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DOES CULTURE EAT STRATEGY? THE EMERGENCE OF COOPERATION CAPABILITY IN YOUNG FIRMS

TOBIAS KOLLMANN*,**, CHRISTOPH STÖCKMANN†,††, LUCAS KLEINE-STEGEMANN‡,‡‡, RAINER HARMS§,§§, PHILIPP BENEDIKT JUNG¶,¶¶ and ALEXANDER MICHAELIS‖,‖‖

*University of Duisburg-Essen, Universitätsstraße 9, 45141 Essen, Germany
†Free University of Bozen-Bolzano, Piazza Università 1, 39100 Bolzano, Italy
‡University of Münster, Institute for Entrepreneurship, Geiststraße 24-26, 48151 Münster, Germany
§University Twente, Drienerlolaan 5, 7522 NB Enschede, The Netherlands
¶Deutsche Telekom AG, Friedrich-Ebert-Allee 140, 53113 Bonn, Germany
‖REWE digital GmbH, Humboldtstraße 140-144, 51149 Cologne, Germany
**tobias.kollmann@uni-due.de
††christoph.stoeckmann@unibz.it
‡‡l.k-s@outlook.de
§§r.harms@utwente.nl
¶¶philippbjung@gmail.com
‖‖alexander.michaelis@rewe-group.com

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Young firms benefit from cooperations in their development and cooperation capability is a prerequisite for a successful cooperation with partners. Despite its importance, research has neglected how this dynamic capability emerges in young firms. This study examines how innovation championing behaviour affects the cooperation capability. We introduce innovation strategy and innovation culture as two critical mediators in this relationship. Data from 283 young firms indicate that innovation culture is an essential mediator in the significant positive relationship between innovation championing behaviour and young firms' cooperation capability. Surprisingly, innovation strategy does not directly affect the development of cooperation capability but fosters the development of innovation culture. The findings carry theoretical and practical implications for the emergence of cooperation capability in young firms by uncovering its origins and the intermediate transition process.

††Corresponding author.

Keywords: Cooperation capability; innovation championing behaviour; innovation strategy/culture; dynamic capabilities; young firms.

Introduction

As firms become more and more embedded (Jiang *et al*., 2010; Kollmann *et al*., 2021), they increasingly derive value from their ability to build and manage cooperation (Kim and Higgins, 2007). This specific dynamic capability—cooperation capability—empowers young firms to access resources and markets (Ahuja, 2000; Rothaermel and Boeker, 2008), and reduce risks (García-Canal *et al*., 2002). While scholars agree on the importance of cooperation capability (Bingham *et al*., 2007), studies have provided a "scattered picture" (Kohtamäki *et al*., 2018, p. 195) of the antecedents of cooperation capability. Antecedents include environmental factors (e.g., Johnson *et al*., 2004; Wales *et al*., 2013), organisational factors (e.g., Ritter and Gemünden, 2003, 2004), and individual factors (e.g., Sluyts *et al*., 2011; Wittmann *et al*., 2009). However, it is surprising that empirical research has not yet revealed how the individual behaviour of decision makers transitions into the capability of young firms to cooperate. This research gap is especially notable because of findings in the entrepreneurship literature that explore the emergence of other dynamic capabilities. These findings highlight the importance of individual-level origins, microfoundations, such as heuristics and the characteristics of decision makers (Açıkgöz and Günsel, 2016; Haapanen *et al*., 2018; Lawson and Samson, 2001; Nasaj, 2021).

We address this research gap by drawing on a dataset of 283 young firms in the information and communication technology (ICT) industry. We posit that innovation championing behaviour, in which individuals pursue and promote ideas through organisational stages by overcoming barriers (Walter *et al*., 2011), fosters the cooperation capability of young firms. Furthermore, we argue that the distinct behavioural patterns of innovation champions—that are pursuing innovative ideas, network building, persisting under adversity, and taking responsibility—are essential drivers for building and managing cooperation. In more detail, we posit that this relationship is not straightforward and theorise that formal and informal mechanisms enable the transition from innovation championing behaviour to cooperation capability. The literature highlights formal mechanisms, particularly organisational strategy (e.g., Ritter and Gemünden, 2004; Venkataraman *et al*., 1992), and informal mechanisms, particularly organisational culture (e.g., De Brentani and Kleinschmidt, 2004; Ritter and Gemünden, 2003), as critical success factors for the development of dynamic capabilities (Nybakk and Jenssen, 2012; Pérez-de-Lima *et al*., 2019; Schweitzer, 2016).

On the one hand, a formal innovation strategy can give guidance and structure to the firm and its employees (Ritter and Gemünden, 2004). On the other hand, an

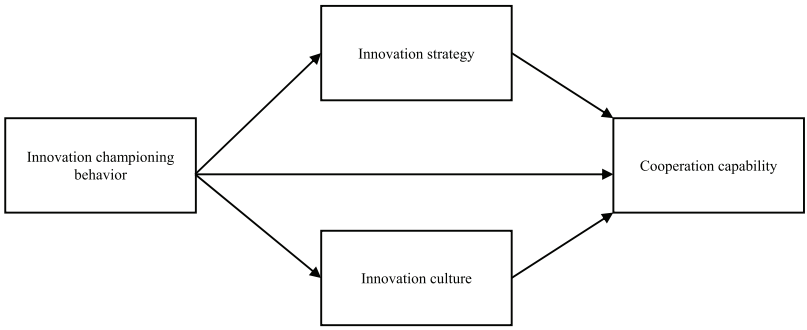

Fig. 1. Proposed research model.

informal innovation culture can be crucial in a firm's openness to change and new ideas (Chandler *et al*., 2000; Ritter and Gemünden, 2003). Both innovation strategy and culture align a firm and its members towards the successful building and management of cooperation. Therefore, we examine innovation strategy and culture as potential mediators in the relationship between innovation championing behaviour and cooperation capability. Figure 1 displays our proposed research model.

We contribute to the literature on (1) microfoundations, and (2) organisational strategy and culture. First, we follow the research call by Bingham *et al*. (2019) and shed light on the individual-level origins of cooperation capability. While the literature has claimed that the initial patterns of organisational capabilities can hardly be specified (e.g., Levitt and March, 1988; Williamson, 1999), we introduce a specific individual-level behaviour—innovation championing behaviour—as an important origin for the development of a particular dynamic capability in terms of cooperation capability. Second, we open the black box by generating knowledge about the transition of individual-level origins to firm-level cooperation capabilities. Our study does so by identifying new mechanisms—innovation strategy and innovation culture—that may transition individual behaviour into firm-level capabilities, as has been called for by Kohtamäki *et al*. (2018). We are the first to empirically mirror the interplay between innovation strategy and innovation culture in the examined transition process. We thus add to the understanding of the processes that enable firms to build cooperation capability (Heimeriks and Duysters, 2007; Kale and Singh, 2007; Kohtamäki *et al*., 2018; Ott *et al*., 2017). In more detail, our study explicitly categorises the concepts of innovation strategy and innovation culture as formal and informal mechanisms, respectively, and adds to the understanding of innovation strategy and culture along with their operating principles.

Third, our paper carves out the neglected particularities of young firms (De Groote and Backmann, 2020; Deakins and Bensemann, 2019; Hogenhuis *et al*., 2017) concerning their cooperation capability (e.g., Kale *et al*., 2002; Rothaermel and Deeds, 2006; Walter *et al*., 2006). Considering these particularities, we suggest a refined conceptualisation covering the critical facets of the cooperation capability of young firms, on which studies have lacked consensus (Kohtamäki *et al*., 2018; Parida *et al*., 2017; Pollok *et al*., 2019). Thus, we provide future scholars with a suitable conceptualisation to assess an important specific dynamic capability in the context of young firms.

Theoretical Background

Literature review

Cooperation capability has been an important topic when studying small and medium-sized enterprises (SMEs) and young firms for many years. Due to their typical liabilities of smallness and newness (Stinchcombe, 1965), especially such organisations need the ability to build and manage inter-organisational relationships (i.e., cooperation) (Núñez-Ríos *et al*., 2022; Sánchez-García *et al*., 2020). Thus, cooperation capability permits these firms to react dynamically to changing environments and target goals that would otherwise be out of their reach (Anand *et al*., 2010). Research has empirically analysed the outcomes of cooperation capability, for instance, innovativeness (Parida *et al*., 2017) or firm performance (Srećković, 2018). Similarly, cooperation capability was found to be critical to transitioning (international) social networks into opportunity recognition/exploitation (Bai *et al*., 2018; Bai and Johanson, 2018) or to moderating the relationships between entrepreneurial orientation and (international) performance (Wales *et al*., 2013). In addition, studies have tried to examine the origins of the emergence of cooperation capabilities in SMEs and young firms. In doing so, mainly organisational (Khalid and Larimo, 2012; McGrath and O'Toole, 2013) or environmental aspects (McGrath and O'Toole, 2014) have been considered. However, the impact of individual origins on the emergence of young firms' cooperation capability was rarely addressed (McGrath *et al*., 2019). In this regard, few have examined personal characteristics, such as prior experiences (Faroque *et al*., 2021), rather than individual actions of decision-makers, as possible antecedents for the emergence of cooperation capabilities in young firms. Based on in-depth nested case studies, Bingham *et al*. (2019) identified the importance of analysing individual origins, microfoundations, for understanding the development of organisational capabilities and called for further (empirical) research. Following this research call, this

study introduces innovation championing behaviour of decision-makers in young ICT firms as an essential individual origin for gaining cooperation capability.

We conducted a systematic literature review to provide a better overview of the most relevant literature on this topic. Since different terms have been used synonymously to describe cooperation capability, we performed several pilot searches and exploratory readings (Kollmann *et al*., 2022). Thus, we obtained our relevant English journal articles by searching for the following keywords in Scopus: "alliance capabilit*" OR "collaborative capabilit*" OR "cooperation capabilit*" OR "network capabilit*" AND "entrepreneur*." We ensure the quality of our data by just focussing on top-tier academic journals[1] and assessing a content fit based on title, abstract, and keywords. Table 1 summarises the remaining 18 articles of our systematic literature review and presents insights on the context, methodological approach, purpose, and key findings.

Cooperation capability as a specific dynamic capability

A dynamic capability is defined as a "set of specific and identifiable processes" on an organisational level (Eisenhardt and Martin, 2000, p. 1105), that is idiosyncratic to the focal firm. Dynamic capabilities enable firms to develop and renew internal and external resources and assets (Teece, 2014), as needed to innovate and reach competitive advantages in the long run (Eisenhardt and Martin, 2000; Teece *et al*., 1997). As these abilities allow swift adaptation to new situations, they are crucial in dynamic environments (Eisenhardt and Martin, 2000). Dynamic capabilities are essential to creating value in diverse contexts, such as internationalisation endeavours, acquisition plans, and cooperation activities (Bingham *et al*., 2015). In this study, we focus on young firms' specific dynamic capability to cooperate, the so-called cooperation capability, which permits them to react dynamically to changing environments and target goals that would otherwise be out of their reach (Anand *et al*., 2010). It comprises the four dimensions of partnering proactiveness, coordination, relational skills, and internal communication.

First, partnering proactiveness encompasses a young firm's specific processes to sense and respond to partnering opportunities (Sarkar *et al*., 2009). In more detail, this includes actively monitoring and collecting information about potential partners and markets to preempt competitors from initiating new valuable partnerships (Sarkar *et al*., 2009). Second, the coordination of cooperation activities represents

[1]We included only articles from peer-reviewed journals having the minimum VHB-Jourqual 3 rating of "B." The Jourqual 3 is a magasine ranking published by the German Academic Association for Business Research. It can be available at http://www.vhbonline.org [accessed on 13 December 2022].

Table 1. Key literature on cooperation capability.

Articles	Context	Method	Purpose	Key findings
Bai *et al.* (2018)	Young firms	Quantitative empirical—SEM	"This paper aims to examine the extent to which returnee entrepreneurial ventures (REVs) gain international performance advantages from the founding entrepreneurs' experience with international networks." (p. 51)	"The findings highlight the concurrent effect of the role of entrepreneurs and organisational learning in internationalisation, and they provide an understanding as to the importance of the returnee-specific advantages for the international performance of these firms." (p. 51)
Bai and Johanson (2018)	Young firms	Quantitative empirical—SEM	"This study probes the concept of network-mediated opportunities and attempts to identify what drives a firm's reception of new international opportunities." (p. 167)	"[…] we find that networking capability is a mediating factor between relational embeddedness and network-mediated opportunity, but does not mediate the relationship between network closure and network-mediated opportunity; on the other hand, we find a direct relationship between network closure and network-mediated opportunity." (p. 167)
Bingham *et al.* (2019)	Young firms	Quantitative empirical—Case studies	"While much research suggests that capabilities are critical for firms, little is known about the individual-level origins ("microfoundations") of capabilities." (p. 121)	"[…] executives begin by seeding the process with imperfect heuristics and then managers continue development by elaborating their understanding of what task to perform and how to perform it. Importantly, managers across hierarchical levels support the development of their firm's internationalisation capability by abstracting key heuristics away from anyone experience such that the capabilities become less routine over time." (p. 121)
Cenamor *et al.* (2019)	SMEs	Quantitative empirical—SEM	"[…] the effect of digital platform capability and network capability on entrepreneurial SMEs' financial performance. […] how exploitation and exploration orientations moderate this relationship." (p. 196)	"The results suggest that entrepreneurial SMEs can enhance their performance through digital platform capability by aligning this capability with their orientation." (p. 196)
Faroque *et al.* (2021)	Young firms	Quantitative empirical—SEM	"Given that microfoundations perspective and prior experience in [international entrepreneurship] are under-developed and under-theorised, we explore founder's prior experience as an essential microfoundation for the dual network capability." (p. 1)	"[…] the study demonstrates that founders' prior experience is a significant microfoundation of dual network capability in international [opportunity recognition]. However, both exploration and exploitation capabilities fail to bring new opportunities in a changing market environment." (p. 1)

Khalid and Larimo (2012)	Young firms	Quantitative empirical—SEM	"[…] our study investigates the role of alliance entrepreneurship with its effects on common vision, alliance capability and alliance performance in penetrating into the foreign markets." (p. 891)	"[…] findings of our study reveal a positive and significant affect of alliance entrepreneurship on common vision, alliance capability and alliance performance. However, more significant support is received for the relation between alliance entrepreneurship and alliance capability through moderating interaction effects of barriers to alliance knowledge acquisition and firm level learning orientation." (p. 891)
McGrath *et al.* (2019)	Young firms	Quantitative empirical—Case studies	"We present a processual model of how managerial understanding of network capability develops, comprising of three parts each building on the earlier: (i) in relationships, (ii) through relationships and (iii) in the network." (p. 214)	"[…] two sensemaking processes were found to predominate—problem solving and social-cognitive processes. Our model highlights the role of the start-up manager in sensemaking with managers across a number of firms to resolve commercial problems." (p. 214)
McGrath and O'Toole (2014)	Young firms	Quantitative empirical—In-depth interviews	"Using the micro-brewing industry in Ireland and Belgium as an empirical base, the purpose of this paper is to extend this research through examining the relationship between national culture and the development of network capability in an entrepreneurial context." (p. 897)	"Low power distance facilitated network capability development through wider network engagement. High masculinity and individualism negatively impacted network capability development as evidenced by a lack of experience in interaction, a desire for control and in-dependence and minimal information sharing. Strong uncertainty avoidance scores allowed for joint problem-solving and industry cooperation whereas a short-term orientation led to more transaction-based exchange within the value chain." (p. 897)
McGrath and O'Toole (2013)	Young firms	Quantitative empirical—Network analysis	"[…] this paper identifies and describes the factors that both enable and inhibit the entrepreneurial firm's development of its network capability." (p. 1141)	"[…] findings illustrate the complexity of network capability development. The factors inhibiting the development of network capability were found to outweigh the ones enabling it. Past network experience, information sharing and participation in coordinated consumer events represent some of the factors found to enable network capability. Conversely, a desire for control over decision making, a lack of knowledge sharing or joint problem solving and the perception of value chain activity links and resources as unnecessary inhibits network capability." (p. 196)

(*Continued*)

Table 1. (*Continued*)

Articles	Context	Method	Purpose	Key findings
Nordin *et al.* (2018)	Young firms	Quantitative empirical—Case studies	"Due to their inherent uncertainty, emerging high-tech business fields require a unique set of network management capabilities. Drawing from the dynamic capabilities literature and the networking capability literature, we develop a framework for network management in such environments." (p. 89)	"The findings identify how [the three capabilities] are enacted through a portfolio of activities, providing a microfoundational insight into how a focal actor in an entrepreneurial and explorative manner navigates and manages a business field in the making." (p. 89)
Parida *et al.* (2017)	Young firms	Quantitative empirical—SEM	"In the present study, we propose and examine an updated five-dimension NC [network capability] construct and test its effect on innovativeness and performance." (p. 94)	"[…] samples of small firms and start-ups support measurement properties of the proposed NC construct and suggest that the often-overlooked dimension in NC research of network relationship building is important to include in a complete NC construct." (p. 94)
Shu *et al.* (2018)	Young firms	Quantitative empirical—Regression analysis	"A model of entrepreneur network capability concerning the agent role of nascent entrepreneurs in developing and managing social networks, which is further related to entrepreneurial opportunity discovery, is proposed in this study." (p. 197)	"A sample […] supported the positive relationship between network capability and opportunity discovery after controlling for entrepreneurs' prior knowledge, cognitive bias, and political skills. Further, the relationship was found to be mediated by enhanced network configuration (i.e., network centrality) and moderated by entrepreneurs' power distance orientations." (p. 197)
Solano Acosta *et al.* (2018)	SMEs	Quantitative empirical—SEM	"Entrepreneurial Orientation on the International Performance of this kind of businesses. Particularly, both the direct effects of explanatory variables of International Performance and interdependence relations between them are analysed." (p. 1128)	"Results […] show that the International Performance of this kind of businesses is favourably influenced by their Network Capability and International Entrepreneurial Orientation, but not by their International Market Orientation. Similarly, it is verified that interdependence relations exist among the explanatory variables of International Performance of SMEs, where positive impact of International Entrepreneurial Orientation is observed on Network Capability and the International Market Orientation of SMEs." (p. 1128)

Srećković (2018)	Young firms	Quantitative empirical—Regression analysis	"Building on the organisational capabilities view, this study explores the impact of network and managerial capabilities on the performance of entrepreneurial firms in the architecture and real estate sector." (p. 807)	"[…] differences in entrepreneurial orientation between architecture and real estate development firms, we argue that under higher environmental uncertainty, network capabilities are more important for the performance of architecture firms whereas managerial capabilities are more important for the performance of real estate development firms. […] the research results support the hypotheses." (p. 807)
Torkkeli *et al.* (2018)	SMEs	Quantitative empirical—Regression analysis	"The purpose of this paper is to examine the impact of institutional environment on the international performance of small- and medium-sized enterprises (SMEs) and how this relationship is influenced by network competence." (p. 31)	"The international performance of SMEs is influenced directly and indirectly by institutional drivers. The results show that network competence mediates the positive relationship between institutional drivers and international performance." (p. 31)
Wales *et al.* (2013)	Young firms	Quantitative empirical—Regression analysis	"This research examines the nature of the relationship between entrepreneurial orientation (EO) and small firm performance." (p. 93)	"The results from a sample of 258 Swedish small firms indicate an inverted U-shaped relationship between EO and small firm performance." (p. 93)
Walter *et al.* (2006)	Young firms	Quantitative empirical—Regression analysis	"[…] we investigated the impact of network capability […] on organisational performance." (p. 541)	"Not only do the results suggest that a spin-off's performance is positively influenced by its NC, but the findings also indicate that a spin-off's EO fosters competitive advantages." (p. 541)
Zhou *et al.* (2010)	Young firms	Quantitative empirical—SEM	"In this article, two related but conceptually distinct capability upgrading constructs—knowledge capability upgrading and network capability upgrading—are identified to serve as mediating mechanisms that link entrepreneurial proclivity and LAN-related [learning advantages of newness] performance." (p. 882)	"Our findings […] provide supporting evidence for the mediating effect of capability upgrading, particularly among relatively larger new ventures and those operating with cost/price advantages in the international marketplace." (p. 882)

organisational processes that enable a young firm to integrate and synchronise activities, knowledge flows, and strategies across different partners (Sarkar *et al*., 2009; Walter *et al*., 2006). Connecting firms and coordinating relationships leverages the value generated from dyads and derives synergies from interstices between cooperation partners (Dyer and Hatch, 2006; Mohr and Spekman, 1994; Powell *et al*., 1996; Walter *et al*., 2006). Third, relational skills allow a firm to precisely perceive and adapt to diverse social situations by facilitating dynamic responses to various informational and social stimuli approaching the organisation from the inside and outside (Walter *et al*., 2006). Exercising these skills helps to leverage more value from (interpersonal) exchange situations by minimising the imperfections that may arise in cooperation activities (Madhok and Tallman, 1998). Fourth, internal communication refers to the manifestation of organisational processes that foster the frequent exchange of information within an organisation. Making frequent use of internal communication helps to connect and leverage the value of internal resources by distributing new information throughout the organisation, avoiding redundant processes, and detecting synergies with cooperation partners (Cohen and Levinthal, 1990; Walter *et al*., 2006). Taken together, cooperation capability is a specific dynamic capability that comprises the building and management of cooperation activities of young firms, influencing their competitive advantages in the long run (Eisenhardt and Martin, 2000; Teece *et al*., 1997).

Hypotheses Development

Effect of innovation championing behaviour on cooperation capability

Decision makers have the power and the means that allow them to shape the development of dynamic capabilities with their behaviour (Augier and Teece, 2009; Felin and Foss, 2005; Lambe *et al*., 2002; McGrath and O'Toole, 2013; Pollok *et al*., 2019; Wittmann *et al*., 2009). The influence of these individuals appears even stronger in young firms (Kim and Higgins, 2007) because they have smaller team sizes, somewhat undefined goals, and fewer structures than established firms (Brinckmann *et al*., 2019; Ensley *et al*., 2006).

Against this backdrop, the distinctive behaviour of champions (Howell *et al*., 2005), also called innovation champions (Walter *et al*., 2011), has been highlighted by several studies as being critical for the long-term success of firms (e.g., Howell and Higgins, 1990; Markham *et al*., 2010; Schon, 1963). In line with Walter *et al*. (2011), we define innovation champions as "individuals who aggressively pursue ideas and make significant contributions by persevering and overcoming barriers to enthusiastically promote the idea through organisational stages"(Walter *et al*., 2011, p. 588). Innovation champions can convert ideas into products and bring

them successfully to the market (Schon, 1963; Tushman and Nadler, 1986). When firms lack innovation champions, it is likely that valuable ideas lie dormant instead of unfolding their inherent potential and increasing firms' competitiveness (Brown and Eisenhardt, 1995; Frost and Egri, 1991). At the same time, the literature emphasises that innovation champions are knowledgeable about the organisation in terms of its needs, resources, constraints, and relevant processes (Chakrabarti, 1974; Kahn *et al*., 2013; Markham and Griffin, 1998) and therefore know the value that cooperation may offer. In this paper, we argue that innovation champions in decision-making positions can mobilise and steer organisational resources and activities towards the development of cooperation capability by successfully building new and managing existing cooperation (Dushnitsky and Lavie, 2010; Graebner, 2004; Howell *et al*., 2005; Kahn *et al*., 2013; Klingebiel and Rammer, 2014; Markham and Griffin, 1998). We base our argumentation on the four distinct behavioural patterns of innovation champions identified by Walter *et al*. (2011)—their pursuit of innovative ideas, engagement in network building, willingness to take responsibility, and persistence under adversity.

First, innovation champions engage in behavioural patterns that foster the organisational ability to build new cooperation. By pursuing innovative ideas, innovation champions constantly search for ways to convert ideas into products by every means (Markham *et al*., 1991; Schon, 1963; Tushman and Nadler, 1986; Walter *et al*., 2011). As cooperation complements internal resources and skills, innovation champions are likely to use this means to push their ideas forward and thus foster the building of new external partnerships of young firms (Bstieler *et al*., 2015). Moreover, innovation champions build networks by proactively searching the market environment for new information and opportunities (Ancona and Caldwell, 1990; Howell and Shea, 2006; Santoro and Chakrabarti, 2002). In cultivating external relationships, they exchange and receive information from external parties, such as market partners, customers, or opponents (Chakrabarti and Hauschildt, 1989). They develop processes that allow organisations to identify and choose from suitable cooperation opportunities (Beath, 1991). Furthermore, innovation champions' willingness to take responsibility also enables them to consider missteps instead of giving up when facing uncertainty (Frost and Egri, 1991; Howell *et al*., 2005; Jervis, 1975; Maidique, 1980; Schon, 1963). As cooperation is associated with uncertainty (Eriksson and Sharma, 2003), in particular when working with new partners, those persons who are willing to put their position and reputation at risk can signal a high quality of cooperation undertakings in front of other decision makers (Jervis, 1975; Maidique, 1980). The willingness to take responsibility is vital to ensure organisational support so that even very precarious projects with new and unknown partners receive organisational funding (Howell and Shea, 2006; Walter *et al*., 2006, 2011).

Second, innovation champions engage in behavioural patterns that successfully promote the organisational ability to manage existing cooperation. Innovation champions build strong networks by using and improving existing relationships with suppliers and customers (Walter *et al*., 2011). They apply their diplomatic skills to gain access to the knowledge of diverse people within their existing internal and external networks. They can enhance the quality of this network by connecting the interstices between various parties and developing trustful relationships (Bstieler *et al*., 2015; Chakrabarti and Hauschildt, 1989). Managing networks of higher quality allow innovation champions to access nearly all information of interest and offers the opportunity to select and persuade established contacts in order to buy into their plans, such as joining cooperation projects (Chakrabarti and Hauschildt, 1989; Howell *et al*., 2005; Huy and Zott, 2019). By enhancing the relationships between existing internal and external partners, innovation champions establish more productive boundary conditions that foster internal and external communication flows and the relational skills of other employees (Bstieler *et al*., 2015; Keller and Holland, 1983; Shane *et al*., 1995). In addition, innovation champions persist with their endeavours even under adversity (Walter *et al*., 2011). This enables them to fight hindrances successfully and vigorously enforce the development of their ideas and plans, which would otherwise be doomed to fail (Garud and Van de Ven, 1992; Maidique, 1980). Instead of ending a cooperation, which is important for the development of certain products, innovation champions try to overcome the challenges inherent to cooperation activities, such as bureaucratic hindrances and interpersonal difficulties (Markham *et al*., 1991). They do so by initiating a variety and high frequency of attempts to actively facilitate existing relationships, for instance, through the monitoring and coordination of existing cooperation activities (Howell and Shea, 2001; Santoro and Chakrabarti, 2002). In line with the aforementioned arguments, we expect that innovation champions have advantages regarding both their ability to build new cooperation and to manage the existing cooperation of young firms successfully. Thus, we hypothesise the following:

Hypothesis 1: *Innovation championing behaviour of decision makers is positively related to the cooperation capability of young firms.*

Transition from innovation championing behaviour to cooperation capability

In order to understand how the championing innovation behaviour of decision makers transitions into the organisational capability to cooperate, the underlying mechanisms of this relationship need to be examined more closely (Helfat and Peteraf, 2015). The literature highlights organisational strategy (e.g., Ritter and Gemünden,

2004; Venkataraman *et al*., 1992) and organisational culture (e.g., De Brentani and Kleinschmidt, 2004; Ritter and Gemünden, 2003) as antecedents of firms' ability to cooperate (Kohtamäki *et al*., 2018). Recent organisational studies have suggested categorisation into central organisational dimensions, such as formal organisational design and informal organisational culture (Desantola and Gulati, 2017). Transferring the categorisation above to the context of dynamic capabilities, we introduce innovation strategy—as a formal mechanism of organisational design—and innovation culture—as an informal mechanism of organisational culture. Using these two mechanisms, we examine how innovation championing behaviour transitions into cooperation capability.

The mediating role of innovation strategy

Business strategy can be defined as an organisation's long-term procedures, policies, and plans that frame an organisation's behaviour in the market (Ritter and Gemünden, 2004). Concerning cooperation activities, the innovative dimension of strategy (i.e., innovation strategy) appears essential. Innovation strategy manifests itself in the form of "incentives, approaches to venturing, and infrastructural support for venturing" (Venkataraman *et al*., 1992, p. 489) and can create room for vitality and innovativeness in organisations (Pisano, 2015). Furthermore, it emphasises R&D activities, the desire for technological leadership, and new product development (Ritter and Gemünden, 2004). In line with the focus of our study, we examine the impact of innovation championing behaviour on innovation strategy, which, in turn, affects the cooperation capability of young firms.

Prior research has found that innovation champions can significantly impact the internal distribution of power and resources and strategic decision-making (Howell *et al*., 2005; Markham *et al*., 2010; Pollok *et al*., 2019). As discussed above, innovation champions are knowledgeable of and sensitive to an organisation's needs, objectives, and mission (Santoro and Chakrabarti, 2002). Being aware of the importance of space for innovative ideas, not only for themselves but for the whole organisation (Walter *et al*., 2011), innovation champions try to shape an institutional context that enables the pursuit of new ideas within organisational boundaries (Van de Ven, 1986). In this regard, an innovation champion often emerges as an "informal leader" (Clarysse and Moray, 2004; Howell and Shea, 2006, p. 202) to create boundary conditions that allow the development of new ideas with a broad set of means (Howell *et al*., 2005; Van de Ven, 1986). By engaging in network building, innovation champions create avenues and reach out to other parties and individuals in the organisation who are in charge of resource allocation, such as other decision makers (Walter *et al*., 2006). With their willingness to take responsibility and persist under adversity, they absorb most of the risks of projects on themselves (Shane

et al., 1995). They convince stakeholders, such as other decision makers, to buy into the importance of frequently searching for and pursuing new ideas with organisational resources (Ter Wal *et al*., 2017). As innovation champions manage to persuade other decision makers with their skills, technological, and organisational knowledge (Chakrabarti and Hauschildt, 1989), the management team is likely to stress the importance of innovation development (Maidique, 1980) by strengthening an organisation's innovation strategy (Burgelman, 1983). Following this line of thought, we argue that innovation champions in decision-making positions engage in behaviour that influences the development and implementation of strategic procedures, policies, and plans, thereby setting formal guardrails that foster the innovation strategy of young firms. Therefore, we hypothesise the following:

Hypothesis 2a: *Innovation championing behaviour of decision makers is positively related to the innovation strategy of young firms.*

Empirical findings indicate that organisations with a strong innovation strategy build capabilities that enable the successful development of innovations over time (Ritter and Gemünden, 2004). By implementing formal mechanisms, such as incentives and monetary budgets for experimentation and failure, an organisation pushes its members towards the development of innovations (Symeonidou and Nicolaou, 2018; Venkataraman *et al*., 1992). In this context, interfirm relationships constitute a central instrument to improve the development of innovations (Wu and Cavusgil, 2006). Furthermore, as organisational members embedded in an innovation-fostering infrastructure will be rewarded for developing innovations, they will try to leverage cooperation's potential value (McGrath and O'Toole, 2013). Thus, organisations with a substantial innovation strategy are likely to emphasise engagement in proactively scanning the market (Hambrick, 1982), coordinating existing relationships, and building interfaces that facilitate and increase the effectiveness of knowledge transfer and interactions between different units and external parties (Beretta *et al*., 2018; Figueiredo *et al*., 2020). In this vein, we argue that a robust innovation strategy constitutes an organisational infrastructure that fosters the development of the cooperation capability of young firms (Eisenhardt and Martin, 2000; Teece, 2014). Accordingly, we hypothesise the following:

Hypothesis 2b: *Innovation strategy is positively related to the cooperation capability of young firms.*

These arguments suggest that the behaviour of innovation champions impacts innovation strategy, which, in turn, affects cooperation capability. Combining these two lines of thought, we propose that the formal mechanism—innovation

strategy—plays a mediating role in the relationship between the innovation championing behaviour of decision-makers and the cooperation capability of young firms. Hence, we hypothesise the following:

Hypothesis 2c: *Innovation strategy mediates the relationship between innovation championing behaviour of decision makers and cooperation capability of young firms.*

The mediating role of innovation culture

Organisational culture describes "a set of norms, attitudes, values, and behavioural patterns that form the core identity of an organisation or operating unit" (De Brentani and Kleinschmidt, 2004, p. 312; Denison, 1984). Against cooperation activities, the innovative dimension of culture (i.e., innovation culture) seems critical. Innovation culture manifests in many ways, such as rites, routines, or the encouragement and openness of employees to develop new product ideas (e.g., Andriopoulos, 2001; Cooper and Kleinschmidt, 1995; Walter *et al*., 2006) and may foster the development of new ideas (Ahmed, 1998; Denison, 1984). It comprises an organisation's willingness to change, openness towards the new, and the joy of experimenting (Sammerl, 2006). Following the focus of our study, we examine the impact of innovation championing behaviour on innovation culture and, in turn, the effect of innovation culture on cooperation capability.

A set of studies have found that decision-makers may influence the evolution of organisational culture (e.g., Augier and Teece, 2009; Desantola and Gulati, 2017; Giberson *et al*., 2005). In this regard, Chung and Gibbons (1997, p. 10) see that the only effective mechanism to create and control individual behaviour is through an "appropriate culture". As innovation champions are knowledgeable about the organisation (Chakrabarti and Hauschildt, 1989; Santoro and Chakrabarti, 2002), they know the relevance of organisational culture (Denison, 1984). Therefore, it is likely that innovation champions actively target the organisational systems of norms, attitudes, values, and behavioural patterns to channel their ideas. In so doing, innovation champions align existing and incoming organisational members towards the development of innovations by nurturing an innovative culture (Bstieler *et al*., 2015; Oyemomi *et al*., 2016). Moreover, innovation champions may indirectly influence other organisational members by engaging in specific behavioural patterns. For instance, in pursuing innovative ideas, innovation champions inspire and influence others "with their vision of an innovation's potential" (Howell and Higgins, 1990, p. 320; Van de Ven, 1986). Innovation champions act as role models that foster organisation-wide curiosity towards innovation development (Howell and Shea, 2006). Also, by persisting under adversity and taking responsibility,

innovation champions demonstrate confidence in their team and the ability to overcome resistance, establish norms, and impede routines (Schon, 1963; Shane *et al*., 1995). This way, innovation champions may foster a culture open to change, experimentation, and collaboration (Alig, 2013; Chung and Gibbons, 1997; Howell and Shea, 2006; Mascitelli, 2000). In addition, innovation champions act as boundary spanners within the organisation and create informal communication channels between different organisational members (Chakrabarti and Hauschildt, 1989). These informal communication channels enable the vivid exchange of knowledge and ideas across organisational functions and foster a dynamic culture that enables "to learn from others," which also enhances organisational openness and curiosity (Bstieler *et al*., 2015; Howell *et al*., 2005; Walter *et al*., 2011, p. 590). In line with these arguments, we argue that innovation champions in decision-making positions engage in behaviour that influences organisational members' attitudes, norms, values, and behavioural patterns and thereby set informal guardrails that strengthen the innovation culture of a young firm (Alig, 2013; De Brentani and Kleinschmidt, 2004; Teece *et al*., 1997). We hypothesise the following:

Hypothesis 3a: *Innovation championing behaviour of decision makers is positively related to the innovation culture of young firms.*

Empirical evidence points towards the positive outcomes of innovation culture on cooperation capability (Cooper and Kleinschmidt, 1995; Ritter and Gemünden, 2003; Zheng *et al*., 2010). A positive innovation culture supports collaboration, supports risk-taking and dealing with failures, permits the emergence of employees who strive for innovation, creativity, and autonomy, and gives room to develop ideas (Brettel *et al*., 2015; Cooper and Kleinschmidt, 1995). When an organisation is curious, keen to experiment, and open (i.e., it has a strong innovation culture), it is likely that its members seek interactions to exchange knowledge for innovations and will therefore build and expand channels of communication (Chakrabarti, 1974; De Brentani and Kleinschmidt, 2004; Zheng *et al*., 2010). Channels of communication often emerge from the informal initiatives of its members rather than the intended management design (Keller and Holland, 1983). Developing an efficient informal communication structure helps the diffuse organisation's knowledge within its boundaries and interact and learn from external partners (Pollok *et al*., 2019; Walter *et al*., 2006). Moreover, a positive innovation culture can motivate and retain (or even attract) key talent that might otherwise leave because their ideas and projects might not receive enough internal support, appreciation, and sponsorship (Howell *et al*., 2005). The systematic motivation, retention, and attraction of key talent are essential to building idiosyncratic processes, especially those that rely heavily on the transfer of knowledge, such as cooperation activities (Chung

and Gibbons, 1997; Teece, 2014; Teece *et al*., 1997). Additionally, interfirm relationships are very often exchanged situations between individuals (Walter *et al*., 2006), so employees who are embedded in a supportive innovation culture are capable and willing to build and retain dynamic processes to approach, coordinate successfully, and manage partnerships and thus enhance an organisation's capability to cooperate (Sarkar *et al*., 2009). Against this background, we argue that a strong innovation culture fosters the development of processes that constitute the capability of young firms to cooperate (Eisenhardt and Martin, 2000; Saffold, 1988; Smirnova *et al*., 2011; Teece, 2014). We hypothesise the following:

Hypothesis 3b: *Innovation culture is positively related to the cooperation capability of young firms.*

The reasoning above concludes that the behaviour of innovation champions impacts innovation culture, which, in turn, affects cooperation capability. We combine these two lines of thought and argue that the informal mechanism—innovation culture—plays a mediating role in the relationship between the innovation championing behaviour of decision-makers and the cooperation capability of young firms. We hypothesise the following:

Hypothesis 3c: *Innovation culture mediates the relationship between innovation championing behaviour of decision-makers and the cooperation capability of young firms.*

Method

Sample and data collection

To test our hypotheses, we chose the ICT industry, which is driven by innovation and characterised by dynamism and uncertainty (Keil *et al*., 2008). Firms in the ICT industry typically emphasise the development of innovations and new related capabilities (Miller, 1983; Zahra, 1993). Moreover, to meet quickly changing market needs, these firms tend to engage in frequent strategic reorientations and high levels of cooperation activity (Kale *et al*., 2002; Kuusela *et al*., 2017; Pateli, 2009). Therefore, the chosen industry is a suitable environment for analysing the emergence of organisational capabilities (Keil, 2004). Furthermore, we selected Germany as the country of origin, as it steadily ranks among the world's most innovative countries (Soumitra *et al*., 2020).

In line with established research, we only included firms that were 12 years old at most to separate young from established firms (e.g., Bantel, 1998; Kollmann and

Stöckmann, 2014; Palmer *et al*., 2019). Our sample consists of decision makers in charge of cooperation activities, who were thus knowledgeable about their company and its activities (John and Reve, 1982; Phillips, 1981; Ritter and Gemünden, 2004). The participants had to hold a decision-making role concerning cooperation activities in the firm, as the impact of innovation champions is only likely to unfold with a position that has considerable power (Augier and Teece, 2009; Felin and Foss, 2005; Lambe *et al*., 2002; Pollok *et al*., 2019; Wittmann *et al*., 2009). We took a top-down data collection approach to obtain as many decision-makers from young German ICT firms as possible for the survey. In doing so, we first called 2,191 potential decision-makers to motivate them to participate in our questionnaire. We had 1,497 telephone calls; the other potential participants could not be reached. After excluding those who had no interest/no time for the survey and were prohibited from communicating information to external parties, 1,208 potential participants remained. The questionnaire was then sent to the willing decision-makers by e-mail. All respondents were asked if they were top executives with the power to decide about their firms' cooperation. If so, they were allowed to continue with the questionnaire. If not, the questionnaire should be forwarded to a top executive who is the primary decision maker about cooperation in the company. 506 persons clicked on the survey, and 296 completed the questionnaire. After filtering out all invalid and incomplete answers, 283 fully completed questions were left, which are the basis for our analyses. Thus, we have a response rate of 12.92%, which is an acceptable ratio for web-based surveys (Klassen and Jacobs, 2001).

In the questionnaire, we included variables capturing descriptive information on personal (i.e., age, gender, education, and work experience) and organisational level (i.e., firm age and size). On average, the decision makers were 35.95 years old, with a standard deviation (SD) of 7.42, and the majority were male (87.63%). The gender distribution of the participants in our sample aligns with the generally small percentage (21.8%) of women in decision-making positions in the German ICT industry (German Federal Statistical Office, 2018). Almost three-quarters (74.91%) of the decision makers had a university degree (including degrees from universities of applied science and doctorate/habilitation) and an average of 12.65 years of overall work experience (SD = 7.41). From an organisational perspective, the firms in our sample had an average age of 2.93 years (SD = 2.60) and employed 9.79 full-time equivalents (SD = 28.14). Table 2 shows the sample composition.

Measures

Innovation championing behaviour. We measured innovation championing behaviour as a second-order multidimensional construct by building on the

Table 2. Sample composition (total sample = 283).

Age (key informant)		Work experience	
< 30 years	21.2%	< 5 years	11.0%
30 to < 40 years	49.8%	5 to < 10 years	27.2%
40 to < 50 years	23.7%	10 to < 20 years	44.9%
≥50 years	5.3%	20 to < 30 years	13.4%
Gender (key informant)		≥ 30 years	3.5%
Male	87.6%	Firm Age	
Female	12.4%	< 3 years	55.8%
Education (key informant)		3 to < 6 years	27.9%
No educational qualification	0.0%	6 to < 9 years	12.0%
German "Hauptschule"	0.4%	6 to ≤ 12 years	4.2%
German "Realschule"	3.5%	Firm Size	
High school graduation	21.2%	2 to < 5 FTEs	53.0%
Bachelor or Master degree	66.8%	5 to < 10 FTEs	24.7%
PhD or habilitation	8.1%	10 to < 20 FTEs	14.8%
		≥ 20 FTEs	7.4%

four-dimensional scale suggested by Walter *et al*. (2011). The four dimensions are pursuing innovative ideas, network building, persisting under adversity, and taking responsibility. Each dimension encompasses three items, so the construct innovation championing behaviour comprises 12 items. An exemplary item is "I pursue my goals despite setbacks and obstacles." For all measures, the key informants had to indicate how much they agreed or disagreed with the respective items. A seven-point Likert scale was used, from 1 = *does not apply at all* to 7 = *applies fully and completely*. All central measures in this study applied this type of Likert scale. In line with prior research (e.g., Kollmann *et al*., 2020; Wang, 2008), reliability and validity testing support the proposed theoretical structure of the instrument. Cronbach's alpha for innovation championing behaviour was 0.86. Conducting confirmatory factor analysis (CFA) confirmed good model fit to the data (chi-square/degrees of freedom [χ^2/df] = 2.78; comparative fit index [CFI] = 0.93; root mean square error of approximation [RMSEA] = 0.08; standardised root mean square [SRMR] = 0.06). Model comparison underlined the superiority of the proposed second-order conceptualisation in contrast to an inferior unidimensional conceptualisation (χ^2/df = 5.06; CFI = 0.82; RMSEA = 0.12; SRMR = 0.08), with the χ^2-difference test ($\Delta\chi^2$ test) being significant with $p < 0.001$.

Cooperation capability. Literature has used multiple approaches to define and measure the ability of firms to cooperate (e.g., Anand and Khanna, 2000; Heimeriks and Duysters, 2007; Kale *et al*., 2002; Ritter and Gemünden, 2003; Sarkar *et al*., 2009). To adequately capture the particular cooperation capability of young firms, we built on and adapted the four-dimensional conceptualisation of network capability from Walter *et al*. (2006). In so doing, we dropped the dimension of partner knowledge (Kale *et al*., 2002; Walter *et al*., 2006) because it captures the prerequisite of organised information about cooperation partners that young firms cannot yet possess (or only to a minimal amount) because of their limited age (Kim and Higgins, 2007; Rasmus, 2012). Young firms need to sense and preempt partnering opportunities first and can only consequently possess knowledge about partners (Kim and Higgins, 2007; Sarkar *et al*., 2009). Therefore, we replaced the dimension of partner knowledge with partnering proactiveness. This dimension was built on the alliance proactiveness scale by Sarkar *et al*. (2009) and was complemented with two items following Schilke and Goerzen (2010). We slightly adjusted the resulting seven-item scale on partnering proactiveness to suit the context of young firms by addressing all kinds of cooperation instead of focussing on strategic alliances. In line with Walter *et al*. (2006), the dimension of coordination comprises six items, relational skills comprise four items, and internal communication consists of five items. A sample item is "My company actively monitors its environment to identify partnering opportunities." Thus, we operationalised the cooperation capability of young firms as a second-order construct that consists of four dimensions and 22 items in total. Testing confirms the reliability and validity of the proposed theoretical structure of the instrument. Cronbach's alpha for cooperation capability was 0.93. Conducting CFA corroborated good model fit of the proposed second-order construct to the data (χ^2/df = 1.27; CFI = 0.99; RMSEA = 0.03; SRMR = 0.04). Model comparison confirms the superiority of the proposed model over an inferior unidimensional model (χ^2/df = 3.56; CFI = 0.85; RMSEA = 0.10; SRMR = 0.08) with a significant $\Delta\chi^2$ test ($p < 0.001$).

Innovation strategy. To measure innovation strategy, we build on the four-item scale used by Ritter and Gemünden (2004). A sample item is "My company places high emphasis on our R&D activities." After conducting established tests for method validation, we eliminated one item because of an average variance extracted (AVE) value below the recommended threshold of 0.50. The Cronbach's alpha for the resulting three-item scale of innovation strategy was 0.74.

Innovation culture. Innovation culture was measured using the eight-item scale introduced and validated by Sammerl (2006). A sample item is "My company is

characterised by a high willingness to change." Cronbach's alpha of innovation culture was 0.90.

Covariates. As is suggested by prior literature, we included covariates for personal and organisational variables, as these might influence the variables of interest. On personal level, we included the key informants' age (in years), gender (1 = male; 2 = female), level of education (1 = no school leaving certificate; 7 = doctorate/habilitation), and total work experience (in years). On an organisational level, we controlled for firm size (full-time equivalents) and firm age (in years).

Method validation and common method bias

Overall, the suggested measurement model comprises two second-order multidimensional constructs (i.e., innovation championing behaviour and cooperation capability) and two first-order unidimensional constructs (i.e., innovation strategy and innovation culture). All constructs and factors were measured reflectively. In line with established methodological recommendations (e.g., Nunnally, 1978; Podsakoff *et al*., 2003), we conducted statistical tests to confirm the reliability and validity of our measurement model. We also used procedural and statistical techniques to mitigate the risk of common method variance (Podsakoff *et al*., 2003).

We used Cronbach's alpha and composite reliability (CR) to assess reliability. The values of the constructs of our study ranged from 0.74 to 0.93 for Cronbach's alpha and from 0.75 to 0.91 for CR. Thus, both criteria confirm good internal reliability of the constructs as they exceed their respective recommended thresholds of 0.70 (Fornell and Larcker, 1981; Peter, 1979). To assess convergent validity, we evaluated factor loadings and the AVE for each construct. The factor loadings for the second-order constructs ranged from 0.56 to 0.95, which were above the acceptable threshold of 0.50 (Hair *et al*., 2019). All indicator loadings ranged from 0.45 to 0.86, above the common threshold of 0.40 (e.g., Brettel *et al*., 2012). The AVE values exceeded 0.50, except for the construct of innovation strategy. Following research (e.g., Brettel *et al*., 2012), we eliminated the item with the lowest factor loading. The resulting construct of innovation strategy comprises three items. Subsequently, we reran the statistical tests. The results confirm the compliance of all our study's constructs, including innovation strategy. Hence, the tests demonstrated convergent validity. We also checked for discriminant validity. As Henseler *et al*. (2015) showed that standard approaches used to test for discriminant validity might fail to detect a deficiency in common research situations, we calculated the recommended heterotrait–monotrait ratio of correlations (HTMT). The HTMT test "requires the calculation of a ratio of the average correlations between constructs to the geometric mean of the average correlations within items

of the same constructs" (Voorhees *et al*., 2016, p. 124). Despite its newness, this emerging test has already been frequently applied in various research fields, among others, in entrepreneurship research (e.g., Anderson *et al*., 2019; Bacq and Alt, 2018; Moore *et al*., 2021). Following the recommendations for covariance-based structural equation models (Voorhees *et al*., 2016), we applied the strict cut-off value of 0.85. The HTMT ratios ranged between 0.59 and 0.75, which were below the recommended cut-off value, ensuring discriminant validity of our constructs. Taken together, the empirical tests support the reliability and validity of our scales.

In addition, we applied *ex-ante* procedural and *ex-post* statistical techniques to mitigate the risk of common method bias influencing our results. *Ex-ante*, we guaranteed the confidentiality and anonymity of all participants who provided information (Podsakoff *et al*., 2003). *Ex-post*, we conducted Harman's single-factor test and the latent method factor technique. The results of Harman's single-factor test (31.41% variance for the first factor) indicate that not a single factor is responsible for the majority of variance among the variables of our study (Chang *et al*., 2010; Podsakoff *et al*., 2003). To further test for common method variance and in line with the recommendations by Podsakoff *et al*. (2012), we also applied the latent method factor technique, already used in entrepreneurship studies (e.g., Hughes *et al*., 2014). We did so by constructing a model that comprised the items of the latent constructs of our study but only one single latent factor. In this model, all items loaded on this single latent factor. We then conducted a model comparison between the constructed single latent factor model and our hypothesised multiple factor measurement model. The $\Delta\chi^2$ test shows the inferiority of the single latent factor when compared to the superior hypothesised multiple factor model ($\Delta\chi^2$ = 1,509.57; df = 14; $p < 0.001$). Thus, the techniques used indicate that common method variance does not affect our results. To further rule out multicollinearity we also calculated the variance inflation factor and found the highest value to be 2.00, which is significantly below the common cutoff value of 10 (Hair *et al*., 2019; Neter *et al*., 1996).

Table 3 summarises the variables of interest with their respective dimensions, items, and factor and indicator loadings. Finally, Table 4 displays the descriptive statistics and the correlations of all variables included in the study.

Analysis and Results

We followed the recommended two-step approach by Anderson and Gerbing (1988). First, we tested the measurement model with CFA. Second, we conducted a series of nested model comparisons to identify the structural model that best captured the covariance between latent exogenous and endogenous constructs (Kollmann

Table 3. Overview of variables, dimensions/items, and factor/indicator loadings.

Variables	Dimensions/items	Factor/ indicator loadings[a]
Innovation championing behaviour	***Pursuing innovative ideas***	**0.95**
	I always seek ideas for innovations.	0.60
	I push change with innovative ideas.	0.72
	I take innovative ideas directly to potential customers.	0.68
	Network building	**0.70**
	I make use of my personal relationships.	0.76
	I continuously improve my network of personal relationships.	0.80
	I cultivate my relationships with customers and other partners.	0.78
	Persisting under adversity	**0.90**
	I create potentials to realise my goals.	0.68
	I make use of all available means to solve arising problems.	0.66
	I pursue my goals despite setbacks and obstacles.	0.68
	Taking responsibility	**0.82**
	I am prepared to deal with the consequences of failures.	0.67
	I take responsibility for costs.	0.45
	I take responsibility for products or services.	0.52
Cooperation capability	***Partnering proactiveness***	**0.81**
	My company actively monitors its environment to identify partnering opportunities.	0.83
	My company routinely gathers information about prospective partners from various forums (e.g., trade shows, industry conventions, databases, publications, internet).	0.75
	My company is alert to market developments that create potential cooperation opportunities.	0.79
	My company strives to preempt our competition by entering into cooperation with key firms before our competition can.	0.66
	My company often takes the initiative in approaching firms with cooperation proposals.	0.78
	My company acts with a high degree of foresight and proactiveness regarding entering into cooperation and pursues emerging opportunities at an early stage.	0.86
	My company is far more proactive and responsive in finding and going after (potential) cooperation compared with our competitors.	0.70
	Coordination	**0.87**
	In my company, what is liked and desired to be achieved with which partners is analysed.	0.80
	In my company, the use of resources (e.g., personnel, finances) is matched to individual relationships.	0.77

(*Continued*)

Table 3. (*Continued*)

Variables	Dimensions/items	Factor/ indicator loadings[a]
	In my company, information about partners' goals, potentials, and strategies is obtained.	0.85
	In my company, the possible partners to talk to about building relationships are assessed in advance.	0.75
	In my company, coordinators who are responsible for relationships with our partners are appointed.	0.62
	In my company, there are regular discussions with partners on how to support one another in our success.	0.77
	Relational skills	**0.84**
	My company can build good personal relationships with business partners.	0.80
	My company can put itself in its partners' position.	0.78
	My company can deal flexibly with partners.	0.78
	My company always solves problems constructively with our partners.	0.84
	Internal communication	**0.56**
	In my company, there are regular meetings for every project.	0.60
	In my company, employees develop informal contacts among themselves.	0.58
	In my company, communication often occurs across projects and subject areas.	0.76
	In my company, managers and employees give intensive feedback on each other.	0.59
	In my company, information is often spontaneously exchanged.	0.54
Innovation strategy	My company is the technological leader in our industry.	0.68
	My company places high emphasis on our R&D activities.	0.81
	My company constantly develops its products.	0.64
Innovation culture	My company's actions are characterised by openness to new, unconventional ideas.	0.74
	My company can be described as keen to experiment.	0.66
	My company is characterised by a high willingness to change.	0.65
	My company's management team exemplifies innovative thinking and acting.	0.81
	My company is willing to take a certain amount of risk in pursuing new ideas and innovations.	0.66
	In my company, an innovation-friendly attitude is anchored.	0.81
	In my company idea, bearers experience great motivation and support.	0.77
	In my company, values and standards promote innovations.	0.70

Note: All central measures (displayed above) use a seven-point Likert scale anchored from 1 = *does not apply at all* to 7 = *applies fully and completely*. [a]Factor loadings are in bold.

Table 4. Descriptive statistics and correlations.

Variable	Mean	*SD*	1	2	3	4	5	6	7	8	9	10
1. Innovation championing behaviour	6.14	0.66										
2. Cooperation capability	5.40	0.89	0.61***									
3. Innovation strategy	6.00	0.98	0.56***	0.49***								
4. Innovation culture	6.11	0.78	0.63***	0.57***	0.62***							
5. Age (key informant)[a]	35.95	7.42	0.03	0.03	0.14*	0.05						
6. Gender (key informant)[b]	1.12	0.33	–0.05	–0.04	–0.13*	–0.07	–0.01					
7. Education (key informant)[c]	6.25	1.25	–0.06	–0.05	0.01	–0.01	0.02	–0.01				
8. Total work experience (key informant)[d]	12.65	7.41	0.06	0.06	0.10	0.04	0.88***	0.00	–0.20***			
9. Firm age[e]	2.93	2.60	–0.15*	–0.16**	–0.10	–0.20***	0.24***	0.01	0.13*	0.18**		
10. Firm size (FTEs)	9.79	28.14	0.04	–0.01	–0.04	–0.03	–0.02	0.09	0.10	–0.05	0.30***	

Note: $N = 283$. SD = Standard deviation; FTE = Full-time equivalent. All significance levels are based on two-tailed tests. [a]For age (key informant), measured in years. [b]For gender, 1 = male, 2 = female. [c]For education, 1 = no school leaving certificate, 2 = lower secondary school leaving certificate, 3 = secondary school leaving certificate, 4 = advanced technical college, higher education entrance qualification certificate, 5 = polytechnic degree, 6 = university degree, 7 = doctorate/habilitation. [d]For total work experience, measured in years. [e]For firm age, measured in years. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

and Stöckmann, 2014; Patzelt *et al*., 2020). Finally, we used structural equation modelling (SEM) and conducted maximum likelihood estimation with AMOS to test the hypotheses of our research model (Arbuckle, 2017; Schermelleh-Engel *et al*., 2003). Applying SEM enables us to estimate various associations simultaneously, examine observed and latent constructs in one model, and account for potential effects arising from biases in the measurement errors of latent constructs (Kollmann and Stöckmann, 2014; Shook *et al*., 2004). In addition, literature has emphasised the usefulness of SEM when a mediation model is anticipated (see Table 1), as in our study (Monsen and Boss, 2009).

Measurement model

To test our measurement model, we included all latent constructs in the analysis and examined the fit of the measurement model to the data. As suggested earlier (e.g., Beauducel and Wittmann, 2005; Kollmann and Stöckmann, 2014; Patzelt *et al*., 2020), we assessed a set of common indices that provided us with diverse information about the model, including χ^2, df, χ^2/df, Bollen-Stine bootstrap, CFI, RMSEA, and SRMR. The values of all indices indicate a good food fit for the measurement model (χ^2 = 1,469.40, df = 907, χ^2/df = 1.62, Bollen-Stine bootstrap p-value > 0.01, CFI = 0.92, RMSEA = 0.05, SRMR = 0.06).

Nested model comparison

According to Anderson and Gerbing (1988), a model is nested within another model (e.g., when all its freely set parameters are a subset of those to be found in the nesting model. In line with this, we compared nested structural models to identify the best-fitting model that addresses our research questions (Schermelleh-Engel *et al*., 2003). To choose the best-fitting model, we conducted the $\Delta\chi^2$ test (Anderson and Gerbing, 1988). When there was no significant difference according to the $\Delta\chi^2$ test, we chose the more parsimonious model, as suggested in the literature (e.g., Jayawarna *et al*., 2020; Kam and Fan, 2020). We did so by evaluating the Akaike information criterion (AIC), which considers model complexity and balances model fit with parsimony (Burnham and Anderson, 2002; Schultz *et al*., 2014). In total, we contrasted seven structural models.

To differentiate between the impact of covariates and the impact of the variables of interest, we first examined Model 1, including only the covariates of firm age and size, to obtain data on their respective effects on cooperation capability. Model 1 only provides poor fit values (CFI = 0.85; RMSEA = 0.06; SRMR = 0.20) and therefore advocates the testing of further models. Model 2 adds the direct baseline effect of innovation championing behaviour on cooperation capability. Compared

with Model 1, Model 2 significantly differs ($\Delta\chi^2 = 112.64$; difference of degrees of freedom (Δdf) = 1; $p < 0.001$) and fits the data better (CFI = 0.86; RMSEA = 0.06; SRMR = 0.17). Model 3 adds the partial mediating effect of innovation strategy on the link between innovation championing behaviour and cooperation capability. The fit values of this model are significantly better compared with those of Model 2 ($\Delta\chi^2 = 135.87$; Δdf = 4; $p < 0.001$). Models 3 and 4 could not be compared directly because they are not nested within each other, but Model 4 can be compared directly with Model 2. Model 4 adds the partial mediating effect of an innovation culture to Model 2. Contrasting Model 4 with Model 2 ($\Delta\chi^2 = 179.56$; Δdf = 4; $p < 0.001$) shows that Model 4 provides significantly superior values (CFI = 0.89; RMSEA = 0.05; SRMR = 0.11). Subsequently, we compared the AIC of Model 3 with the AIC of Model 4. The results show the superiority of Model 4, as it has lower AIC values than Model 3 (2,307.96 < 2,351.65). Consequently, we continued to compare Model 4 with Model 5, which includes the covariates of firm size and firm age plus the partial mediation of innovation strategy and the partial mediation of innovation culture on the link between innovation championing behaviour and cooperation capability. This comparison shows that Model 5 is superior to Model 4 ($\Delta\chi^2$ =164.43; Δdf = 4; $p < 0.001$) and provides satisfactory fit values (CFI = 0.91; RMSEA = 0.05; SRMR = 0.06). Model 5 represents our proposed research model. To ensure that there are no better-fitting models, we contrasted further theoretically derived models. As recent anecdotal evidence points towards an interesting alternative direct effect of innovation strategy on innovation culture (e.g., Jaakkola and Hallin, 2018), we also examined this relationship in our model. In line with this, Model 6 adds the partial mediation effect of innovation strategy to innovation culture on the link between innovation championing behaviour and cooperation capability. Indeed, Model 6 has a significantly better fit (CFI = 0.91; RMSEA = 0.04; SRMR = 0.06) compared with Model 5 ($\Delta\chi^2 = 18.16$; Δdf = 1; $p <$ 0.001). Following this thought, we also tested Model 7, which eliminates the direct link between innovation strategy and cooperation capability, and compared it with Model 6. The results show that Model 7 does not significantly differ from Model 6 ($\Delta\chi^2 = 0.10$; Δdf = 1; $p = 0.74$). As the $\Delta\chi^2$ test did not yield significant results, we compared the parsimony of the two models and evaluated the AIC criterion. Model 7 (CFI = 0.91; RMSEA = 0.04; SRMR = 0.06) is more parsimonious than Model 6 and constitutes the best-fitting model because of its lower AIC value (2,133.48 < 2,135.37).

Thus, the nested model comparison shows that the hypothesised Model 5 does not provide the best-fitting model. Model 7 has the best-fitting values that capture the covariance in the latent constructs. Model 7 explains 53% of the variance in cooperation capability, which is an indication of the substantive contribution of practical significance. This model emphasises the hypothesised importance of

the two mechanisms of innovation strategy and innovation culture. Surprisingly, this model does not support the assumption that there is a direct link between innovation strategy and cooperation capability. In addition, the results support the unexpected assumption that innovation strategy only plays a mediating role when innovation culture is considered a subsequent mediator in the relationship between innovation championing behaviour and the cooperation capability of young firms. Table 5 outlines the results of the nested model comparison.

Hypotheses testing and path estimates

The results of the analysis lend support to Hypothesis 1, suggesting a positive significant effect of innovation championing behaviour on the cooperation capability of young firms ($\beta = 0.50$; $p < 0.001$). Hypotheses 2a, 2b, and 2c address the role of innovation strategy in this relationship. The results show a positive significant effect of innovation championing behaviour on innovation strategy ($\beta = 0.77$; $p < 0.001$), that is, Hypothesis 2a is supported. However, the insignificant link between innovation strategy and cooperation capability leads us to reject Hypothesis 2b and, consequently, Hypothesis 2c (partial mediation of innovation strategy in the relationship between innovation championing behaviour and cooperation capability). Hypotheses 3a, 3b, and 3c address the role of innovation culture in the baseline relationship. The results show a positive significant impact of innovation championing behaviour on innovation culture ($\beta = 0.39$; $p < 0.001$) and a positive significant impact of innovation culture on cooperation capability ($\beta = 0.27$; $p < 0.01$), that is, Hypothesis 3a and Hypothesis 3b are supported. Furthermore, the results lend empirical support to the partial mediating effect of innovation culture on the baseline relationship ($\beta = 0.13$; $p < 0.05$), postulated by Hypothesis 3c.

Post-hoc analysis

In contrast to our hypothesised research model, the findings of the nested model comparison challenge us to reconsider how innovation championing behaviour transitions into cooperation capability. The best-fitting Model 7 sheds additional light on the mechanisms that underlie the examined relationships. First, the empirical findings suggest that innovation strategy positively and significantly impacts innovation culture ($\beta = 0.46$; $p < 0.001$). Second, the results support the assumption that there is partial mediation through innovation strategy and, subsequently, innovation culture in the relationship between innovation championing behaviour and cooperation capability ($\beta = 0.12$; $p < 0.05$). Third, the results suggest that there is no direct effect of innovation strategy on cooperation capability. The post-hoc analysis indicates that innovation culture is the central mechanism in the examined

Table 5. Nested model comparison.

	χ^2	df	Comparison	$\Delta\chi^{2a}$	Δdf	CFI	RMSEA	SRMR	AIC[b]	Adjusted R^2 in cooperation capability
Model 1: Covariates of firm size and firm age	2,290.16	1,176				0.85	0.06	0.20	2,590.16	0.03
Model 2: Covariates of firm size and firm age plus the link between innovation championing behaviour and cooperation capability	2,177.52	1,175	Model 2 vs. Model 1	112.64* (Model 2 is superior)	1	0.86	0.06	0.17	2,479.52	0.50
Model 3: Covariates of firm size and firm age plus partial mediation of innovation strategy in the link between innovation championing behaviour and cooperation capability	2,041.65	1,171	Model 3 vs. Model 2	135.87* (Model 3 is superior)	4	0.88	0.05	0.15	2,351.65	0.50
Model 4: Covariates of firm size and firm age plus partial mediation of innovation culture in the link between innovation championing behaviour and cooperation capability	1,997.96	1,171	Model 4 vs. Model 2	179.56* (Model 4 is superior)	4	0.89	0.05	0.11	2,307.96	0.53
Model 5: Covariates of firm size and firm age plus partial mediation of innovation strategy and partial mediation of innovation culture in the link between innovation championing behaviour and cooperation capability (hypothesised model)	1,833.52	1,167	Model 5 vs. Model 4	164.43* (Model 5 is superior)	4	0.91	0.05	0.06	2,151.52	0.53

(*Continued*)

Table 5. (*Continued*)

	χ^2	df	Comparison	$\Delta\chi^{2a}$	Δdf	CFI	RMSEA	SRMR	AIC[b]	Adjusted R^2 in cooperation capability
Model 6: Covariates of firm size and firm age plus partial mediation of innovation strategy and partial mediation of innovation culture in the link between innovation championing behaviour and cooperation capability plus the link between innovation strategy and innovation culture (additional partial mediation in the link between innovation championing behaviour and cooperation capability)	1,815.37	1,166	Model 6 vs. Model 5	18.16* (Model 6 is superior)	1	0.91	0.04	0.06	2,135.37	0.52
Model 7: Covariates of firm size and firm age plus partial mediation of innovation culture in the link between innovation championing behaviour and cooperation capability plus the link between innovation strategy and innovation culture (additional partial mediation in the link between innovation championing behaviour and cooperation capability)	1,815.48	1,167	Model 7 vs. Model 6	0.10 (n.s.; p = 0.74) (Model 7 is superior because of parsimony)	1	0.91	0.04	0.06	2,133.48	0.53

Note: $N = 283$. [a]$\Delta\chi^2$ = chi-square-difference test; significance comparison between respective models. [b]AIC = Akaike information criterion; the lowest value indicates the best-fitting model. *$p < 0.001$.

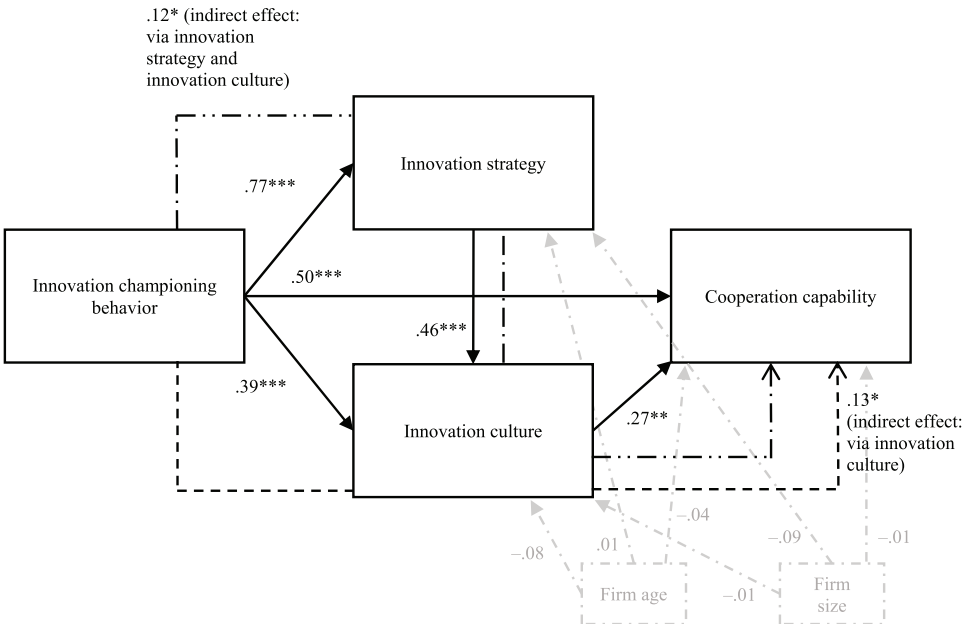

Fig. 2. Final model through nested model comparison.

Note: $N = 283$. Standardised parameter estimates displayed. This representation is a simplified version of the actual model for reasons of clarification. This version does not display indicators, error terms, dimensions of innovation championing behaviour/cooperation capability, and covariates for the exogenous variable (i.e., age, gender, level of education, total work experience) that are included in the full model. All significance levels are based on two-tailed tests. $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

transition process. In particular, the results show that innovation strategy does not transition individuals' behaviour into the cooperation capability of young firms. Instead, innovation culture appears necessary in this relationship to transition the benefits of innovation strategy into cooperation capability. Figure 2 outlines the final model identified through the nested model comparison, including path estimates.[2]

Discussion

The findings of this study explore how innovation championing behaviour influences the cooperation capability of young firms. Specifically, the first major

[2]Following a valuable suggestion of a reviewer, we replicated our analyses regression-based using the PROCESS macro. The results confirm the main and post-hoc results of our structural model equation models and are available from the authors upon request.

finding of this study (i.e., innovation championing behaviour has a positive effect on cooperation capability) emphasises the neglected role of innovation champions in shaping the development of young firms' capability to cooperate. In particular, it appears beneficial when decision-makers pursue innovative ideas, engage in network building, persisting under adversity, and take responsibility for new ideas when they aim to build dynamic capabilities to generate successful innovations. The second major finding of this study (i.e., innovation culture mediates the relationship between innovation championing behaviour and cooperation capability) reveals that innovation culture is a key mediator that enables individual behaviour to unfold into a firm-level capability. Surprisingly, our post-hoc analysis revealed that innovation strategy does not directly impact cooperation capability. Thus, the third major finding (i.e., innovation strategy only mediates the relationship between innovation championing behaviour and cooperation capability by enhancing innovation culture) provides empirical evidence about the interplay of innovation strategy and innovation culture. Our results show that innovation strategy constitutes a nurturing mechanism to enhance the development of innovation culture instead of being a direct enabler of cooperation capability.

Theoretical implications

Our study sheds needed light on the emergence of cooperation capability in young firms, which has largely been neglected. We address three distinct research areas that bear several theoretical implications, as we outline below.

Individual-level origins of cooperation capability

Our paper contributes to the emerging literature on microfoundations (Açıkgöz and Günsel, 2016; Haapanen *et al*., 2018; Lawson and Samson, 2001; Nasaj, 2021). We answer recent research calls to shed more light on microfoundations by exploring the individual-level origins of dynamic capabilities in terms of cooperation capability (e.g., Bingham *et al*., 2019; Forkmann *et al*., 2018; Helfat and Peteraf, 2015; von den Driesch *et al*., 2015). While literature has claimed that the initial structure of organisational capabilities is rather unspecific (e.g., Levitt and March, 1988; Williamson, 1999), the empirical findings of our study suggest that in young firms, the specific behavioural patterns of innovation champions are at the very heart of the emergence of the central capability to cooperate. Especially in dynamic environments (e.g., technology-driven industries), where firms face high levels of uncertainty, these executives' behavioural patterns provide helpful and adaptable references for action for individual members and collectively for the firm. Therefore, consciously and/or subconsciously, innovation champions

establish helpful guidelines for action that are supportive and leave enough room to tailor the execution to the needs of a given situation (Bingham *et al*., 2019). Thus, we introduce innovation championing behaviour as an important individual-level origin for developing cooperation capability.

Transition from individual-level origins to cooperation capability

Our paper contributes to the literature on organisational strategy and culture by opening the black box of how individual behaviour transitions into firm-level capabilities (Nybakk and Jenssen, 2012; Pérez-de-Lima *et al*., 2019; Schweitzer, 2016). We answer the research call by Kohtamäki *et al*. (2018) and identify innovation strategy and culture as two crucial mechanisms for transitioning the benefits of individual behaviour into organisational cooperation capability. Furthermore, we precisely examine the roles of innovation strategy and innovation culture in the transition from individual-level behaviour to firm-level capabilities, leading to new and important intra-firm insights. Research has often referred to organisational strategy and culture as parallel mechanisms that may synchronously influence organisational capabilities (e.g., Zheng *et al*., 2010). By contrast, our quantitative examination reveals that innovation culture is essential in fostering cooperation capability, whereas innovation strategy takes a nurturing role in this transition process. In a broader sense, culture does not need to eat strategy, as these two mechanisms do not oppose each other, but culture may be supported by strategy synergistically. Our study thus underlines the necessity to understand relatively rigid strategic guidelines as potentially facilitative instead of being a sufficient mechanism to build and manage cooperation successfully. Firms, particularly those acting in dynamic environments, need a collective culture that allows the adaptive enactment of maxims and can adjust to frequently changing circumstances through cooperation capability. An organisational culture that is adaptable and future-oriented appears even more crucial in strategically important fields, such as cooperation, in which success does not rely on increasing the efficiency of repetitive learning patterns (Bingham *et al*., 2019) but in which changing, uncertain, and complex situations are the standard. Our study mirrors the interplay between innovation strategy and culture in transitioning individual behaviour into firm-level cooperation capability. We add to the understanding of the processes by explaining how specific dynamic capabilities develop in young firms (Heimeriks and Duysters, 2007; Kale and Singh, 2007; Kohtamäki *et al*., 2018; Ott *et al*., 2017). In addition, our paper transfers the categorisation of organisational design and culture to the context of the emergence of dynamic capabilities. While organisational studies have already suggested the categorisation of central organisational dimensions, such as formal organisational design and informal organisational

culture (Desantola and Gulati, 2017), the literature on the emergence of dynamic capabilities uses diverse approaches to describe and classify strategy and culture (Brettel *et al*., 2015; e.g., Ritter and Gemünden, 2003; Zheng *et al*., 2010). To the best of our knowledge, our study is the first to categorise the concept of innovation strategy (a subset of organisational design) as a formal mechanism and the concept of innovation culture (a subset of organisational culture) as an informal mechanism in the context of capability creation. This clear categorisation further helps clarify the impact and the operating principles of innovation strategy and culture.

Particularities of young firms

Our paper also contributes to the literature on the particularities of young firms (De Groote and Backmann, 2020; Deakins and Bensemann, 2019; Hogenhuis *et al*., 2017). We enhance knowledge by carving out the specifics of the cooperation capability of young firms. Despite the severe particularities of young firms (Brinckmann *et al*., 2019), studies have primarily neglected the specific characteristics of this kind of firm in their investigations related to cooperation activities (e.g., Kale *et al*., 2002; Rothaermel and Deeds, 2006; Walter *et al*., 2006). Drawing attention to these particularities is necessary to examine young firms' cooperation capability and their antecedents and consequences (Spender *et al*., 2017). Therefore, we suggest a refined conceptualisation of cooperation capability suitable for the context of young firms, as was recommended by Parida *et al*. (2017). In more detail, while literature often refers to cooperation experience and partner knowledge as essential aspects of cooperation activities, our study considers that young firms might not have (or have only limited) prior cooperation experience and partner knowledge because of their young age (Kim and Higgins, 2007; Parida *et al*., 2017). As this research field has lacked consensus concerning the underlying facets of cooperation capability in different contexts (Kohtamäki *et al*., 2018; Pollok *et al*., 2019), our paper provides an adequate conceptualisation to assess the true nature of this central dynamic capability for young firms.

Practical implications

Our study provides important implications for practitioners. Entrepreneurs that seek to develop their ventures' cooperation capabilities can draw on strategic management's deliberate learning (Zollo and Winter, 2003). Deliberate learning for capability development suggests knowledge accumulation, articulation, and codification circles. A key component here is the operationalisation of the desired capability. Here, we suggest entrepreneurs take the scientific operationalisations we have provided in this paper as a starting point for developing contextualised goal

functions in terms of cooperation capabilities. This operationalisation may serve as a guiding post in PDCA (plan–do–check–act) iterations of deliberate learnings. Based on our microfoundation perspective, instruments to fulfil the goal function of capability development address the individual employee.

First, the results indicate that the entrepreneurs' behaviour substantially shapes young firms' capabilities (Lahiri *et al*., 2019; Ritter and Gemünden, 2004), specifically their cooperation capability. Therefore, entrepreneurs should place individuals with specific behavioural patterns in charge of cooperation activities, especially those who pursue innovative ideas, build networks, are willing to take responsibility, and persist under adversity. Entrepreneurs could also incentivise and train individuals to nurture and engage in innovation championing behaviour so that these individuals foster the development of the firm's cooperation capability.

Second, our findings highlight innovation culture as an essential mechanism for developing cooperation capability. Especially for the management of young firms, which typically suffer from the liabilities of smallness and newness (Stinchcombe, 1965), knowing about the crucial mechanisms and tools to develop core competencies, such as cooperation capability, is vital. Without such knowledge, resource allocation becomes inefficient, as firms misunderstand the value of investing in organisational culture.

Furthermore, our findings suggest that innovation strategy be a supporting rather than decisive mechanism to develop firm-level capabilities. Taken together, young firms should not simply emphasise the development of innovations through strengthening a generalist innovation strategy. Instead, they should differentiate between specific strategies and emphasise those aspects of strategy that help to develop mechanisms truly at the heart of building capabilities. Firms could, for example, align an innovation strategy with factors central to innovation culture, such as the organisation's openness towards new and unconventional ideas, eagerness to experiment, and willingness to change (Sammerl, 2006). Exemplary means to do so could be providing training and conference budgets for organisational members or hosting informal networking events to exchange and present ideas, such as brown bag meetings and presentations during working time. New employees should be assigned a mentor from within the company who is considered a reference person and can convey the essential aspects of an informal innovation culture to new colleagues. Decision makers should not only provide budgets and tools to enable an innovative culture but also personally live up to an innovative organisational culture. They should exemplify innovative thinking and act in interactions with other organisational members. Thus, the practical implications of our study go beyond formal budgets and incentives and focus on strengthening informal mechanisms, which help a young firm to compete and grow successfully.

Limitations and future research

The limitations of our study offer fertile ground for future research. First, we have rigorously adhered to theoretical derivation, but our analysis draws on a sample of cross-sectional data that does not allow for interpreting causal relationships. Thus, future research could shed further light on the relationships indicated in our study by, for instance, using a longitudinal study design (Bowen and Wiersema, 1999; Sarkar *et al*., 2009).

Second, our sample exclusively relies on young ICT firms in Germany. On the one hand, this chosen focus has enabled us to control for age-, industry-and country-specific effects. This is particularly important because our research questions concentrate on a specific dynamic capability of young firms (Desantola and Gulati, 2017). On the other hand, such a focus constrains interpretation beyond dynamic industries, developed countries, and young firms, thus, limiting generalisability (Kollmann and Stöckmann, 2014).

Third, we apply the single key informant approach, commonly used in research (e.g., Walter *et al*., 2006). Although we tried to rule out common method bias by using *ex-ante* procedural and *ex-post* statistical techniques, our data may still be subjective because of single-respondent bias (Podsakoff *et al*., 2003). Kumar *et al*. (1993) argue that choosing the correct key informant can mitigate these problems (Walter *et al*., 2006). To address this concern, only individuals in decision-making positions in charge of the cooperation activities of the organisation were allowed to participate in the survey. Nevertheless, future research could confirm the robustness of our findings by applying a multiple response approach.

The contributions of this study also offer fertile ground for future research. For instance, while we introduce the behavioural patterns of innovation champions as crucial drivers of cooperation capability, other dynamic capabilities might emerge from the displayed interplay of innovation championing behaviour, innovation culture, and innovation strategy, such as R&D capability. Furthermore, while we identify innovation culture and strategy as (partial) mediators between individual-level behaviour and firm-level capabilities, more mechanisms might underlie this relationship. Future research should explore other mechanisms critical to the transition from individual behaviour to organisational capabilities. Additionally, researchers should build on our suggested conceptualisation of young firms' cooperation capability to precisely assess its actual facets and other antecedents and consequences of cooperation capability. Future research might also address the consequences of cooperation capability such as cooperation execution or corporation success, thereby taking into account the contributions of the corporation partner as cooperation success is the result of both partners and their interactions. Overall, we claim

that our study will stimulate further investigations in this up-and-coming field by indicating important and exciting avenues for future research.

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