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Strategic value contribution through speed in procurement - A capability microfoundation perspective

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ABSTRACT

In rapidly changing business environments, speed emerges as a pivotal catalyst for enhanced procurement performance and value creation. The literature, however, lacks a comprehensive conceptual treatment of speed, particularly in the procurement context. To better understand how procurement can be accelerated for improved value contribution, we explored the associated capability microfoundations. Drawing on the literature and utilising a multiple case study approach (involving 14 companies) complemented by workshops, three distinct types of speed were confirmed and elaborated upon: operating speed, strategic adaptation speed, and response speed. Further, in the context of these speed types, we gained theoretical insights into procurement acceleration. We also identified a range of microfoundations across the categories of structures, processes, technologies, and individuals, encompassing established practices such as early involvement, (de)centralisation, and use of data and analytics. We also made theoretically interesting observations on the business-driven organising of procurement for aligning with the required clock-speed, agile teams and ways of working for quick problem-solving, and organisational structures that reduce throughput time. Regarding future research, new structural and process variants must be explored from the perspectives of speed and acceleration, while recognising the dangers of the self-inflicted pathology in terms of unbridled acceleration in the face of a perceived need to survive.

1. Introduction

For procurement to become a key business enabler in the face of the recent and ongoing intensive pressure from supply markets, internal customers, and stakeholders, its processes and activities may need be acceleratedcf. Grandia and Warsen (2023); Thomas et al. (2011). The business case for such an undertaking is based on several arguments.

First, as corporate strategies become obsolete quickly, procurement must secure alignment by supporting strategy shifts, ramp-ups, and new business developments (cf. Baier et al., 2008; Eisenhardt, 1990). For example, in a retail company (which participated in this research), there was a risk of delay in the introduction of an important new consumer service, with outsourced IT element development, due to slow procurement processes. *Second*, both demand and supply uncertainty demand agile supply chains (Lee, 2002; Wieland and Wallenburg, 2012), implying the ability to react faster to changes in demand and quickly adjust the purchasing and supplier relationship management practices to respond to environmental changes, opportunities, and threats (Patrucco and Kähkönen, 2021). For example, in the context of increasing demand and material scarcity, a procurement of defence equipment manufacturer (Sioen Ballistics; see FDF, 2022) recognised the need to take swift action to secure the required materials for an imminent contract. *Third*, with increasingly quick and convenient e-commerce in our private lives, the internal customers in organisations demand similar levels of convenience and pace (cf. Vollero et al., 2021). In light of this, IBM emphasises a focus on speed-to-value in conjunction with improving its internal customer experience and speed-to-execution in its own source-to-pay process (IBM Corporation, 2022).

Indeed, we posit that speed could be one of the key levers for strategic *value contribution* in the procurement or maximisation of a firm's long-term value instead of only short-term savings (Gray et al., 2020). This lever ensures the strategic alignment of procurement, including the tasks related to its internal processes and the tasks of managing the external supplier network, particularly in contexts where a firm's strategic posture leans towards time-based advantages (Yu et al., 2022). At the same time, we consider speed to be one of the many alternative

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competitive priorities for procurement, with relative emphasis depending on a firm's strategic intent (cf. Krause et al., 2001). In some cases, speed can be a double-edged sword, as time pressure can deteriorate task performance while helping groups coordinate effectively (see Perlow et al., 2002). Nevertheless, in this research, recognising the possible need to increase the relative emphasis on speed in procurement, we focused on supporting the acceleration efforts towards a correct level, while warning organisations to avoid the self-inflicted pathology of continuous and unbridled increase of speed in the face of a perceived need to survive (Perlow et al., 2002).

The conventional, physics-based definition of *speed* – the distance travelled per unit of time – can be thus revised for the management context: "the length of time over which certain targets are achieved" (Casillas and Acedo, 2013, 17). In other words, speed is defined as d/t, where d is the distance moved or activities completed, and t is the time it takes to complete a movement or an activity. Target achievement may relate to tasks, activities, or changes in state. For organisations that strive for competitive advantage, *time* as the only measure is perhaps less meaningful compared to speed – a more appropriate focus would be on tasks or how many tasks can be achieved in an appropriate time unit to get ahead of the competition. Another related concept is the *timing* of activities, which is crucial, among others, for planning projects and investments. Nevertheless, the speed at which activities or tasks produce positive effects determines timing (Bridoux et al., 2013), thus suggesting speed's prominent role among the variety of affiliated concepts.

In the management context, emphasising task achievement when defining speed also leads us to consider the various types of speed – i.e. what kind of tasks are completed within a time unit or the kinds of tasks a firm is fast a– thus bringing nuance to the consideration of speed as a concept. In this vein, Taylorism sought to establish standard times for production tasks (see Sprague, 2007). The theory of swift and even flow for a more productive process (Schmenner and Swink, 1998) is at the heart of the lean production paradigm (see Holweg, 2007). Stalk and Hout (1990) introduced the influential strategy of time-based competition with the suggestion of several advantages accruing from the "time compression" of activities and the elimination of "wasted time in the value delivery systems" (Nanni, 1991, 208). At the industry level, the famous clock-speed measures the rate at which new products, processes, and organisational structures are introduced (Fine, 1993). Furthermore, other management disciplines have discussed associated concepts such as strategic decision-making speed (Eisenhardt, 2008), innovation speed (Markham, 2013), and "turbo-marketing" (Kotler and Stonich, 1991).

In addition to the function-specific types of speed, such as production or marketing, more general concepts, such as agility (one type of speed focused on the task of reacting or responding to sudden changes across a variety of situations; see Lee, 2004; Wieland and Wallenburg, 2012), have been extensively discussed in the operations management literature. However, the recognition of the function-based variety in speed types encouraged us to explore the phenomenon of speed in procurement. Moreover, the literature is fragmented, lacks clarity in terms of the relevant speed types, and does not inform procurement acceleration efforts.

The potential for enhanced conceptual clarity is indeed possible. For example, Phadnis (2024) noted that the concepts of agility and adaptation in the supply chain domain seem muddled, particularly in terms of speed's role in their definitions (see Weber and Tarba, 2014). Our aim of clarifying the "comprehending theory" regarding speed in procurement and offering "a qualified understanding of [this] organizational phenomenon by determining its meaning" (Sandberg and Alvesson, 2021, 499) is thus warranted.

We aimed to address the following research question (RQ): How can procurement be accelerated to improve its capability for strategic value contribution? Theoretically, we framed the phenomenon of interest using the organisational capability perspective, as capabilities allow organisations to perform key tasks and undertake changes (Helfat and Winter 2011; Teece et al., 1997). This capability-based performing of tasks may be measured using time, with the speed of performing tasks observed as capability outcomes (Eriksson, 2014; Zacharia et al., 2011). Importantly, this performing of tasks may be accelerated by reconfiguring the respective capability microfoundations – or the proximate causes or building blocks of capabilities – such as organisational structures, social processes, and individuals (Felin et al., 2012). Understanding how to accelerate capabilities through microfoundational reconfiguration is crucial from the perspective of informing the use of speed as a key lever for strategic value contribution in procurement. This framing enabled us to identify the different types of speed and their corresponding capability types and to uncover the capability microfoundations underpinning these speed types.

By establishing a literature-based framework and utilising a multiple case study approach (involving 14 companies) complemented by workshops, our elaboration of speed in the procurement context revealed three distinct types of speed: operating speed, strategic adaptation speed, and response speed. A contingency perspective was taken, as we considered the fit of the speed types with different contexts. We thus contribute to the context-specific theory (Craighead et al., 2024) on speed and acceleration by confirming and elaborating on the three speed types. Our findings advance the theoretical understanding of speed in procurement beyond specific tasks, such as accelerating time to market through supplier integration (Chenini et al., 2021; Johnsen, 2009; Perols et al., 2013) or shortening cycle times through digitalisation (Hallikas et al., 2021; Herold et al., 2023).

Building on this foundation, our primary contribution lies in unveiling a range of microfoundations (grouped into organisational structures, processes, technologies, and individual competencies) that, as capability configurations, contribute to the identified procurement speed types. These not only include established practices – such as early involvement (Suurmond et al., 2020), (de)centralisation (Rozemeijer, 2000), and use of data and analytics (Handfield et al., 2019) – but also describe theoretically interesting observations on the business-driven organising of procurement for aligning with the required clock-speed, agile teams, the ways of working for quick problem-solving, and the organisational structures that reduce throughput time. Collectively, these insights bring greater clarity to the microfoundations of procurement speed, addressing the fragmented nature of f the literature. We thus contribute with a comprehending theory by offering a nuanced understanding of speed in procurement (Sandberg and Alvesson, 2021).

2. Theoretical points of departure

Fig. 1 specifies the research framework with the key concepts and their associations. The depicted chain of concepts is based on the premise that speed types are the outcomes of using certain capabilities (cf. Eriksson, 2014; Zacharia et al., 2011). These capabilities are made of *microfoundations* (the target of RQ; Felin et al., 2012) – or, as per Fig. 1, these microfoundations may be associated with any of the generic types of capabilities identified in the established discourse, such as the operational and the dynamic (e.g. Peng et al., 2008; Helfat and Winter 2011).

Having considered the concept of speed in the introduction, we next describe our examination of the literature on speed in the procurement context to demonstrate a research gap. We also examine the literature on the association between speed and capabilities. Capability is central to our research, providing the crucial link between microfoundations and speed types (see Fig. 1). Moreover, based on the literature, we discuss the generic types of capabilities and their possible associations with speed types as capability outcomes. Finally, we discuss the literature on the capability microfoundations for speed in both the broader

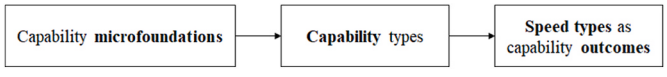

Fig. 1. Research framework.

management and more specific procurement contexts. These efforts enable an abductive research process and a theoretically relevant discussion of the results.

2.1. Literature on speed in procurement

In procurement research, though speed is mentioned in various kinds of roles and situations, it has not been comprehensively treated or understood. It has been suggested as an alternative competitive priority in procurement (Krause et al., 2001), playing an *enabling role* in the success of the procurement function and of an organisation in general. In this vein, speed has beneficial effects on the global sourcing decision-making process (Francioni and Clark, 2020), and supplier process integration accelerates product development in terms of time to market (e.g. McGinnis and Vallopra, 1999; Perols et al., 2013). Furthermore, fast procurement decisions are crucial due to various factors, such as volatile prices, fluctuating demand, and frequent supply chain disruptions (e.g. Brandon-Jones et al., 2014), and this has been suggested to directly impact a firm's success, affecting costs, input quality, innovation, flexibility, and risk (Kaufmann et al., 2012).

Regarding *enablers or constraints for speed* in procurement, Hallikas et al. (2021) have shown that e-procurement and supply chain digitalisation drive shorter cycle times. Procurement decision-making speed can be accelerated by the strategic and lateral integration of purchasing (Kaufmann and Gaeckler, 2015). In contrast, while time is an important criterion when organisations source services for critical construction projects, new product design, enterprise resource planning software, and so forth, it has been shown that relatively more complex service procurement requires more time compared to goods procurement (Wynstra et al., 2018).

The literature has also covered speed *in the context of suppliers*. The need to be faster pressurises suppliers to make their processes more flexible and reduce the cycle time (Ulaga and Eggert, 2006). Studies have focused on situations in which buyers put time pressure on suppliers for fast delivery (Thomas et al., 2011). Time pressure exists when "there is a perception of insufficient time to complete a task and an awareness of the potential negative consequences of missing a deadline that induces feelings of stress and a need to cope with the limited time constraint" (Thomas et al., 2011, 415). Further, the pressure to be faster negatively affects contracting in buyer–supplier relationships (for instance, by reducing negotiators' ambitions and goals). Li and Shao (2015) have suggested time-based incentives for suppliers to speed up their activities, linking procurement to time-based advantage of the firm.

Prior studies, observations from practice (see the introduction), and practitioner literature highlight the importance of speed in procurement. However, the literature lacks a comprehensive and in-depth treatment of speed in the procurement context, and the empirical work "on time compression" (Mols, 2022, 323) is extremely limited.

2.2. Types of organisational capabilities and speed

Research on the role of capabilities in organisational performance has identified and elaborated on the generic types of organisational capabilities: *operational* (also ordinary or "static"; Peng et al., 2008) and *dynamic* capabilities (Helfat and Winter 2011). While there is little disagreement regarding the definition and nature of operational capabilities for performing activities reliably (Helfat and Winter 2011), the discussion around dynamic capabilities, which essentially allow firms to alter their resource base (Eisenhardt and Martin, 2000), is more nuanced, and diverging opinions can be found in the literature.

Peteraf et al. (2013) made two contrasting positions salient regarding whether dynamic capabilities may be a source of competitive advantage. While the seminal work of Teece et al. (1997) introduced this fundamental premise, Eisenhardt and Martin (2000) distinguished between dynamic capabilities as well-understood and replicable "best practices" for undertaking changes in moderately dynamic environments or as more unstable "simple rules and processes" that enable greater responsiveness in high-velocity markets (Eisenhardt and Martin, 2000). "The former – which involves continuous improvements and the use of lean methods for organisational development (Anand et al., 2009) and is a more replicable, routinised, or, indeed, stable type of capability (Wenzel et al., 2021) – may lack the potency for competitive advantage (Eisenhardt and Martin, 2000). The latter, which may manifest as rapid and more improvised ad hoc responses to unexpected or unusual supply chain disruptions (Müller et al., 2023; Munir et al., 2022), has the potential for greater competitive advantage due to its non-routinised nature and, consequently, the difficulty of cloning it (Müller et al., 2023; Teece et al., 1997). We considered each of these capability (sub)types in the ensuing empirical analysis.

When associating these generic types of capabilities with speed, the literature offers valuable insights. For example, Eisenhardt (1990) has been a vocal proponent of fast strategic decision-making. Speed appears to be associated with high organisational performance, particularly in high-velocity environments, involving both the pace and predictability of change (Judge and Miller, 1991). Firms with appropriate sensing and seizing activities for dynamic capability can better capture opportunities in fast-changing markets and handle rapidly developing technologies (Day and Schoemaker, 2016). Netz et al. (2020) expanded the examination of fast strategic decision-making to contexts in which unforeseen and potentially threatening and disruptive incidents imply extreme time pressures for decision-makers. Fast recognition and decision-making regarding events and incidents, drawing perhaps particularly on unstable dynamic capabilities, may be considered an important area of organisational speed – here coined as *response speed* – and matching with highly dynamic environments (Eisenhardt and Martin, 2000). This type may also be associated with the established concept of agility (e.g. Patrucco and Kähkönen, 2021), although it may be limited to the operation of existing processes and structures for swift responses (Lee, 2004), suggesting a variety of capability types as possible contributors to response speed as an outcome.

Further, Brown and Eisenhardt (1997) suggested that the ability to change organisational structures both frequently and rapidly is a core capability in high-velocity environments. Fast organisational adaptation may occur by accelerating the processes that contribute to adaptation, such as product innovation (Eisenhardt and Tabrizi, 1995). Adaptive transformation via reorganisation allows organisations to handle both opportunities and threats (Day and Schoemaker, 2016). In the supply chain management area, chains should offer fast deliveries and responses and, according to Lee (2004, 2), "become better faster than their rivals" through adaptation. Consequently, *adaptation speed* (cf. Teece, 2007) is required in supply chains and, naturally, in focal firms as well. Regarding the enablers of swift adaptation, depending on the level of dynamism in the environment (Eisenhardt and Martin, 2000) and whether a reactive or more systematic and measured approach to adaptation is needed, we can perhaps detect traces of both unstable dynamic capabilities (as simple rules and processes and also replicable) and stable dynamic capabilities (as best practices).

Regarding operational capabilities, the literature shows that the management of fast investment projects, or an "intrinsic speed capability", allows firms to enjoy revenues earlier (Pacheco-de-Almeida et al., 2015, 159), making speed essential. Speed has also been observed as a relevant perspective in evolutionary processes, such as the internationalisation of firms (Casillas and Moreno-Menéndez, 2014) and operational processes, such as delivery (Handfield and Pannesi, 1992), innovation and new product development (Chen et al., 2010), and service operations (Lewis and Brown, 2012). The organisational capability to swiftly execute projects and processes with greater *operating speed* has been thus identified as relevant, and the associated acceleration draws on, for example, the concepts and methods of lean (e.g. Holweg, 2007). These notions suggest that the role of stable dynamic capability as a best practice is a metacapability for reconfiguring operational capabilities for

greater speed (Eisenhardt and Martin, 2000).

Summarising this section, we conclude that the literature conveys the idea that various capabilities – operational and dynamic – can produce different types of speed as capability outcomes, such as response, adaptation, and operating speed. The outcomes' nature depends on the respective configuration of the capability in terms of the microfoundational building blocks (cf. Roscoe et al., 2019). Although the literature suggests some natural associations between the above-identified capability types and the speed types (e.g. dynamic capabilities with adaptation speed, and operational capabilities with operating speed), not all the associations are clear (e.g. in terms of response speed). We elaborate on these associations more explicitly in the procurement context, supported by the ensuing empirical analysis.

2.3. Capability microfoundations for speed

The research on capability microfoundations focused on locating "the proximate causes of a phenomenon (or explanations of an outcome) at a level of analysis lower than that of the phenomenon itself" (Felin et al., 2015, 586) – simply put, locating the building blocks of capabilities. Felin et al. (2012) offered a general typology of capability microfoundations, including behavioural and psychological foundations and the characteristics and abilities of *individuals*; the methods of coordination and integration as *processes*; and the organisational and institutional constraints and organisational forms as *structures* (see also Teece, 2007, Fig. 2). In the following, we discuss the examples of microfoundations with which capabilities may be configured for speed (cf. Roscoe et al., 2019).

In terms of *individuals* as the capability microfoundations for speed, the literature suggests that individuals' experiences and qualifications may be leveraged for achieving faster decision-making when teams disagree (Eisenhardt, 1990; Chen et al., 2010). Some level of intuition may also help managers make effective decisions in fast-paced environments where rapid decision-making necessarily outperforms more measured deliberations (Miller and Ireland, 2005). Further, organisations could learn to speed up manufacturing by managing knowledge retention and transfer among their employees (Argote and Epple, 1990). Finally, entrepreneurial orientation allows start-ups to internationalise rapidly (Li et al., 2015).

The procurement literature has largely discussed skills, capabilities, and learning as prerequisites for professional purchasing management – for example, in the context of sustainable supply chains (Schulze and Bals, 2020) – as individual-level foundations of organisational performance (Bals et al., 2019), or as an analytics capability in procurement (Öhman et al., 2021). Tassabehji and Moorhouse (2008) presented a taxonomy of skill sets needed in procurement tasks and classified them into procurement-specific skills and managerial skills. Though the pace of change – for example, related to technologies – has been acknowledged as a driver for skills development, the procurement literature has barely focused on individuals as a microfoundational element in achieving speed.

Regarding the *process* dimension, a sizeable body of literature suggests practices for time compression and waste elimination (for example, in the spirit of lean methods) (Chen et al., 2010; Hopp and Spearman, 2021; Mason-Jones and Towill, 1999). The formalisation of practices allows the fast execution of, among others, product development processes (Chen et al., 2010); however, this only applies to routine tasks and processes (Baum and Wally, 2003). In high uncertainty contexts – such as in the early phases of product development processes – iteration before stabilisation and the locking in of designs result in overall shorter cycle times (Chen et al., 2010). Finally, decision-making may be accelerated through data and analysis to generate decision alternatives (cf. Eisenhardt, 1990; Judge and Miller, 1991), which may also contribute to vigilance or the ability to see sooner and act faster (Schoemaker and Day, 2021).

In the procurement context, the literature has addressed the need for speed in processes to a limited extent, although some findings have highlighted the impact of technology adoption on the processes' speed. For example, investments in procurement technology, such as e-procurement and supply chain digitalisation, respond to the pressure to reduce time waste and enable faster cycle times (Hallikas et al., 2021). Moreover, digital tools such as EDI and e-procurement platforms reduce the human element in communication, improving speed (Larson and Kulchitsky, 2000).

Regarding organisational *structures*, according to Kotler and Stonich (1991), customer-driven organisational structures and incentives can enable rapid time to market, and flat hierarchies with employee involvement in problem-solving may reduce throughput times (Tu et al., 2001). Goal clarity shortens the product development cycle time (Chen et al., 2010) and leadership commitment and accountability enable vigilance for rapid reactions (Schoemaker and Day, 2021). Smartly balancing the degree of centralisation may improve strategic decision speed: Strategic management should be centralised for synergy and coordination, whereas operational management should be decentralised for proximity to stakeholders (Baum and Wally, 2003). Finally, integration across internal functions and externally with suppliers shortens product development cycle times and reduces the time to market (Chen et al., 2010; McGinnis and Vallopra, 1999; Suurmond et al., 2020). Involving procurement in strategic planning processes has also been shown to reduce the decision-making time (Kaufmann and Gaeckler, 2015).

In the procurement domain, the literature underscores the organisational structures' impact on new product development time and the time to market. The key structures include supplier integration in product development (Johnsen, 2009; McGinnis and Vallopra, 1999; Perols et al., 2013; Suurmond et al., 2020), purchasing involvement

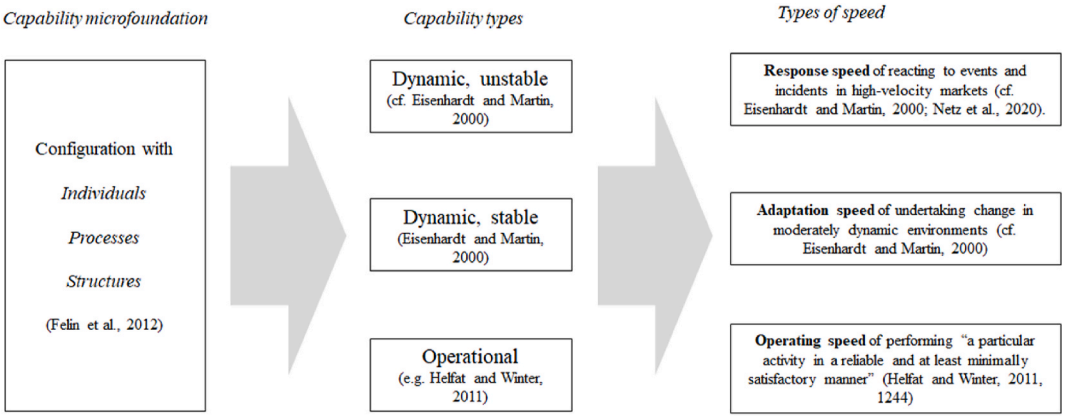

Fig. 2. Expanded research framework.

(McGinnis and Vallopra, 1999), and the purchasing–marketing functional integration (Gonzalez-Zapatero et al., 2017). Additionally, strategic procurement and supplier integration significantly affect manufacturing processes (Chenini et al., 2021). The nature of supplier relationships is also important, with cooperative relations associated with improved lead-time performance (Larson and Kulchitsky, 2000). Furthermore, both strategic and lateral purchasing integration positively influence the procurement decision-making speed (Kaufmann and Gaeckler, 2015).

We conclude that analysing microfoundations offers useful perspectives on speed and acceleration. To summarise, using the basic structure in Fig. 1, we made theoretical observations on capability and speed types and the foundational role of capability microfoundations. Fig. 2 illustrates our expanded research framework.

3. Methods

To identify the underlying microfoundations for accelerating procurement value contributions, we employed a two-stage qualitative research approach. Our interest in this phenomenon started with our observations and discussions with procurement managers who raised the issue of how to be faster in procurement. In the *first stage* of research, we sought to investigate the areas in which procurement must be faster – that is, the types of speed, thus confirming the *a priori* observations from the literature, and also, the preliminary underlying microfoundations for accelerating capabilities (RQ). In this stage, we did not seek to differentiate and link microfoundations with specific types of speed but to identify an initial set of microfoundations. This endeavour was based on a multiple case study (comprising 14 companies), which was chosen because our phenomenon of interest remains largely unexplored in the literature. Through this research strategy, we hoped to better understand the phenomenon and, since case studies offer opportunities for theory-building (Ketokivi and Choi, 2014), develop theories that reflect real-world dynamics and provide managerially relevant knowledge (Yin, 2018). This strategy also aligned with our practice-driven approach, as our interest in fast procurement emerged from our observations and engagement with industry.

The second stage involved further data collection through workshops to validate the findings from the case studies and to explore the associations of specific microfoundations with different types of speed (RQ). We identified the initial capability microfoundations using the data from the first stage, but we could not link them with the speed types, necessitating additional data collection. Through the workshops, we collected data from a sufficient number of respondents, engaged in interactive dialogues, and gained a more nuanced understanding of how various microfoundations relate to different speed types in procurement. Moreover, in the workshops, we validated our findings from the case studies. By discussing our preliminary results with practitioners and experts, we confirmed the relevance of the *a priori*-identified speed types and the corresponding microfoundations that emerged from the data. We thus refined the theoretical concepts and ensured that they were grounded in practical reality.

3.1. Stage 1: multiple case study

3.1.1. Sampling and data collection

To select the case organisations, we applied purposeful sampling criteria. For the *initial sample*, we aimed for cases in which the focal phenomenon would likely occur intensively (Patton, 2002, 2014). With this sampling strategy, we searched for "excellent and rich examples of the phenomenon of interest" (Patton, 2002, 234). We contacted companies with which we had previously worked, as we knew they could provide rich and in-depth data for our initial sample. From these companies, we selected those that met two sampling criteria. First, the companies needed to operate in industries where high clock-speed played a critical role. Companies in such contexts tend to face rapid changes in technology, market demands, competition, and so on, urging faster procurement. Second, the companies were required to prioritise procurement and utilise advanced procurement methods. Such companies are likely to possess specialised knowledge and expertise, allowing research to capture potentially relevant insights into the advanced practices that enable fast procurement.

We identified eight case companies (Table 1). After analysing the initial dataset, we assessed saturation by cross-tabulating a set of preliminary emergent themes against the cases and observing the appearance of new themes on a timeline. We did not reach saturation, as new themes appeared with the latest addition of cases; therefore, in line with the recommendations of Gioia et al. (2013), we concluded that more variation was needed to increase our findings' richness and relevance.

Next, we followed the maximum variation sampling approach (Patton, 2014) to include more varied and richer examples of the phenomenon of interest. The maximum variation strategy aims "to select heterogeneous examples throughout the possible range" (Patton, 2002, 283). In line with this sampling strategy, we aimed to cover a wide range of contexts and included organisations from several industries with operating logics that differed from those in the first round of data collection (e.g. retail, telecom, and public organisations). Studying a variety of industries can offer a comprehensive understanding of the range of issues and practices in (fast) procurement, as different industries face unique procurement challenges and employ various solutions.

The more diverse final sample of 14 organisations enabled us to reach saturation and obtain a rich picture of the types of speed and microfoundations for making procurement faster. Table 1 provides an overview of the selected case organisations. Most of the case organisations are multinational companies (MNCs); however, some are more regionally oriented, and the public organisation is naturally very locally oriented (city). All the respondents are based in organisational subunits located in Nordic countries.

Interviews were our primary data collection method. We sought out interviewees at the chief purchasing officer (CPO) level, as we expected such individuals to possess a good overall picture of the procurement function and its requirements, including their organisations' capabilities. We supplemented the interview data with secondary data, such as company documents (e.g. procurement guidelines) and company web pages, which provided background information about the companies under study and the context in which they operate. This information includes the organisational structure and strategic priorities, which could inform and enrich the primary data we collected through interviews. We used a semi-structured interview guide that covered the following areas: the overall role of speed in procurement, its importance and measures, the development needs, the situations that demanded speed, and the ways to enable and build speed. All the three researchers in the research group participated in the interviews, which were conducted between summer 2021 and spring 2022 using videoconferencing tools and lasted between 31 and 50 min.

3.1.2. Data coding and analysis

We performed data coding and analysis to understand the types of speed in procurement. The interviews were recorded, transcribed, and subsequently coded, and the secondary data was scanned for preliminary insights and background information.

Our analytical procedure involving the dataset of 14 cases comprised two coding rounds. We first analysed where or in which tasks procurement was or should have been faster (the types of speed), followed by an analysis of the microfoundations of capabilities for speed. The analysis process, described below, involved at least three iterative cycles in both rounds and discussions between the researchers using Miro, an online collaboration tool. The potential differences regarding coding were resolved through reflexive discussions (cf. Saldaña, 2021).

To observe the *types of speed* in procurement, we first coded the transcribed interview data using in vivo coding (Saldaña, 2021). The

Table 1
Overview of the case companies.

Company acronym	Industry	Turnover	Interview duration (min)	No. of participants in the validation workshop	Interview round	Job titles of respondents
Auto	Automotive	570 M€	32	0	1	CPO
Pharma	Pharmaceuticals	1 Billion€	43	0	1	Director, Souring and Supply Chains
Engine	Engineering and manufacturing	1300 M€	44	1	1	Unit Sourcing Manager
Bakery	Food	75 M€	46	0	1	Global Procurement Manager
Mineral	Minerals and metals processing	1.3 Billion€	48	1	1	Director, Procurement
IndMach	Industrial machinery	4 Billion€	41	0	1	Director, Ecosystems
ComSec	Communication and security	144 M€	33	1	1	Head of Global Sourcing
Marine	Maritime	220 M€	31	0	1	SVP (Supply Chain & Global Operations)
Retail	Retail	12 M€	48	1	2	Director; Head of Indirect Procurement
City	Municipality	5.4 Billion€	50	2	2	CPO (Procurement Director); Procurement Manager; Development Manager
EnvTech	Environmental technology	58 M€	34	1	2	Vice President, Supply Chain & Sourcing
Food	Food	2 Billion€	49	1	2	Head of Operations
AgriMach	Agricultural machinery	314 M€	45	1	2	Director, Purchasing
Telecom	Telecommunications services	1167 M€	49	0	2	CPO, Vice President

codes were then organised into 38 first-order concepts that closely reflected the terminology used by the informants (cf. Gioia et al., 2013). This round was inductive. The concepts were further grouped into 11 s-order themes based on the theoretical realm, potentially helping us explain the phenomena in the data. The final step on the ladder of abstraction involved identifying the affinities and linking the second-order themes to three theoretically relevant aggregate dimensions. The appropriateness of organisational capability types as a theoretical lens emerged during this iterative coding process, as we abductively matched the empirical findings with the literature (Dubois and Gadde, 2002). This abductive "matching" was influenced by the theoretical body of knowledge regarding the types of capabilities and their association with speed (Fig. 2) (cf. Eisenhardt and Martin, 2000; Peteraf et al., 2013; Teece et al., 1997). Indeed, in line with Risi and Wickert (2017, 624), the literature "supported the research process, [but] did not determine our interpretation of the empirical data".

For instance, we identified five first-order codes (fast and agile reaction to supply market events (threats), fast informing about price changes, fast reaction in crisis situations, fast reaction to quality problems, and fast response to delays), all of which illustrated the need for rapid reactions or responses to supply market threats. We coded this second-level theme as "response to supply-side incidents: threats". When new rounds of coding did not lead to distinct changes and the themes began to repeat, we used a similarities and differences approach and abductive matching to further aggregate the themes. For example, the above-mentioned response to supply-side incidents was assessed as relating to the more general theme of procurement response speed. Table 4 shows how the analysis progressed from raw data to more general terms and theoretical concepts and includes empirical evidence in the form of quotations.

Next, we applied a near-identical procedure to code the preliminary *capability microfoundations for speed* in procurement. We recoded the entire dataset according to the three predetermined dimensions of the capability microfoundations: structures, processes, and individuals (Felin et al., 2012). Given the significance of technology in the analysis, it was elevated as the fourth dimension. Forty-seven first-order concepts were formed across these four dimensions (e.g. the number of approvals needed) and were further aggregated into second-order themes (e.g. flat hierarchy) and grouped under 12 third-order theoretical aggregate dimensions (e.g. organisational forms). This stage's outcome was the preliminary data structure of capability microfoundations, divided into the four dimensions of structures, processes, individuals, and technologies (see Appendix A). Notably, the coding did not yet seek to differentiate and link microfoundations with specific types of speed.

3.2. Stage 2: workshops

In the second stage, the researchers organised two workshops for procurement practitioners to (1) validate and elaborate on the 12 earlier-identified aggregate dimensions of microfoundations and (2) differentiate and link them to specific types of speed in procurement. The first workshop was organised in June 2022, and the second in September 2022. From 31 organisations, there were 67 participants, representing various industries and sectors, such as engineering and machine building, IT and financial services, food and chemical processing, and consumer goods manufacturing and retail. Further, they had various roles in their organisations, with most of them in managerial roles, such as head of sourcing, CPO, sourcing managers, and category managers. Some of them were buyers, category buyers, or consultants. The participant details are shown in Appendix B. By bringing together participants from different industries and organisational levels, we aimed to obtain diverse insights and perspectives that we hoped would enrich our study.

Both workshops followed the same structure and lasted one and a half hours. We first presented our preliminary findings from the multiple case study, offering participants an understanding of the three types of speed in procurement and the concept of capability microfoundations. Next, we conducted an interactive data collection session to connect the previously identified microfoundations of capabilities to specific types of speed in procurement. An online audience engagement platform (Wooclap) was used for data collection. We asked the participants to submit short entries describing the building blocks or elements of each type of speed from their perspectives. The following presents the example entries linked to adaptation speed: "personal ability to adapt to a changed situation"; "tolerating uncertainty, solutions are not known in advance but discovered through trial and error"; "attentive, adaptable"; and "open to new ideas" (second-order theme: the characteristics of individuals). Thereafter, the participants were divided into small groups of three to four to discuss their insights and share their thoughts with the rest of the participants.

In the analysis phase, we coded the microfoundations for each type of speed separately. Where relevant, we used the existing second-order themes and third-order aggregated dimensions but also allowed new codes to emerge. Through this process, we identified a new aggregate dimension (environmental scanning) and refined the existing ones. In total, our data structure included 13 aggregate dimensions of microfoundations.

To ensure the trustworthiness of the research results, we used the criteria provided by Lincoln and Guba (1986) to design and guide our

data collection and analysis procedures (see Appendix C).

4. Analysis and results

4.1. Types of speed in procurement

Next, we focus on the results regarding the types of speed in procurement. Compared with the *a priori* identified types of speed, the data appears to confirm (see Table 2) the need for speed in procurement in terms of *responses to incidents, strategic adaptation,* and *operating* procurement tasks (see Fig. 2). Nevertheless, our data allow us to elaborate on speed in the procurement context as follows.

Starting from the top, Table 2 depicts the evidence on the need for fast *response* and reaction to specific, immediate, and time-limited needs (cf. Müller et al., 2023). The data contains observations of various *supply-side incidents* that drive the need for responses, such as price movements creating both opportunities and threats, changes in global markets, and rapidly evolving supply disruptions (e.g. due to the COVID-19 pandemic). In contrast, *demand-side incidents* may be associated with unexpected changes in internal or external customer demand or item specifications. On the one hand, our data suggests that these incidents trigger varied responses –expediting delivery, securing additional supplier capacity, and increasing the volume of orders for existing products – that exploit the existing resource base and routines and therefore draw on fast operational capabilities. On the other hand, our data shows that responses may involve *altering* the resource base with a fast dynamic capability (Eisenhardt and Martin, 2000) or reconfiguring the supply network (cf. Srai and Gregory, 2008) by, for example, correcting a supplier's faulty processes, adjusting product specifications, or diversifying from a single source to multiple sourcing.

Interestingly, the dynamic capabilities associated with these resource-altering responses appear to be more saliently associated with the stable kind (routinised), as the respondents emphasised defined processes for reactions and detecting weak signals, as well as preparing business continuity plans in advance. In contrast, we also observed unstable dynamic capabilities, as some respondents suggested that the use of defined processes should be based on the value they add, and that there should be a mandate to modify procedures in fast-evolving situations, suggesting room for improvisation in exceptional circumstances (non-routinisation). Furthermore, the COVID-19 pandemic context demanded semi-structures with some ad hoc and short-term elements (cf. Brown and Eisenhardt, 1997), such as crisis teams.

The capabilities for fast response speed may be thus associated with *both the operational and the dynamic capabilities,* the latter appearing either as defined and *stable* or *unstable* and better fit for improvisation. The context of the research, as the highly dynamic pandemic environment of shifting demand–supply balances and sudden bottlenecks in the supply chain, most likely brought out this variety in the observed capabilities. We hence observe that *response speed* in procurement draws on both operational and dynamic capabilities (stable and unstable) for the prompt management of supply-side and demand-side incidents, depending on the extent of the required response and the dynamism of the environment.

Second, the data revealed the need for fast *strategic adaptation* in procurement (Table 2; cf. Phadnis, 2024). For example, we observed a need to swiftly implement lasting changes in organisational structures over time to align with the changing priorities of a firm or changes in the supply market. Similarly, we discovered the need for fast procurement in the uptake of new technologies, such as the best-of-breed tools for spend analytics or robotic process automation (cf. Colombo et al., 2023). In contrast to the previously discussed response speed, these needs are not immediate but rather driven by recurring events, suggesting the need for long-term change. Hence, the associated assessment and implementation may be aligned or constrained by the organisational rhythms in decision-making, such as the strategy or annual accounting cycles (Ancona and Chong, 1996; Schmitt and Klarner, 2015). For example, even in the dynamic COVID-19 pandemic context, our informants talked about "organising procurement quickly in this new normal and establishing new decision-making processes", suggesting a gradually developed perception about what the new *normal* is and how organisations should adapt for it, with expectations of some degree of permanency.

Here, the nature of the dynamic capability for change is more akin to the stable best-practice kind with routinisation and thus fits a *moderately dynamic environment* (Eisenhardt and Martin, 2000). Defined processes are required in this context, as the intended changes may be costly and, indeed, more strategic in nature, implying efforts to plan adoption carefully, even in the face of relatively rapid technological advancements. In summary, stable dynamic capabilities in procurement contribute to fast *strategic* adaptation as an outcome in the context of recurring events driving long-term change. In moderately dynamic environments, we thus found that *strategic adaptation speed* in procurement draws on stable dynamic capabilities for fast (re)organisation and technology adoption in the long term.

Third, operating speed relates to, among others, typical sourcing tasks, such as tendering, contracting, and operative buying processes. However, developing specification with internal customers could take the most time in the fundamental process of procurement. Furthermore, we found the importance of speed in the other processes of the procurement function in terms of strategising, category management, and analytics for decision-making support, suggesting an increasing frequency of strategic planning in the dynamic context. Further, suppliers should be fast in terms of their processes – for example, by making capacity readily available or designing the supply network for supply base proximity – and thus match the clock-speed of the buying organisation.

We also noted two interesting *contingencies* regarding operating speed. The data suggested the importance of speed in new task situations, where managers encounter unfamiliar tasks that might be particularly prominent in ramping up new business areas or start-ups, a context with a high degree of *task uncertainty due to the novelty* of items (e.g. new requirements or unknown solutions to problems), suppliers (e.g. new or unused suppliers), and markets (e.g. new geographies; cf. Busse et al., 2017). High task uncertainty requires high information processing, which may be time consuming. Similarly, as procurement becomes more involved across the frontier areas of spend, there is more demand for it in solving strategic problems (for example, in the context of business development). According to our data, in some cases, procurement has proceeded to the supply market with loose or open specification, as the internal customers did not clearly identify the needed solutions. To avoid hindering strategic business development, procurement must deal with uncertainty in specification and quickly source novel solutions, thereby achieving strategic relevance.

Aligned with the concept of operational capabilities (Helfat and Winter 2011), our data thus pointed to speed as an attribute of a wide range of processes and tasks in procurement and, at a higher level, operational capabilities. We therefore observed that the *operating speed* in procurement draws on operational capabilities across the procurement function and its suppliers, particularly in the contexts of novelty-driven task uncertainty and strategic business development.

4.2. Microfoundations of capabilities for speed in procurement

4.2.1. Organisational structures as microfoundations

In terms of organisational structures (Felin et al., 2012), we observed three aggregate dimensions of the microfoundations of capabilities for speed in procurement: organisational linkages, organisational forms, and organisational and institutional constraints (Appendix A). First, *organisational linkages* – defined as "those that connect actors with different job responsibilities in an organization, within or across units, through communication and coordination" (Taylor and Helfat, 2009, 721) – were observed in our data in the form of (1) well-functioning support functions, (2) links with top management, (3) cross-functional collaboration, (4) communication channels, and (5) external network

Table 2
Data structure: Types of speed in procurement.

	Second-order themes	First-order concepts	Example quotations
Response speed	Response to supply-side incidents: Opportunities	Fast and agile reaction to supply market events; fast opportunity capture with low market prices	"There are situations when the price level is clearly below average, and then we should have a capability to react, to be fast and flexible and take that risk in a way". [FoodM] "How quickly do we respond to changes in global market situations and how well are we able to respond to them? This is critical for survival". [Pharma]
	Response to supply-side incidents: Threats	Fast and agile reaction to supply market events (threats); informing about price changes; reaction in crisis situations; reaction to quality problems and response to delays	"Customers' needs change and evolve, and sometimes they may change their minds during a project, which means we need to react to changes in customer needs. In those cases, we must be fast". [Engine] "Rapid response to increased customer demand for existing products is essential". [ComSec]
	Response to demand-side incidents	Fast reactions to increased demand for existing products; response to changes in specifications; response to strategy change	"We need to be alert because prices have risen and are rising everywhere, in materials, components, and logistics. Procurement needs to be quick to react and inform the rest of the organisation about changes". [EnvTech] "We monitor both availability and price because it is crucial to be able to quickly react to the risks present in the world. We cannot wait to read about it in the newspaper, we need to have a view. We have a tool called XX that allows us to see what is happening". [AgriMach]
Strategic adaptation speed	For (re)-organisation	Fast implementing organisational changes; reorganisation to the "new normal"	"It is important for us to organise procurement quickly in this new normal and establish new decision-making processes". [Mari] "Organisational changes are too slow. This affects performance because organisational change always immobilises a certain part of the organisation". [AgriMach]
	For technology adoption	Fast implementation of robotics, tools and systems, and leveraging digitalisation and data analytics	"We still face the challenge of utilising digitalisation and quickly making use of data. I still wish for a crystal ball that would provide me with all the information I need in one place". [FoodM] "We are not fast enough in implementing tools and systems". [Marine]
Operating speed	In the general sourcing process	Fast contracting; determination of specifications; investment approval; negotiations; RFQ process; sourcing process and turnaround in tendering	"If the person who needs the service or product hasn't really figured out their actual need or specified the requirements and conditions, that's what actually takes the most time in this entire process". [City] "If we had data transfer systems supporting, we could run the RFQ process with minimal bureaucracy, including documentation and approvals. We could then provide the data to the suppliers so they can offer us their products and achieve agility". [Engine]
	In a new task situation	Fast formation of a new supplier network; involvement of capable suppliers; sourcing new components, items or services; start and scale-up with start-ups; supplier discovery and onboarding; switch between key technology providers	"If something new is needed, we need to have the necessary supplier quickly at hand, with contracts and negotiations already in place". [Auto] "Whether it's about introducing new products, making changes to current ones, or changes in current supplier network or finding a new supplier, speed is crucial. When a new requirement for a customer delivery comes in, it doesn't take long before we are asked what the procurement has accomplished". [Engine]
	In solution generation	Fast problem-solving; solution reconfiguration by suppliers; solution sourcing for loosely specified needs; technology probing; total solution generation	"Increasingly, stakeholders don't give us precise specifications such as 'procure this and this component'. Instead, they present us with challenges, and procurement needs to be able to quickly find suppliers who can solve them". [Pharma] "More and more often at the start of the process, it is not possible to figure out exactly what's going be procured at the end. Rather, if and when issues pop up, we try to tackle them quickly along the way". [Retail]
	In operative buying	Fast operative buying and planning data sharing with upstream tiers	"If we talk about operative buying, it needs to be very responsive to the needs in our production at the moment". [FoodM] "We have been successful in speeding up the processes of operative buying". [ComSec]
	In suppliers' processes	Fast supplier delivery and suppliers' processes	"The supplier's capacity must be available immediately or at the time it is needed". [Mineral] "In the service business, speed is always present. Suppliers must be close to our customer base where we have maintenance needs". [IndMach]
	In other processes of the procurement function	Fast strategy and category management process; data mining and analytics for supporting control and decision-making	"The implementation of the strategy should be fast. If we have a proactive strategy and then reactive issues come from the market, the question how we can balance it so that the proactive implementation of the strategy is not forgotten". [Marine] "Ten years ago, it would have taken an enormous amount of time to collect the data needed to steer the procurement. Now, it can be obtained with the click of a button". [Retail]

linkages with suppliers (see the data structure with quotes in Appendix A).

Furthermore, according to our data, the required organisational linkages differed across the types of speed in procurement (see the sample quotes in Table 3 with summaries). For *response speed*, the respondents emphasised collaborative responses and open communication through pre-agreed channels, with a risk- and change-focused communication agenda, whereas the strategic role of procurement and broad dialogue with stakeholders paved the way for fast *strategic adaptation* – perhaps as a means of legitimising change, such as digital transformation. *Operating speed* was achieved with links with specific internal customers and suppliers to understand demand and communicate needs with key suppliers. Overall, collaboration and communication through organisational linkages appeared to be important microfoundations of speed.

Second, we identified specific *organisational forms* (Felin et al., 2012) as being associated with procurement speed (see the data structure with quotes in Appendix A). For example, role clarity in cross-functional settings was perceived as improving timely action. Flat hierarchies in organisations, with fewer required approvals and delegated decision-making, were perceived to speed things up. Dual or multiple supply sources as external network forms were perceived to create redundancy for resilience and allow faster resolution of failure modes.

Interestingly, our data considered two key organisational procurement issues and associates them with speed. First, procurement (de) centralisation is a prominent topic in the literature (e.g. Rozemeijer, 2000; Trautmann et al., 2009), and from the perspective of speed, our data pointed to the benefits of hybrid organisations. For example, hybrids enable rapidly finding strategic synergies (e.g. with expertise) on the one hand and responsiveness and swiftness to operationally cope with local procurement development needs and variations in pandemic conditions on the other. Second, our data emphasised business orientation to be an organising principle for speed, suggesting the need to close the gap between category management structures and internal customers (i.e. business partnering) for swift responses to the specific needs of the business and projects. Our data also suggested that, in corporations with multiple business areas, clock-speed could vary significantly across units and that procurement might need to dedicate separate subunits to these areas to align their own clock-speed and capabilities appropriately.

Again, the emphasis of these microfoundations varied according to the speed type (Table 3). For *response speed*, the agile (quick) formation of teams across organisational silos, clear roles and responsibilities, and a combination of delegated decision-making with a flat organisational hierarchy and centralised expertise were deemed beneficial. In the domain of *strategic adaptation speed*, flexible problem-driven team formation with agile principles (here, agile refers to the project management paradigm and its associated principles; e.g. Glaiel et al., 2014) and readiness to change supplier networks supported adaptation. In terms of *operating speed*, clear and defined responsibilities and a mandate for action at lower hierarchical levels sped up execution, along with collaboration-enabling organization.

Third, *organisational and institutional constraints* (Ingram and Clay, 2000) were also perceived to be associated with procurement speed (Appendix A). In this context, organisational culture (Allaire and Firsirotu, 1984) covers aspects such as the implied ways of working or learned practices, which may in some cases slow things down if the practices are not aligned with the clock-speed of the internal customers. Further, our data emphasised rules for control – such as organisational goals, clear corporate strategies and expectations, and regular control meetings for project steering – to reduce ambiguity and enhance goal clarity for reduced lead times. Finally, resources seemed to be key organisational constraints, particularly in terms of people, highlighting the need for planning and workload management.

The types of speed again require different microfoundations (Table 3). *Response speed* draws on a culture of acceptance of failure and talking about risks, control through joint vision, target setting, and workload management to ensure adequate time for daily tasks. In contrast, *strategic adaptation speed* is enabled by an incentive-induced experimentation culture guided by both deliberate and emergent strategies (cf. Mintzberg and Waters, 1985). Regarding *operating speed*, swift execution is facilitated by clear policies and target setting, rewards, and sufficient human resources – along with the acceptance of inevitable mistakes, these factors empower employees to decide and act without delay in the interest of their organisations. In summarising organisational structures as microfoundations (Table 3), we state the following proposition:

P1: The organisational structure-related microfoundations associated with.

(a) procurement *response speed* are collaborative responses, agile team formation for local responsiveness or global expertise, and empowering culture and resources;

Table 3
Synopsis of organisational structures as microfoundations of speed and the exemplary empirical indicators.

Aggregate dimensions	ProcurementRESPONSE speed	Procurement STRATEGIC ADAPTATION speed	Procurement OPERATING speed
Organisational linkages	"Close collaboration with stakeholders", "open communication" through "clear pre-agreed channels", "communication about risks across teams", "active dialogue with suppliers for understanding change" **→ Collaborative response and risk- and change-focused communication agenda**	"Assistance by other functions", "top management understanding of the importance of procurement", "collaboration and openness between organisations", "active dialogue with stakeholders", "supplier relationships" **→ Broad stakeholder support**	"Collaboration and communication between sales and procurement", "openness towards suppliers", "integration with suppliers" **→ Key actor-focused communication**
Organisational forms	"Clear roles/delegation", "centralised procurement", "flat hierarchy", "business partnering", "agile teams", "flexible organisation without silos" **→ Agile team formation and a combination of decentralised decision-making and centralised expertise**	"Capability-based organisational structure", "agile organisation", "problem-driven agile team formation", "management of supplier portfolios" **→ Flexible problem-driven team formation with readiness to adapt supplier networks**	"Clear/defined responsibilities", "mandate for action", "leveraging of supplier network", "collaboration with business" **→ Flat structures and hierarchies and collaboration-enabling organisation**
Organisational & institutional constraints	"Culture of accepting failure", "culture of daring to talk about risks", "joint vision and target setting", "appropriate workload", "adequate time for daily sourcing tasks" **→ Empowering culture with human resource planning**	"Culture of experimentation", "culture of renewal", "courage for new IT adoption", "communication of strategy failures from lower levels of hierarchy", "strategy-derived actions", "rewards for ideas and renewal" **→ Incentive-induced experimentation culture guided by both planned and emergent strategy**	"Culture of accepting mistakes", "rewards for reaching targets", "clear targets", "clear policies from top management", "continuous project monitoring and steering", "sufficient/right resources" **→ Culture of accepting mistakes with operations execution enabled by guiding policies, rewards, and sufficient resources**

Table 4
Synopsis of processes as microfoundations of capabilities for speed and the exemplary empirical indicators.

Aggregate dimensions	ProcurementRESPONSE speed	Procurement STRATEGIC ADAPTATION speed	Procurement OPERATING speed
Design	"Clear processes and operating procedures", "process for new tasks", "escalation process for emergency situations", "ease of submitting requests", "clear and refined specifications from stakeholders" → **Formalised, clear, and simple approaches to managing exceptions**	"Jointly described and accepted processes", "access to information on strategy and targets", "early understanding of organisational change plans", "agile development methods", "MVP as a starting point" → **Harmonised processes, forward looking view, and agile project management**	"Defined processes", "templates", "adaptable processes", "framework for process deviation", "variant for stakeholder self-service", "common processes and tools", "procurement involved early on in critical projects", "supplier involvement", "iterative approach in sourcing" → **Simple and adaptable processes (for variants), early involvement in projects, and agile sourcing for solutions**
Operation	"Proactive supplier collaboration and data analysis", "taking care of basics", "ability to prioritise", "business continuity planning" → **Anticipatory approach with collaboration and analytics, preparing and planning for continuity**		"Upfront execution", "smart planning and scheduling of work", "fast decision-making", "careful execution", "ability to recognise important tasks" → **Scheduling and prioritisation of tasks, high quality execution, and anticipatory approach with pre-processing**
Development metacapability		"Involvement of personnel", "ability to give up and shut down bad processes", "making practices more efficient" → **Change management and readiness for change**	"Value-stream mapping for waste elimination" → **Value-engineering approach**
Environmental scanning	"Detection of weak signals", "process for reacting and escalating weak signals", "monitoring of supply markets and chains", "prediction of needs with sales and other stakeholders", "continuous risk management", "fast analysis", "scenario planning" → **Processes for managing weak signals and recognising threats and opportunities**	"Forecasting", "future orientation", "market analyses", "scenario planning", "real-time information on business needs" → **Future orientation with processes for market analysis and needs recognition**	

(b) procurement *strategic adaptation speed* are broad stakeholder support, flexible problem-driven team formation and supply networks, and experimentation cultures guided by strategy; and
(c) procurement *operating speed* are key actor-focused communication, flat and collaboration-enabling organisations, and guiding policies and targets.

4.2.2. Processes as microfoundations

Continuing with processes, we observed four aggregate types of microfoundations for speed: (1) design, (2) operation, (3) development metacapability, and (4) environmental scanning (see the data structure with quotes in Appendix A). First, the process *design* principles (cf. Chopra and Meindl, 2009) – in terms of fit-for-context customisation and variation (e.g. regarding internal customer clock-speed), best-practice harmonisation across multiunit organisations, and early involvement in strategy formation and new product development (for eliminating time waste due to redesign) – were perceived as microfoundations of speed in our data. We also observed a paradox in terms of (in)formalisation, as the informants associated the formalisation of tendering processes with predefined and tested steps as a contributor to reduced throughput time. Conversely, some informants suggested that tightly defined and KPI-driven operating procedures caused rigidity and slowed things down. For example, as seen in our data, the context in the project business is characterised by a high degree of novelty due to customer customisation, suggesting the need for improvisation and independent thinking. Another interesting contingency observation in our data is the agile project management approach to procurement (cf. Austin and Devin, 2009), which was associated with open specification, such as the call to contribute to business development or digital transformation with new solutions. In contexts where customers struggle to fully specify their requirements and the benefit of novelty is high, the agile approach to project management is deemed to provide value faster.

In observing the variations in the types of speed in terms of process design (see the sample quotes in Table 4 with summaries), we found that *response speed* is composed of formalised, clear, and simple approaches to managing exceptions and emergencies. *Strategic adaptation speed* differs in this regard; here, the emphasis is on harmonised processes across multiunit organisations to enable swift adaptation in an entire organisation. Furthermore, agile project management contributed to fast adaptation. To increase *operating speed*, simplicity, adaptability, harmonisation, early involvement, and agile sourcing for solutions should be emphasised in process design.

Second, the *operation* of processes (cf. Chopra and Meindl, 2009) was perceived as contributing to procurement speed (Appendix A). Doing things right the first time or adhering to the "one-touch principle" reduces rework and allows procurement to provide value faster to internal customers. Certain contexts were observed as requiring anticipatory approaches; for example, project business sourcing work might have to be done prior to the actual order in a push mode to secure timely delivery. Contingency planning may be required for disruption-prone environments to enable swift responses, and pre-building supplier networks may be required for ramping up new business and supporting the swift beginning of production. Finally, prioritising key tasks allows procurement to speed up the most important projects.

Here, our data on the variation of microfoundations across the types of speed (Table 4) indicated that proactive supplier collaboration and data analysis, the ability to prioritise, and business continuity planning contributed to *response speed*. While the operation of processes appeared less important for increasing strategic *adaptation speed*, several practices contributed to *operating speed*: upfront and careful execution, smart planning and scheduling of work, fast decision-making, and prioritisation of important tasks.

Third, we found a somewhat less salient observation in our data regarding the value engineering approach. We associated this microfoundation with the concept of dynamic *metacapability for development* (Appendix A; Collis, 1994). Based on our comparative data, this microfoundation bore significance for *strategic adaptation speed* in terms of personnel involvement, the ability to give up and shut down bad processes, and readiness for change – all elements of change management. Value-stream mapping contributes to the elimination of waste from processes, thus increasing *operating speed*.

Fourth, we observed *environmental scanning* (Appendix A), defined as "the process through which an organisation gathers information about its external environment" (Robinson and Simmons, 2018, 526), to

contribute to procurement speed. The detection of, reaction to, and escalation of weak signals; the monitoring of supply markets; and the prediction of stakeholder needs – all of them contributed to better *response speed* (Table 4). Environmental scanning also contributed to *strategic adaptation speed* in the form of forecasting and future orientation with market analyses, scenario planning, and recognition of business needs with real-time information (Table 4).

In summarising processes as microfoundations (Table 4), we state the following proposition:

P2: Process-based microfoundations associated with.

(a) procurement *response speed* are the processes for managing exceptions, anticipatory approaches with collaboration and analytics, and scanning supply market signals;
(b) procurement *strategic adaptation speed* are harmonisation and readiness for change, forward view with early recognition of needs, and agile projects; and
(c) procurement *operating speed* are the simple processes and guidelines for variants, pre-processing and prioritisation, and waste elimination.

4.2.3. Technology as microfoundations

The perception among our respondents was that technology can speed up procurement (see the data structure with quotes in Appendix A), a notion that is aligned with digitalisation experiences in other contexts (Schneider et al., 2021). First, *automation* appeared to feature mainly as an enabler of speed, with robotic process automation (RPA) appearing as a key technology. Our observations of RPA further emphasise the particular benefits of *response speed* (Table 5), as it directs managerial attention to non-routine responses (cf. Ocasio, 1997). Furthermore, automation was naturally the most obvious contributor to *operating speed* (Table 5).

Table 5
Synopsis of technology as microfoundations of capabilities for speed and the exemplary empirical indicators.

Aggregate dimensions	ProcurementRESPONSE speed	Procurement STRATEGIC ADAPTATION speed	Procurement OPERATING speed
Automation	"Automation of routines" → **Release of managerial attention to non-routine response and strategic tasks**		"Robotic process automation", "automated reporting", "S2P automation" → **Automation of routine high-volume tasks**
Systems and tools	"Harmonised systems", "reporting capability", "supplier relationship management", "market monitoring" → **Information-based response**	"Strategic approach to adoption", "flexible systems", "tool for managing milestones and targets" → **Architecture for adaptation with project management tools**	"Integrated systems", "harmonised/ single system", "user-friendly tools", "efficient and well-functioning information systems" → **Single input and ease of use**
Data	"Wide access to data", "data quality", "predictive data", "up-to-date master data" → **Access to and quality of data with predictive analytics**	"Data analytics", "data quality" – > **Evidence-based adaptation**	"Real-time data", "same data available for everyone" → **Shared real-time data**

Second, the respondents perceived that *systems and tools*, such as e-auctions and virtual reality tools for remote inspection, streamline and reduce waste (such as document handling and travel). Single and integrated systems reduce the amount of data input requirements and, thus, time wasted, emphasising the importance of guiding architecture and a strategic approach to technology adoption. Easy-to-use systems and tools enabled speed in procurement (Appendix A).

Again, the microfoundations differed across types of speed (Table 5), as the harmonised systems and appropriate tools increased the availability of information and, essentially, the *speed of response*. A strategic approach to the adoption of digital applications (e.g. with roadmaps and a recognition of interdependencies), flexible systems, and tools for managing milestones and targets point to the importance of an IT architecture designed for rapid adaptation. For example, the alternative options of monolithic one-stop solutions (end-to-end procurement suites) versus the best-of-breed collection of applications for different procurement needs may have implications for implementation time and, indeed, *adaptation speed*. The observations regarding accelerating *operating speed* pointed to the importance of a single input of data, or one set of numbers, and ease of use as key principles in this domain (Table 5).

Third, *data* appeared to be a significant microfoundation of speed in procurement. Process visibility through dynamically updated real-time data and access to high quality data and associated analytics were perceived as drivers of faster value contribution due to faster time-to-decision and the implementation of control measures (Appendix A). In more detail, access to and the quality of data with predictive analytics appeared to play a role in increasing *response speed* (Table 5). Furthermore, *strategic adaptation* may have been faster with an evidence-based approach enabled by data analytics (e.g. in the form of a business case based on a pilot or a proof of concept). Real-time data accessible to all the relevant parties contributed to *operating speed*. In summarising the issue of technologies (Table 5), we state the following proposition:

P3: The technology microfoundations associated with.

(a) procurement *response speed* are the release of attention to strategic tasks and leveraging data and information;
(b) procurement *strategic adaptation speed* are the supporting architecture, project management tools, and evidence-based approaches; and
(c) procurement *operating speed* are automated routines, single input and ease of use principles, and shared real-time data.

4.2.4. Individuals as microfoundations

We finalised our analysis with a focus on individuals (see the data structure with quotes in Appendix A). First, *skills* appeared as a major theme, as leadership, networking, and influencing skills by means of collaboration and issue selling with business cases (Dutton and Ashford, 1993) were perceived as being associated with speed in procurement. Furthermore, analytics and knowledge-based decision-making skills, strategic business skills, prioritisation skills, and foundational procurement skills appeared to have a similar association.

According to our data, influencing and prioritising skills are associated with *response speed* (Table 6), while *strategic adaptation speed* is associated with systems-thinking skills for dealing with, for example, complex implementations. *Operating speed* was found to be enabled by foundational skills, such as understanding the drivers of profitability and prioritisation skills.

Second, *knowledge* was emphasised as an important microfoundation, and we observed a clear dichotomy. On the one hand, the informants emphasised supply-side knowledge of suppliers and markets, such as in the form of identifying innovation partners and emerging technologies, and knowledge of the supply base and market dynamics (Appendix A). On the other hand, there was also support for the role of demand-side knowledge about the products and services to be procured.

Knowledge as a microfoundation across types of speed seemed to vary somewhat; however, knowledge of supply markets appeared to be a

Table 6
Synopsis of individuals as microfoundations of capabilities for speed and the exemplary empirical indicators.

Aggregate dimensions	ProcurementRESPONSE speed	Procurement STRATEGIC ADAPTATION speed	Procurement OPERATING speed
Skills	"Understanding of business and criticality to business", "good personal networks", "sales skills", "communication towards stakeholders", "understanding of processes" → **Influencing and prioritisation skills**	"Understanding role in supply chain", "ability to focus on the essential", "business skills" → **Systems-thinking skills**	"Expertise", "competent personnel", "understanding of the drivers of profitability", "questioning needs' priorities", "competence of technologies" → **Process skills**
Knowledge	"Knowledge of suppliers and markets", "high level of category knowledge" → **Knowledge-based response**	"Knowledge of suppliers", "market awareness", "broad understanding of risks", "industry knowledge" → **Knowledge of context and constraints for adaptation**	"Awareness of existing solutions" → **Market awareness supporting fast sourcing**
Characteristics		"Openness to new ideas", "ability to cope with uncertainty", "ability to conform", "curiosity", "motivation" → **Attitude for adaptability**	"Taking responsibility", "motivated and committed personnel", "ability to improvise" → **Initiative for execution**

common denominator (Table 6). Knowledge of suppliers, markets, and categories enabled *response speed* by means of quick problem-solving. Regarding *strategic adaptation speed*, knowledge played a key role in determining the constraints for adaptation – for example, in terms of the identities of potential technology vendors and their capabilities. *Operating speed* benefitted from market awareness, particularly regarding the existing solutions and products, so that the throughput time for sourcing could be compressed.

Third, we observed four individual-level *characteristics* as microfoundations associated with speed (Appendix A). The informants perceived self-direction to be important for knowledge acquisition and a way to push things forward; and they also saw intrinsic motivation as a personal attribute for getting things done quickly. The characteristics associated with *strategic adaptation speed* pointed to an attitude towards adaptability by being open to new ideas and having the ability to cope with uncertainty, for example (Table 6). In terms of *operating speed*, individuals' initiative for quickly executing, for example, sourcing processes, was driven by motivation, commitment, and the ability to take responsibility and improvise. In summary (Table 6), we state the following proposition:

P4: The individual-related microfoundations associated with.

(a) procurement *response speed* are influencing skills, prioritisation skills, and knowledge of markets and categories;
(b) procurement *strategic adaptation speed* are systems-thinking skills, knowledge of context, and constraints and attitude towards adaptability; and
(c) procurement *operating speed* are foundational process skills, market and solution awareness, and initiative-taking.

Fig. 3 summarises our main findings in terms of the key concepts and their associations as a populated and contextualised version of the research framework.

In a nutshell, Fig. 3 shows a range of microfoundations – associated with organisational structures, processes, technologies, or individual competencies – that, in particular combinations, bring about either operational or dynamic capabilities (stable or unstable in the case of the latter), which then contribute to the identified procurement speed types. Finally, the observed speed types for responses, strategic adaptation, and operation – and which are useful for considering procurement acceleration – are associated with appropriate procurement contexts.

5. Discussion and conclusions

5.1. Theoretical contributions

Having recognised the increased importance of speed in contributing to procurement value and maximising a firm's long-term value (Gray et al., 2020), this research sought to answer the following research question: How can procurement be accelerated to improve its capability for strategic value contribution? In particular, this research aimed to identify the various speed types (as capability outcomes) and the related capability types and then link these speed types to capability microfoundations.

Our theoretical contributions are threefold. We contribute to the context-specific theory regarding speed and acceleration by confirming and elaborating on three different speed types in procurement – response speed, strategic adaptation speed, and operating speed – and associate them with established capability types (Fig. 3). While operating speed is naturally an outcome of operational capabilities continuously pursued through appropriate configurations, response speed draws on a more versatile set of capabilities, addressing immediate needs with both stable and unstable dynamic capabilities as well as operational capabilities. Finally, strategic adaptation speed is associated more simply with addressing recurring needs with stable best-practice capabilities. Our results therefore advance the theoretical understanding of speed in the procurement context beyond specific procurement tasks, such as accelerating time to market with supplier integration (Chenini et al., 2021; Johnsen, 2009; Perols et al., 2013), managing faster service sourcing (cf. Wynstra et al., 2018), or shortening cycle times or process speed with digitalisation (Hallikas et al., 2021; Herold et al., 2023). However, this contribution regarding the types of speed underscores the importance of recognising the appropriate level of speed for each task or context. Future research should aim to provide organisations with clear guidance on what level of speed is necessary to thrive in different contexts, thereby helping them avoid falling into the 'speed trap' (cf. Perlow et al., 2002).

Furthermore, and as the most important aspect of the theoretical contribution, the analysis of microfoundations (see Fig. 3, P1–P4) revealed several theoretical insights informing capability acceleration as per the types of speed in procurement. In this vein, our study revealed a variety of microfoundations across structures, processes, technologies, and individuals, both familiar and novel. Indeed, the set of capability microfoundations that contribute to speed consists of many of the basic good practices in procurement, such as early involvement (cf. Suurmond et al., 2020), (de)centralisation (cf. Rozemeijer, 2000), the use of data and analytics (cf. Handfield et al., 2019), and skills development (cf. Bals et al., 2019). Such a conclusion emphasises the fundamental role of speed in the procurement function: fast value contribution through execution, response, and adaptation is an important guiding policy (cf. Rumelt, 2012) for a function that operates in the crossfire of evolving demands, requirements, and market constraints and that increasingly seeks to support strategic business imperatives. Importantly, doing the so-called basics of procurement well – for example, from the maturity perspective (Schiele, 2007) – allows one to realise this fundamental guiding policy for acceleration. This includes, for example, clear roles,

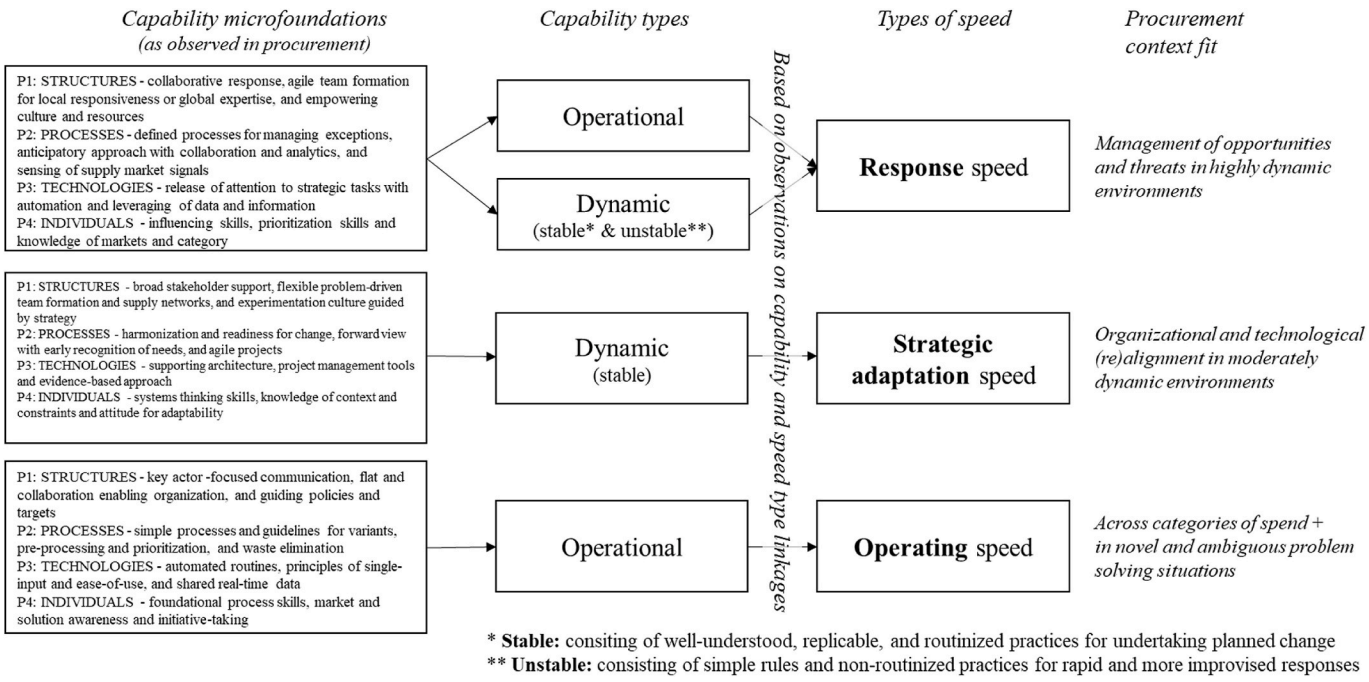

Fig. 3. Summary of findings.

responsibilities, and advanced skill levels for timely action and resisting task performance deterioration under time pressure (cf. Delke et al., 2023; Perlow et al., 2002).

The discovered microfoundations also offer new insights. Our data revealed the role of the business-driven organising of procurement to align and match the clock-speed of different business units with similarly oriented procurement teams. Furthermore, we discovered the role of agile teams and the different ways of working to facilitate quick problem-solving (incorporating both quick formation and operating with agile project management principles) as well as the role of flat structures that reduce procure-to-pay throughput time. While previous studies focused on organising procurement from the perspectives of global synergy (Trautmann et al., 2009) and innovation management (Schiele, 2010), there is a need to understand new structural variants and alternatives for organising from the perspectives of speed and acceleration (cf. Bals et al., 2018). Such transformations, particularly in terms of digitalisation, likely demand the microfoundation-level upskilling of procurement managers and specialists (Colombo et al., 2023; Herold et al., 2023).

The softer aspects of organising, such as organisational culture, were also underscored in our data, which suggests that variables such as empowerment (e.g. reducing the fear of mistakes or fostering the courage to experiment) should be recognised in organisational design-for-speed. In terms of processes, our results highlight the need for variants to the standard specification-driven sourcing process (e.g. the application of agile principles for solution sourcing) and managing exceptions. Recent research has emphasised the need to expand the knowledge base in terms of the sourcing process as the fundamental procurement element (Bäckstrand et al., 2019).

One could argue that the need for faster value contribution – by enabling internal customers and supporting the business for long-term value maximisation (Gray et al., 2020) – challenges the traditional and fundamental design rules of organisational structures and processes in procurement and propels the exploration for novel designs. With these insights, and in light of the fragmented nature of the literature, we enrich the existing understanding of the microfoundations for procurement speed.

Our theoretical contribution progresses beyond the procurement context, as we contribute to the understanding of the *nature of capabilities* associated with speed more generally. The confirmation and elaboration of the three speed types as capability outcomes suggests that organisations are focusing on speed and acceleration in terms of both the operation of existing resources and routines (operational capabilities) as well as the changing of the resource base and the associated routines (dynamic capability). While the literature on the speeding up of operational capabilities is mature (see the work on time compression and lean), the dynamic capability side of the equation is still evolving, as suggested by the recent advances made by Müller et al. (2023) on ad hoc supply chains and Phadnis and Schoemaker (2022) on supply chain vigilance. This observation indicates that future research on response speed should explore the dynamic capabilities needed for the fast recognition of threats and opportunities and the implementation of ad hoc exception management approaches in a formalised manner.

Our results concur with Eisenhardt and Martin (2000), and more recently with Müller et al. (2023), as we also found that dynamic capabilities are not necessarily based on defined routines or that they would be strictly stable in nature. Particularly, fast responses in dynamic contexts demand problem-solving and improvisation (i.e. unstable non-routinised dynamic capabilities) in addition to the more stable best-practice type of dynamic capabilities and fast operational capabilities. This type of speed is perhaps the most demanding challenge for organisation, and due to the high level of uncertainty, a full repertoire of capabilities is required to produce swift reactions to immediate needs in unexpected circumstances – which is somewhat in contrast to the simpler set of associations presented earlier in Fig. 2. The higher the uncertainty, the more relevant perhaps is a cumulative approach, in which the defined operational capabilities are maintained and refined with stable and routinised dynamic capabilities in the context of repetitively occurring change and – as a last resort in unexpected circumstances – improvised with unstable and non-routinised dynamic capabilities for adapting to immediate needs (cf. Müller et al., 2023; Schmitt and Klarner, 2015).

This leads us to consider the *contingency* perspective back at the more specific procurement context, as we suggest that procurement acceleration should contribute to long-term value as follows: (a) response speed enables the timely and effective management of opportunities and threats that emerge from highly dynamic demand- and supply-side markets; (b) strategic adaptation speed enables swift strategic (re)

alignment in moderately dynamic contexts in terms of organisation and technology to support business and procurement priorities; and (c) operating speed enables timely problem-solving for internal customers and business, with accentuated relevance in novel and ambiguous contexts of strategic importance.

Therefore, we identified important contingencies for acceleration in the context of procurement, all saliently associated with dynamics and uncertainty. Indeed, speed appears to be a particularly relevant mechanism for procurement value contribution in dynamic contexts, and, as has been suggested by Schoemaker and Day (2021), is a key element in achieving *vigilance*. In other words, having leveraged supply market intelligence for anticipating threats and spotting opportunities (Lorentz et al., 2020), or for seeing sooner, procurement can then "act faster when needed" (Schoemaker and Day, 2021, 66).

Our findings contribute to the general-level theoretical discussion on the *association between speed and capabilities*, which proposes concepts such as operational "intrinsic speed capability" (Pacheco-de-Almeida et al., 2015, 159) or "organisational speed" as one of the dynamic capabilities of firms (Dykes et al., 2019). Our results substantiate the contrasting perspectives in the literature that suggest that speed is more of an *attribute* of operational capabilities in procurement (e.g. sourcing) as well as of both the dynamic capabilities of the stable "best practices" and the more unstable dynamic capability of "simple rules and processes" (cf. Eisenhardt and Martin, 2000; Peteraf et al., 2013). This clarification implies that the acceleration of these generic types of capabilities occurs by (re)configuring the respective microfoundations of the said capabilities and that speed is essentially an outcome of a single capability or a bundle of capabilities.

5.2. Managerial implications

For practicing managers, the confirmed and elaborated three types of speed provide clear guidance on how to make sense of the problem of fast value contribution in procurement. Once priorities are clear regarding where acceleration is needed, the results on microfoundations can be used to identify actionable strategies (Fig. 3). For example, having recognised a need to respond to threats faster, procurement may establish a defined process for managing exceptional and surprising circumstances, systematically engage in scanning supply market signals, and empower teams to make fast decisions regarding supply network changes, thus deploying the full range and power of capabilities and the associated microfoundations.

Regarding accelerating strategic adaptation speed – for digital transformation, for example – procurement may maintain key stakeholder relationships with IT, foster experimentation culture, harmonise processes, design a supporting architecture for adopting best-of-breed applications, and cultivate system-thinking skills among the procurement people managing the programme (e.g. Davidz and Nightingale, 2008). To succeed in acceleration, the rationale for investing in speed must be clear. In a rapidly evolving environment, corporate strategies, customer and stakeholder requirements, technologies, and supply markets change and new problems rise, implying a degree of dynamism and uncertainty. In such a context, the most relevant way of making the procurement function "future ready" (cf. Yu et al., 2022) and vigilant (Phadnis and Schoemaker, 2022; Schoemaker and Day, 2021) is to invest in speed.

5.3. Limitations and future research

Future research must test the associations between types of speed and capabilities as well as contingencies. How speed types should be prioritised in various contexts (including industries and categories) and how they are associated with the performance of the procurement function and that of firms would be relevant foci for explanatory research. Furthermore, due to the range of microfoundations we revealed, further research may focus on less-understood microfoundations, such as business-driven organising of procurement, culture, design of sourcing process variants, flexible digital architectures, and supply market knowledge, including their interdependencies. Finally, our results highlight the paradox of being fast. The quality of work may suffer in the pursuit of strategic value contribution through speed, even to the point of self-destructive organisational pathology, as suggested by Perlow et al. (2002) on speed traps. Further research should explore the danger of unbridled acceleration and the ways to manage this paradox by understanding the limits of acceleration. To this end, the recent theoretical contributions on this paradox, such as Seidemann (2024), and the broader literature on managing organisational paradoxes (cf. Pina e Cunha et al., 2024) can offer a valuable foundation.

Further, understanding the generative mechanisms explaining the causal associations identified in this research, linking the, for example, capabilities to speed outcomes in certain contexts (cf. Bille and Hendriksen, 2023) would be be an interesting research avenue. In this topic, process tracing could be particularly useful for uncovering these causal or generative mechanisms (Beach and Pedersen, 2019), helping to explain how procurement can be accelerated under certain circumstances. Such an enquiry could enrich our understanding of how strategic value can be realised through speed in practice.

CRediT authorship contribution statement

Anna Aminoff: Writing – original draft, Methodology, Data curation, Conceptualization. **Harri Lorentz:** Writing – original draft, Methodology, Data curation, Conceptualization. **Riikka Kaipia:** Writing – original draft, Data curation, Conceptualization.

AI statement

During the preparation of this work, the author(s) used ChatGPT in order to improve readability and language of individual sentences in the manuscript. After using this tool, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

Declaration of competing interest

None.

Appendix A. Microfoundations of speed in procurement across domains

Appendix B. Overview of workshop participants

Industry of participants	% of participants	No of participants	No of companies
Retail	*28 %*	*19*	*2*
Engineering and manufacturing	*12 %*	*8*	*2*
Consultancy and IT services	*10 %*	*7*	*3*
Food industry	*10 %*	*7*	*4*
Manufacturing other	*7 %*	*5*	*5*
Bank and insurance	*6 %*	*4*	*3*
Pharmaceutical industry	*6 %*	*4*	*2*
Game industry	*4 %*	*3*	*1*
Chemical industry	*3 %*	*2*	*1*
Consumer goods	*3 %*	*2*	*2*
Engineering and desing	*3 %*	*2*	*2*
Construction	*1 %*	*1*	*1*
Electricity network development	*1 %*	*1*	*1*
Public	*1 %*	*1*	*1*
Telecom	*1 %*	*1*	*1*
In total		***67***	***31***

Appendix C. Strategies used to satisfy the trustworthiness criteria

Trustworthiness criteria	Strategies pursued to satisfy criteria
Credibility (The extent to which the research findings represent plausible information drawn from the informants' original data and whether steps have been taken to secure the correct interpretation of the informants' original views)	Close and continuous interaction with the informants during empirical data collection. Emphasis on capturing the interpretations of practitioners. Use of sequential data analysis before comparing insights across all data sources to ensure consistency and coherence of findings (cf. Nag and Gioia, 2012)

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(*continued*)

Trustworthiness criteria	Strategies pursued to satisfy criteria
Transferability (To what extent can the results be transferred to other contexts or settings with other respondents and still be considered informative and pragmatically useful?)	Triangulation of data and methods, researcher triangulation, and peer debriefing. Persistent observation techniques, including reading and rereading the data, theorising about it, revisiting the concepts, recoding the data several times, and relabelling the codes. This process continued until the final results provided the intended depth of insight. Use of NVivo to ensure credible data storage and management. Workshops with respondents to provide feedback on the data and interpretations. The study findings are based on the data collected from procurement managers and professionals in a specific industry context, which helped in gaining an understanding of the context of the companies. Procurement practitioners from various industries were interviewed. The interviews continued until data saturation.
Dependability and confirmability (How stable are the findings, and to what extent are conclusions and recommendations grounded in the data and not produced by the views and imaginations of researchers?)	Use of purposive sampling to ensure variation and the emergence of stable and saturated core themes. The interviews were conducted in the language of the informants, and transcriptions were kept in their own words and style. Separating of codes that closely represented the data and higher-order themes to enable continuous verification of interpretations. Reflexive discussions among researchers to foster intersubjective agreement. Maintenance of a systematic case database of documents.

Data availability

The authors do not have permission to share data.

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