances innovation in entrepreneurial ventures. We attribute the strong, robust, positive association of participative decision making and improved product offerings primarily to superior entrepreneur attention allocation, rather than better employee human capital use. Delegation does not free up founders' personal time, but allows them to manage more intensely and spend additional time crafting venture strategy. Revealed preferences imply not only that attentional resource constraints are binding, but also that entrepreneurs consider acquiring market and competitor insight a priority for unlocking incremental innovation.

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