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EDITORIAL

Dynamic capabilities: New ideas, microfoundations, and criticism

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Abstract
In this special issue, we have collected 13 articles that offer new vantage points for research on dynamic capabilities. We offer a selection of thought-provoking papers that advance current thinking on dynamic capabilities and provide directions for new inquiries using the dynamic capability framework. The microfoundations of dynamic capabilities have increasingly received interest. This special issue offers a range of conceptual methodological approaches to deepen our understanding of the issues surrounding the microfoundations of dynamic capabilities.

Key words: microfoundations; dynamic capability view; group dynamics; evolutionary fitness; managerial capabilities; innovation; performance; uncertainty

Introduction

The dynamic capabilities (DC) framework aims at addin to our understanding of how firm-level competitive advantage is created and maintained. We have seen much progress to come closer to this vision including a healthy and critical debate on the theoretical underpinnings of DC, their microfoundations, their measurement and policy implications. The Strategic Management Division of the Academy of Management recently devoted a webinar in its 'Meet the Theory' series to DC[1], illustrating the importance of DC as one of the main theoretical frameworks in the strategy area.

Nevertheless, discussion continues about the theoretical underpinnings of DC. In a bibliometric analysis of the extant DC literature, Di Stefano, Peteraf, and Verona (2010) revealed a divide into two main intellectual 'camps': one building on the framework developed by Teece and another around Eisenhardt's diverging framework (see also Arndt & Pierce, 2018; Peteraf, Di Stefano, & Verona, 2013). Furthermore, the DC framework has been criticized for several conceptual shortcomings, most importantly regarding the clarity of its main constructs (Kurtmollaiev, 2020) as well as the difficulty of specifying initial conditions (Hallberg & Felin, 2020). As recent contributions to this ongoing conversation illustrate, the multi-level and dynamic nature of phenomena the DC framework seeks to explain has been insufficiently acknowledged.

Against that background, a special issue that advances the DC literature by applying a microfoundations approach, is timely. Recent contributions to the DC literature have applied a

[1]The recording of this webinar is available at https://www.youtube.com/watch?v=dAx0hwaxwVg.

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microfoundations approach (Hallberg & Felin, 2020; Kurtmollaiev, 2020), linking explanatory mechanisms at the micro-level to macro-level organizational processes and outcomes (Barney & Felin, 2013; Devinney, 2013; Felin, Foss, Heimeriks, & Madsen, 2012, 2015). In the context of DC, a microfoundational approach would involve unpacking the processes by which DC are created, expressed and transformed within organizations. It can also serve as a way to advance our understanding of the organizational consequences of DC. Prior contributions on dynamic managerial capabilities can be considered microfoundational (e.g., Adner & Helfat, 2003).

The *Journal of Management & Organization* has been an outlet of choice for several important contributions advancing the DC literature. Arndt (2019) provides an overview of the key DC-related work in the journal[2], highlighting the diversity of these contributions and the impact this work has had. The contribution by Teece (2018) on how DC can be used as an overarching framework to effect purposeful organizational change remains among the most read papers the journals have published to date[3]. Furthermore, contributors to the journal have built on each other's contributions. For instance, Arndt and Bach (2015) engaged directly with a prior contribution by Galvin, Rice, and Liao (2014) to extend our understanding of the ecological, evolutionary and behavioral perspectives on DC. These two papers are just one example of an ongoing conversation on DC happening on the journal's pages. Thus, the *Journal of Management & Organization* is a natural home for this special issue on DC and microfoundations.

With this special issue, we sought to provide a platform for a state-of-the-art debate about recent progress in dynamic capability research and continue the journal's tradition of publishing fundamental work on DC. To achieve this aim, we invited scholars to submit contributions of a conceptual or an empirical nature that advance our thinking on DC and, in particular, ones that apply a microfoundations approach (Hallberg & Felin, 2020; Kurtmollaiev, 2020) for us to consider including in the special issue. We were grateful to receive a rich interest that made this special issue much more competitive than expected. We selected 12 papers for inclusion in this special issue and invited another paper that offers an overarching theoretical lens of DC. We wish to express our gratitude to all authors who submitted a paper, the many reviewers who provided detailed and comprehensive evaluations and feedback, the *Journal of Management and Organization* Editor in Chief Dr. Remi Ayoko for her staunch support of the special issue, and Ann Williamson for her excellent editorial assistance. We furthermore acknowledge the groundwork that was laid by the proponents, authors, and reviewers contributing to the EURAM Strategic Management SIG standing track on Microfoundations of Strategy: DC and Knowledge Mechanisms as well as the SIG and EURAM officials and organizers for supporting this track.

In the following pages, we provide an overview of the papers included in this special issue. We then conclude by offering our suggestions for future research to take forward this exciting combination of DC and microfoundations.

Overview of papers included in the special issue

Our invited paper by Cristofaro and Lavallo (2022) sets the tone for the full range of the papers in this special issue by developing an agent-based model of evolutionary fitness. They advance a microfoundational perspective by showing how agents on the individual and collective level entrepreneurially solve problems and thus help firms to prosper. The paper sets the tone for inquiries on strategic behavior, dynamic managerial capabilities as well as cognitive and affective factors enabling top management teams.

[2]The collection introduced in this editorial can be found at https://www.cambridge.org/core/journals/journal-of-management-and-organization/collections/jmo-picks-on-dynamic-capabilities-selected-by-felix-arndt

[3]See https://www.cambridge.org/core/journals/journal-of-management-and-organization/article/dynamic-capabilities-as-workable-management-systems-theory/0F3A795EE011931B83135B324C33393E#metrics for more details.

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A first set of papers in the special issue offer novel understanding of the inner workings of DC. Several of these contributions do so by advancing microfoundational explanations. In their conceptual piece, Araújo, Kato, and Del Corso (2022) proposed that strategic planning is one of the microfoundations of DC. Strategic planning rationalizes, formalizes, and operates the demands of DC, which provide strategic planning with a better interpretation of the external environment. The interaction between strategic planning and DC is retro-fed by previous performance and improves subsequent performance.

Durán and Aguado (2022) observed that prior work has brought to the fore connections between organizational level DC with managerial cognition occurring at lower levels of analysis. The vast majority of these studies focused on CEOs. They used meta-analysis to organize such studies of CEO cognition and DC and aggregate the findings from these individual studies into a fuller picture. Their findings demonstrate a CEO's managerial cognition positively influences their firm's DC. Furthermore, they found this was strongest for sensing, as opposed to seizing and transforming. They attribute this finding to cognition that helps perceive opportunities and increase entrepreneurial alertness. Aside from their findings, Durán and Aguado (2022) provide full transparency about their meta analysis by making available their data files and code[4] for others to examine and build upon.

The study by Markovich, Raban, and Efrat (2022) tested the hypothesized relationships between web-based and human-based information sources for competitive intelligence and sensing, seizing, and reconfiguring. After an initial set of interviews that reveal that sensing relies on various sources of information and plays an essential role in promoting seizing and reconfiguring, a survey of 139 senior managers across industries was used to test the relationships. The study shows that both information sources are relevant, despite the relative abundance and affordability of web-based information sources in advancing firms' competitiveness.

The paper by Peng, Lockett, Liu, and Qi (2022) gain insights through a unique case study how DC in the form of sequential ambidexterity transform a company from an innovation laggard to a world-class innovator. This paper offers a deep understanding on how industry positioning and internal factors co-evolve to leverage DC for sequential improvements within a firm toward the innovation frontier.

Several other contributions to the special issue offer insights on how DC result in positive organizational outcomes. To explore the relationships between DC and higher-order entities, Paavola and Cuthbertson (2022) conducted ethnographic phenomenon-driven research on Tesco over 25 years. They found that DC can have varying roles in change and transformational outcomes. The authors proposed a broader redefinition of DC to include incremental, adaptive, and transformational changes.

Analyzing a sample of 441 manufacturers of electronic components, Bouncken, Fredrich, and Gudergan (2022) tested the hypothesized relationships between innovation performance and alliance management capabilities as specialized DC and offered a contingency perspective. The study shows that collaborative ventures can be seen as emerging organizations and a firm's alliance management capabilities can be conducive to generating innovations.

Irwin, Gilstrap, Drnevich, and Sunny (2022) look at the context of mergers and acquisitions (M&As) to explore the benefits of acquiring ordinary and DC. They use a sample of 4110 M&As in the US to find that the acquisition of ordinary capabilities improves short-term performance and the acquisition of DC has the potential to improve long-term performance contingent on environmental uncertainty. The study adds to the literature by concretely comparing ordinary and DC; an understudied, but important area.

Jucevičius and Jucevičienė (2022) in their paper extend the collaborative dynamic capabilities (C-DC) view and its emphasis on the boundary spanning strategic communities (SC) from firm-

[4]Interested readers will find these as online appendices alongside the Durán and Aguado (2022) article on the journal's website.

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centric to the network-centric perspective. The C-DC view aims to fill the theoretical void in 'ecosystem strategies' research and to explain capabilities synthesis across different companies and industries. In their conceptual piece, they draw attention to the key dimensions of strategic communities such as trust, co-specialization and capabilities synthesis. The study shows the differences and similarities between the two levels of analysis in leadership, areas of strategic tension and synergy, bases and architecture for asset orchestration, and key managerial focus.

George, Karna, and Sud (2022) conduct a bibliometric analysis for the years 1995 to 2020 with the purpose to understand how DC have been used in the entrepreneurship literature. They find that the entrepreneurial argument within DC has been most popular by highlighting the role of dynamic managerial capabilities as DC have been theorized around larger firms.

Zamborsky, Sullivan-Taylor, Tisch, and Branicki (2022) utilize the cross-border context for analyzing the transferability of uncertainty and risk management capabilities. The paper uses grounded theory and is particularly insightful as it highlights environmental and organizational factors that affect the transferability of these capabilities. The authors emphasize that the transferability of capabilities may be limited by the transferability of prior experiences with external factors and the institutional setting.

Singh, Charan, and Chattopadhyay (2022) investigate the role of relational capabilities on DC using a sample of 218 Indian firms. While both links with customers and strategic partnering earlier in the value chain play a role, the effectiveness of strategic partnering increases in dynamic markets while customer linking capabilities become less valuable.

Witschel, Baumann, and Voigt (2022) study business model innovation in the digital age. Using a survey of German manufacturing firms, they show that strong DC are instrumental for business model innovation in the context of digitalization. They also point out the role entrepreneurial management and entrepreneurial mindset have in ensuring firms remain competitive.

Looking ahead: Future research on DC and microfoundations

At the outset of this editorial, we noted a healthy and critical debate is taking place on the theoretical underpinnings of DC, their microfoundations, their measurement and policy implications. As a collection of papers, this special issue advances the discussion on each of these topics. As special issue guest editors, we were pleased to select papers on a wide breadth of topics, employing typical and less typical research methodologies, using data from different industries and localities, as well as being authored by scholars from across the world. The different types of microfoundations identified by Felin et al. (2012) as (1) individuals, (2) processes and interactions, and (3) structure affect the higher-level phenomenon or outcome, are represented recognizably in the studies in this special issue.[5] In that sense, this issue contributes both to the *what* and *why* of microfoundations. As we look ahead and consider what is next in research on DC taking a microfoundations approach, no reader should be surprised that more research on all facets of DC and microfoundations remains a promising avenue of research. That said, based on the contributions to this special issue we can offer several more specific suggestions.

First, empirical investigation of the implications of various types of DCs for firm performance remains an important area of research. Several of the papers in this issue looked at managerial DC, while others sought to explore DC at other levels of analysis. The DCs to make the greatest

[5]Their full definition reads: 'We define microfoundations as a theoretical explanation, supported by empirical examination, of a phenomenon located at analytical level N at time t (N_t). In the simplest sense, a baseline micro-foundation for level N_t lies at level $N-1$ at time $t-1$, where the time dimension reflects a temporal ordering of relationships with phenomena at level $N-1$ predating phenomena at level N. Constituent actors, processes, and/or structures, at level $N-1_{t\text{-}1}$ may interact, or operate alone, to influence phenomena at level N_t. Moreover, actors, processes, and/or structures at level $N-1_{t\text{-}1}$ also may *moderate* or *mediate* influences of phenomena located at level N_t or at higher levels (e.g., $N+1_{t+1}$ to $N+n_{t+n}$). In addition, while our theory focuses on the organizational routine or capability as the focal level N, the focal level N in a microfoundations inquiry may represent any collective level.' Felin et al. (2012: 1353).

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contribution to a business may vary from firm to firm and may be contingent to firm-specific factors. Both inductive exploration and deductive approaches to test moderation and mediation models and across organizational levels will benefit this line of research. Second, research into the theoretical and empirical connections between DCs and other strategic concepts, such as CEO or more generally managerial cognition (Durán & Aguado, 2022) or the link between DC and M&A (Irwin et al., 2022), has plenty of space to explore. We may benefit from expanding research on dynamic capabilities in the area of international business taking into account (ambi-)cultural ideas (Arndt & Ashkansy, 2015). As Teece (2018) has proposed and Cristofaro and Lavallo (2022) in their invited contribution demonstrated once again, DC is perhaps more of a platform on which to build theory, rather than a singular theory. As both of these broad areas of research attest to the importance of DC, scholars are well advised to explore a third area of research, namely what factors result in the development and maintenance of DCs, so that the field can continue to generate insights that can be applied in practice.

Aside from such promising topical areas, the diversity of research methodologies across the contributions to this special issue illustrates the many paths available to generate useful knowledge about DC and microfoundations. In particular, we would like to highlight the meta-analysis by Durán and Aguado (2022) which not only offers full transparency and replicability, but also can be expanded on as research on CEOs and TMT cognition and DC further accumulates. In a similar vein, the bibliometric analysis of George et al. (2022) can be revisited as research accumulates. In both cases, the hope would be that further research addresses the open questions these authors identified.

With this special issue, the field continues to develop greater clarity and more clearly articulate its theoretical foundations in response to various criticisms such as those by Kurtmollaiev (2020), and Hallberg and Felin (2020). With this increasing maturity, research on DC and microfoundations continues to attract more attention by strategy scholars and we expect this interest to remain high for quite some time to come. We encourage scholars to engage with the work contained in this special issue. Future pages of the *Journal of Management and Organization* will undoubtedly be filled with exciting and novel work on these topics as is most certainly the case for this special issue.

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