

# Dynamic managerial capabilities: A critical synthesis and future directions

Somnath Baishya<sup>a</sup>, Amit Karna<sup>b</sup>, Diptiranjan Mahapatra<sup>a</sup>, Satish Kumar<sup>c</sup>,  
Debmalya Mukherjee<sup>d,\*</sup>

<sup>a</sup> Indian Institute of Management Sambalpur, Sambalpur, 768019, Odisha, India

<sup>b</sup> Indian Institute of Management Ahmedabad, Vastrapur, Ahmedabad, 380015, India

<sup>c</sup> Indian Institute of Management Nagpur, Nagpur, 441108 Maharashtra, India

<sup>d</sup> College of Business, the University of Akron, Akron, OH 44325, USA

## ARTICLE INFO

### Keywords:

Dynamic managerial capabilities (DMC)  
Performance analysis  
Science mapping  
Bibliographic coupling  
Managerial cognition  
Managerial political capital  
Bibliometric analysis

## ABSTRACT

The literature on dynamic managerial capabilities (DMCs) has grown considerably and has evolved over the past two decades. Helfat and Martin (2015) reviewed this literature, which helped clarify the nomological network surrounding DMCs while synthesizing the empirical literature related to its impact on strategic change and firm performance. In this paper, we build on their work by applying bibliometric techniques to trace the evolution of this multidisciplinary construct. The analysis of 33 key journals and 188 articles spanning more than three decades (1989–2023) comprises distinct time periods and longitudinal trends that support meaningful visual representations of the bibliographic data. The findings reveal seven foundational themes for DMC research: upper echelons, cognitive biases, cognitive strategic groups, capability configurations, issue interpretation, individual & group characteristics, and market & network orientation. We also extend the DMC framework of Helfat & Martin (2015) by including political capital as the fourth underpinning. On the basis of the temporal and topic trend analysis, we conclude with recommendations for further research avenues that can shed light on the future of DMC literature. We also highlight practical implications for practicing managers and firms to strengthen competitive differentiation by building and leveraging DMCs.

## 1. Introduction

Over the last two decades, organizational theory has seen significant progress in understanding how organizations are influenced by the environment and the broader social context in which they operate (Gavetti et al., 2007; Tasheva & Nielsen, 2022). Through the emerging body of research, scholars have established the relationships among environmental dynamism, organizational operations, and performance volatility as core tenets in strategy and management research (Maitland & Sammartino, 2015; Gaba & Terlaak, 2013; Hitt et al., 2021; Adarkwah et al., 2024). The failure of firms to address environmental changes may lead to performance decline or exit (Aupperle et al., 2014; Hardy & Maguire, 2016). Thus, organizations adapt in the face of external changes, and managers are at the heart of that adaptation process (Foss, 2020; Contractor et al., 2019). Managerial decisions vary in response to changes in the external ecosystem and result in heterogeneity in firm performance (Cahen et al., 2016; Felin et al., 2012). Adner and Helfat

(2003) were the first to introduce the concept of dynamic managerial capabilities (DMCs) to explain such variances in managerial decision-making. According to them, DMCs “are the capabilities with which managers build, integrate and reconfigure organizational resources and competencies” (Adner & Helfat, 2003, p. 1012) in the wake of a rapidly changing external environment (Teece, 2012). Thus, Adner and Helfat’s conceptualization of DMCs puts such capabilities at the heart of an organization’s strategic decision-making process in the face of environmental dynamism.

However, not all environmental dynamisms are similar, so their implications for DMCs vary. More recently, the COVID-19 pandemic, the Russia–Ukraine war, which exacerbated the energy crisis, and the shift in geopolitics, which impacted trade and regulations, have been categorized as higher-order environmental dynamisms with origins exogenous to the firm. These hyperactive environmental states are turbulent, nonlinear, and discontinuous (Ambrosini et al., 2009). Decision-making in such situations is characterized by novelty, complexity, and open-

\* Corresponding author.

E-mail addresses: [ephd20somnathb@iimsambalpur.ac.in](mailto:ephd20somnathb@iimsambalpur.ac.in) (S. Baishya), [karna@iima.ac.in](mailto:karna@iima.ac.in) (A. Karna), [diptiranjanm@iimsambalpur.ac.in](mailto:diptiranjanm@iimsambalpur.ac.in) (D. Mahapatra), [satish@iimnagpur.ac.in](mailto:satish@iimnagpur.ac.in) (S. Kumar), [dmukher@uakron.edu](mailto:dmukher@uakron.edu) (D. Mukherjee).

<https://doi.org/10.1016/j.jbusres.2024.115015>

Received 25 April 2023; Received in revised form 6 October 2024; Accepted 10 October 2024

Available online 24 October 2024

0148-2963/© 2024 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

endedness since decision-makers do not completely understand the ongoing dynamics (Foss, 2020; Foss & Jensen, 2019). The automatic application of heuristics often leads to biased decision-making. Situations shape attention and managerial preferences in decision-making (March & Shapira, 1992). As external forces become dominant, strategy-making becomes more of a social process, and advice networks increasingly come into play, highlighting the shift toward a more social process in strategy-making under conditions of environmental change (Foss, 2020). The importance of DMCs lies in their ability to explain differences in firm performance and strategy under such conditions. Naturally, a large and rich body of literature has spawned around this critical construct.

Moreover, the constant progress in domains such as behavioral strategies (Powell et al., 2011; Foss, 2020) and microfoundations (Felin et al., 2012) in the context of strategic management has made the interest in the role of leaders (CEOs, TMTs & Boards) and individual managers in the success of the firm even more compelling. For example, while stressing the importance of managers, Contractor et al. (2019, p.4) opined that “managers, in particular, are key actors simply because they are in a position to make bigger and more important decisions than lower-level employees”, and their behaviors and characteristics need to be studied more closely to understand strategic decision-making in dynamic environments (Felin et al. 2015; Popli et al., 2022). In other words, the literature surrounding DMCs is connected with other intellectual movements, such as upper echelon theory (Hambrick & Mason, 1984) and the microfoundations perspective (Foss, 2020), and has remained somewhat fragmented. Similarly, while providing an influential starting point, Bourdieu’s concept of capital (Bourdieu, 1986) has been the subject of limited research in organizational settings (Ocasio et al., 2020), thus providing the opportunity to examine strategy processes and how managers at different levels influence organizational strategies through a capital perspective, particularly political capital (Vuori & Huy, 2016). The 2015 review by Helfat and Martin on DMCs made a significant attempt to integrate and synthesize some of these literature streams. However, the continued proliferation of studies on DMCs, coupled with the fragmented research in strategic management and related fields, calls for a comprehensive understanding of the state-of-the-art of DMCs. In this paper, we build upon and augment Helfat and Martin (2015) by employing a systematic literature review and bibliometric techniques to uncover the underlying themes and combine disparate literature streams.

We contribute to the literature by pursuing three interrelated objectives. First, we synthesize the cumulative knowledge of DMCs to build a coherent understanding of what is already known. To this end, we pursue a bibliometric analysis to objectively examine the performance trends in publications and the contributions through citation analysis. A citation analysis allows us to better understand the intellectual structure and the deeper connections in a given field (Donthu et al., 2021; Mukherjee et al., 2022). We also contribute by scientifically mapping the subfields of the DMC literature into thematic clusters through the bibliographic coupling technique and visualizing the swings in scholarly pursuits in these subfields as knowledge has continuously evolved. We obtain insights into the genesis of this construct across industries and geographies and the applicability of DMCs across financial and non-financial firm outcomes. In addition, we comprehend the linkages to related concepts and theories to establish the greater relevance of DMCs. Third, we also contribute to the literature by evaluating the dimensions constituting DMCs and assessing whether three factors—managerial cognition, managerial human capital, and managerial social capital—holistically represent the evolved world of managerial capabilities. We argue that political capital—the variety of economic, social and cultural resources available to individuals and groups to affect organizational decisions, actions, and outcomes” (Ocasio et al., 2020) is the fourth distinct dimension of the broader DMC construct. In short, our paper maps the conceptual landscape of DMCs, identifies the related factors (nomological network), shows how such factors are related to the

central construct, and tracks the evolution of the construct over time, thus shedding light on some of the core elements of theory development in a given domain (Whetten, 1989; Dubin, 1978).

Finally, on the basis of bibliometric findings, we identify under-researched or overlooked areas (Sandberg & Alvesson, 2011), recognize unresolved issues, and explore potential opportunities that may shape the future of research in this area.

## 2. Conceptual background

Before we synthesize the literature on DMCs, we believe it is pertinent to offer some perspective that helps clarify the scope of this attempt. Achieving and sustaining a competitive advantage has been the core of strategic management (Tece, 2012) and has been established through the resource-based view (Barney, 1991) and dynamic capabilities (Tece, 2012). Since the times of Barnard (Godfrey & Mahoney, 2014), there has been interest in the role of managers in organizations, and subsequent contributions have been noted through the works of Penrose (1959) and Mintzberg (1978). In organizations, individuals serve as one of the microfoundations (Felin et al., 2012). Empirical studies have highlighted differences in the behaviors and performance of firms resulting from the variations in individual-level skills and abilities (Felin & Hesterly, 2007) and decision-making (Adner & Helfat, 2003). Organizational capabilities originate from individual-level capabilities (Supriharyanti, & Sukoco, 2023). The focus on dynamic capabilities was limited to organizations and not to employees (Adner & Helfat, 2003), thereby missing the human element (Powell, 2014).

Consequent to the above view, the emerging literature on the microfoundations of dynamic capabilities has seen increased importance attributed to the role of individual managers (Helfat & Peteraf, 2015). Adner and Helfat (2003) reported that in response to changes in the external environment, managers in different firms make different decisions. To explain the heterogeneity in firm performance based on such variance in managerial decision-making, they introduced the concept of DMCs. We briefly outline these underpinnings to build a disaggregated understanding of DMCs (Helfat & Martin, 2015).

*Managerial Cognition:* ‘Cognition’ refers to “all processes by which ... sensory input is transformed, reduced, elaborated, stored, recovered, and used” (Mitchell et al., 2002, p. 96). Managerial cognitive capability is “the capacity of an individual manager to perform one or more of the mental activities that comprise cognition” (Helfat & Peteraf, 2015, p. 835). It also includes beliefs (Eggers & Kaplan, 2013) and emotions (Hodgkinson & Healey, 2011). Because they are humans, managers have high mental capacity. However, the information that they deal with is enormous and varied. While cognitive or knowledge structures help them to make complex decisions faster, they also induce biases and heuristics as they attempt to anticipate environmental changes and understand the implications of the various alternatives that then drive action (Garbuio et al., 2011). Some knowledge structures are very contextual or domain specific. While managers often find it difficult to transfer such structures across contexts, those skilled in making such shifts can better sense emerging opportunities (Gavetti, 2012; Duriau et al., 2007).

*Managerial Human Capital:* Human capital theory is based on the premise that investment in people leads to economic benefits for individuals and society (Sweetland 1996). While different types of human capital investments have been discussed, education has received the most significant attention. In addition to education, prior experience and training also lead to the development of knowledge and skills (Becker, 1994). General intelligence (psychological attribute) and personality, values, and interests (other abilities) are also now core to human capital (Ployhart & Moliterno, 2011). Managers leverage their knowledge and expertise to generate human capital at multiple levels specific to their teams, business units, technologies, functions, organizations, and industries (Helfat & Martin, 2015). While generic managerial human capital, such as knowledge, is built through work

experience and is easily transferred across settings and contexts (Campbell et al., 2012), specific managerial human capital is very contextual and is built through training and specific experiences (Adner & Helfat, 2003).

**Managerial Social Capital:** Social capital is the shared resources available through interpersonal and business connections (Kanini & Muathe, 2019). Nahapiet & Ghoshal (1998) outlined a construct for social capital consisting of structural (network ties and configurations and appropriate organization), cognitive (shared code and language and common narratives), and relational (norms, obligations, trust, and identification) dimensions. How managers develop network relationships with managers of other firms, suppliers, and buyers has been widely studied. Acquaah (2007) extended the work of Peng and Luo (2000) by broad-basing managerial network relationships in emerging economies to include government officials and community leaders. Managerial social capital helps in sensing new opportunities through the formal and informal networks of managers (Adner & Helfat, 2003). It provides access to the information and resources needed for investments that help in seizing opportunities (Pfeffer & Salancik, 2003), resulting in the reconfiguring of resources such as the organizational structure, physical assets, and personnel (Coleman, 1988).

While Adner & Helfat introduced the DMC concept in 2003 through the above three underlying factors, they cited the extant research that shaped the conversations on these factors—managerial cognition (Hambrick & Mason, 1984; Johnson & Hoopes, 2003), managerial human capital (Castanias and Helfat, 2001) and managerial social capital (Burt, 2009; Geletkanycz et al., 2001). Cognition among managers, for example, prior to its linkage with DMCs, was focused on elements such as decision rules (Priem, 1992), maps (Daniels et al., 1994), categorization (Day & Lord, 1992), representations (Durand et al., 1996), etc. However, with its evolution as a capability for managers (Helfat & Peteraf, 2015) and helping them anticipate, interpret, and respond to the demands of an evolving environment, managerial cognition has firmly integrated as an underpinning of DMCs. This aspect of the evolution of the underlying factors and their integration into mainstream DMCs is pivotal to our study for two reasons. First, in our search strategy, we incorporate these underlying factors as search keywords to arrive at the body of knowledge. Second, it motivates us to explore whether additional underlying factors have emerged and need integration into the concept of DMCs. One such factor that we noticed in recent scholarly conversations on the capability of managers is *Political Capital*.

Reviewing the emerging literature, Ocasio et al. (2020) built and modified Bourdieu's typology of capital and made a compelling argument for political capital. They conceptualized political capital as the variety of economic, social, and cultural resources available to individuals and groups to affect organizational decisions, actions, and outcomes. Knowledge of these resources enhances the ability of managers and leaders. This is thus a key investment in organizational settings to realize returns. Various scholars have alluded to this aspect of political capital to table the difference between 'having social capital (and) using social capital' (Obukhova & Lan, 2013; Pache & Santos, 2010) and acquiring, stocking, and utilizing it to realize its value. Political capital is contextually situated (Rogers, 1974). It carries an opportunity cost that could appreciate or depreciate over time. Political capital significantly impacts managerial actions and organizational outcomes (Hitt et al., 2021).

Despite the extensive exploration of managerial cognition, human capital, and social capital within the DMC framework, little is known regarding the role of political capital, and its integration into the DMC framework remains underexplored. Understanding how political capital interacts with cognitive, human, and social capital could provide a more comprehensive understanding of how managers navigate complex environments, influence stakeholders, and shape organizational strategies. This presents an opportunity for future research to delve deeper into how political capital contributes to the development and utilization of DMCs, potentially enhancing the explanatory power of the DMC

framework in diverse organizational settings.

### 3. Methodology

#### 3.1. Data collection

Data collection for our study consisted of several sub-steps, such as keyword identification, database selection, and the search and screening of the output through a set of inclusion and exclusion criteria to arrive at the final corpus of publications. Identifying keywords was crucial, considering that including or excluding a single keyword could result in broader or narrower initial contributions. We leveraged the combined expertise of the coauthors and readings from the relevant literature to identify dynamic managerial capability, dynamic managerial capabilities, and the three underlying factors: managerial cognition, managerial social capital, and managerial human capital. The recent work of Ocasio et al. (2020), who reviewed Bourdieu's concepts of capital and proposed a political capital perspective, motivated us to study its emerging relevance in geopolitics, CEO activism, and nonmarket strategies. We agreed to add managerial political capital to the list of keywords and introduced variants to the four underpinnings by replacing managerial with Board, CEO, and TMT as prefixes. These steps provided us with 18 keywords, as shown in Fig. 1.

Our next decision was where to search. We decided on Scopus, as it has built an extensive body of knowledge and has been widely used by scholars (Casprini et al., 2020; Pereira & Bamel, 2021) in the extant research. As the next step of our search strategy, we ran the query for the above keywords. We limited our search to publications in *journals*, thus excluding conference proceedings and books, as they are not considered certified cited knowledge (Ramos-Rodríguez & Ruiz-Navarro, 2004). We included only publications in *English*, resulting in a pool of 567 contributions. As a final gate, we consider publications in the areas of *business*, *economics*, *management*, and *applied psychology* in reputable, high-quality journals ranked via the Social Science Scientific Index (SSCI) 2021 Top 100 by impact factor. This search protocol provided a final set of 188 publications for our study.

#### 3.2. Bibliometric approach

Studies based on a bibliometric approach (Mukherjee et al., 2022) have been published in many subfields of the strategy literature, such as dynamic capabilities (Vogel & Güttel, 2013), internationalization (Casprini et al., 2020; Alayo et al., 2021), entrepreneurship (Baier-Fuentes et al., 2019), resilience (Linnenluecke, 2017), competitive advantage (Nayak et al., 2022) and directorate ties (Caiazza & Simoni, 2019). A bibliometric approach enables us to employ a quantitative lens for the description, evaluation, and monitoring of published research (Mukherjee et al., 2022) and provides an unbiased review on the basis that the references of a research paper form its foundations, upon which both theory and empirical findings are built (George et al., 2022; Mukherjee et al., 2023). We referenced and followed the methodology used by various scholars when using bibliometric techniques (Donthu et al., 2021; Saggese et al., 2016; Ramos-Rodríguez & Ruiz-Navarro, 2004; Casprini et al., 2020). While multiple techniques are leveraged in bibliometric analyses, they can be broadly grouped into performance analyses and science mapping (Donthu et al., 2021). A performance analysis evaluates the performance and contribution of the authors, institutions, and publications. Broadly, productivity is reflected through the volume of publications and their influence through citations. Science mapping reveals the knowledge structure and connections across the research constituents. This information enables a rigorous quantitative review of the subjective evaluation of the literature of any line of research (Donthu et al., 2021). We have pursued a multimethod approach through citation analysis and bibliographic coupling (Kessler, 1963) to help us arrive at our findings.

Network analysis is the core of bibliometric studies. Clustering and

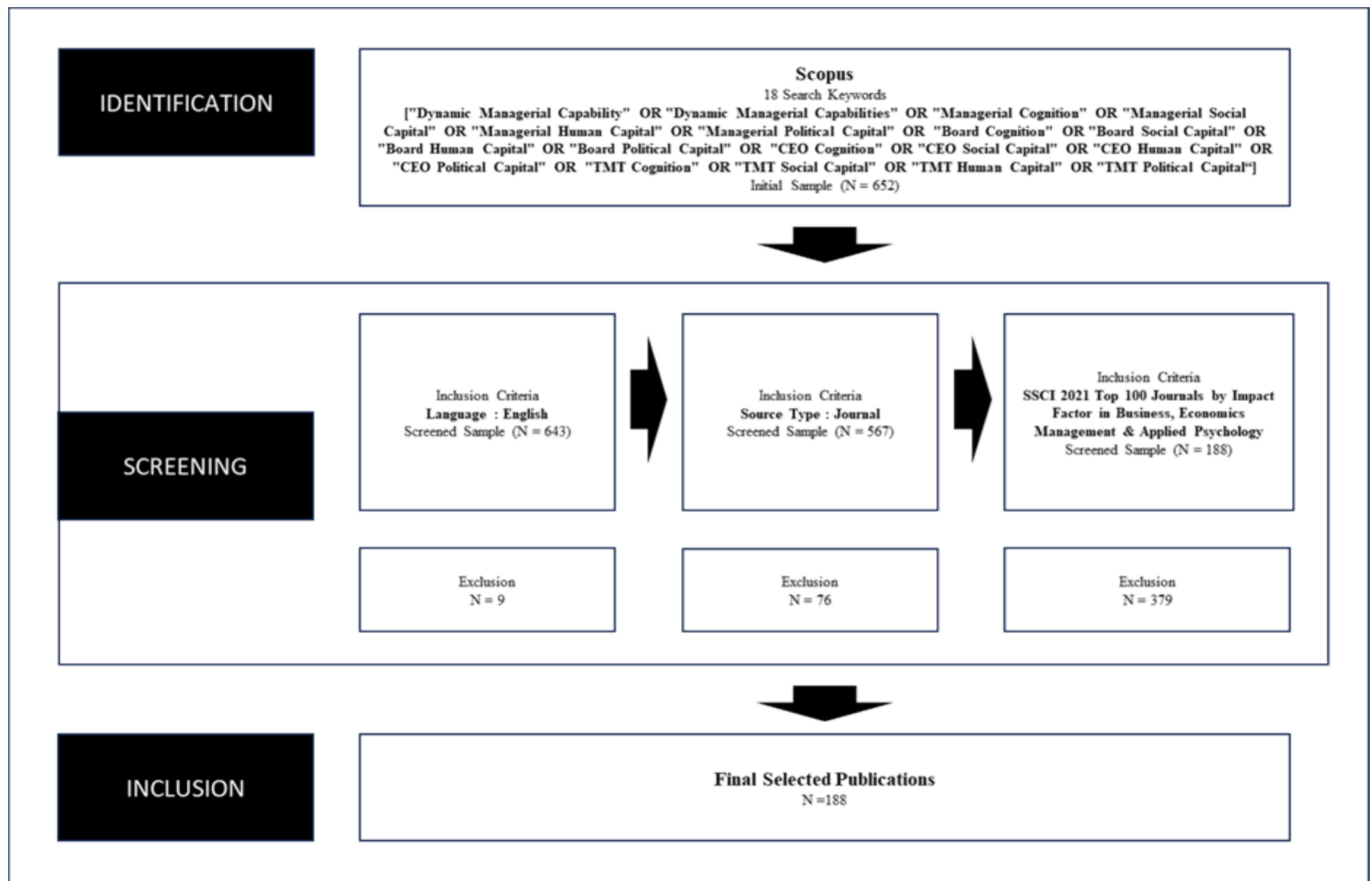


Fig. 1. Protocol for data collection.

visualization are techniques often used for network analysis. Clustering creates thematic groupings that allow us to observe the development of the knowledge structure of DMCs. In our study, clusters are formed through bibliographic coupling. VOSviewer software (Meng et al., 2020; Van Eck & Waltman, 2010) was used to visualize the connections between publications and authors, considering the large volume of information, and enabled us to draw meaningful inferences.

### 3.3. Thematic coding of future research directions

Through this attempt to synthesize the extant knowledge on DMCs, a core aim is to provide a forward-looking view of the domain. We achieve this through a thematic analysis of future research directions or opportune areas for further studies listed by the authors through their publications over the last three years (2021–2023). We focus only on these three years to zone in on the latest thinking in the domain of DMCs. Through the 49 publications available after filtering, we believe that we have a significant representation of the scholarly thoughts in the field to form the basis of our arguments. While some of these recommendations represent multiple themes, we have used our judgment toward these alignments. The analysis revealed increased scholarly interest in the multilevel applicability of political capital; the exploration of personal characteristics such as overconfidence, narcissism, etc.; the traits of CEOs and TMTs in the context of DMCs; and the study of DMCs in conjunction with other theories such as the theory of attention and behavioral theory and in various contexts such as emerging markets and internationalization endeavors. We synthesize such thinking in the forward-looking section as future research directions.

## 4. Findings & analysis

### 4.1. Growth in research output

The number of publications often constitutes a measure of the output from research in a particular domain (Larsen & Von Ins, 2010). The publication trends of the 188 papers identified per the above review protocol are shown in Fig. 2. Starting with the article by Stubbart in 1989, it took approximately 27 years (until 2015) to publish the first 50 % of the articles in our study. The remaining 50 % of the body of knowledge was published over the last 7 years, demonstrating an increased interest in DMCs. This upsurge in momentum has continued, with the highest single-year output at 20 publications recorded in 2022 and 26 % of the overall publications (49 out of the 188) emanating since 2021.

A preliminary analysis revealed that the 188 publications were published across 33 journals with diverse multidisciplinary perspectives and high impact factors per the SSCI 2021. The 15 most prolific journals on DMCs are listed in Table 1. The Strategic Management Journal (SMJ) has 48 publications and over 10,000 citations and, thus, dominates this domain. Five other journals, viz., Journal of Business Research, Journal of Management Studies, Journal of Management, Strategic Organization, and Industrial Marketing Management, have had double-digit publications. The Academy of Management Annals has had the most citations per publication (254), indicating a high level of engagement with the published content.

Our analysis revealed that Constance E. Helfat, Stephan C. Henneberg, Pamela S. Barr, Sarah Kaplan, Danny Miller, and Stefanos Mouzas were the most prolific authors, with 3 or more publications in the study set (Table 2). The coauthor Helfat had two seminal publications on DMCs, viz., Adner & Helfat (2003) and Helfat & Martin (2015), and has

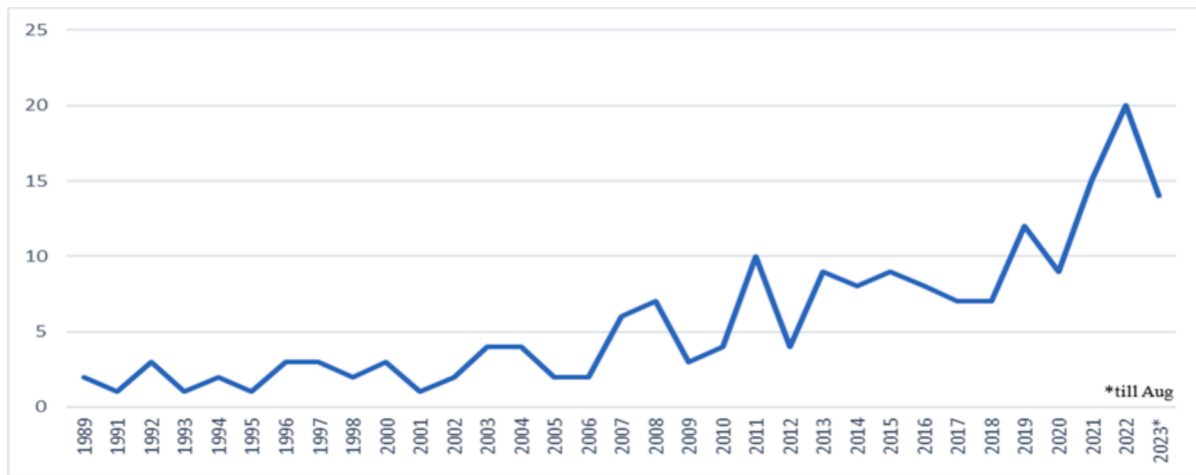


Fig. 2. Number of publications from 1989 to 2023 (till Aug).

**Table 1**  
Top 15 Journals with publications on DMC.

No of Publications	Journal	SSCI 2021 Impact Factor	Citations Received	Citations / Publications
48	Strategic Management Journal	8.641	10,466	218
17	Journal of Business Research	7.55	314	18
16	Journal of Management Studies	7.388	1996	125
13	Journal of Management	11.79	2988	230
13	Strategic Organization	5.409	178	14
10	Industrial Marketing Management	6.96	391	39
7	Academy of Management Journal	10.19	1077	154
7	European Management Journal	5.075	182	26
5	International Business Review	5.915	197	39
4	Journal of Business Venturing	12.07	249	62
4	Journal of Business Ethics	6.43	214	54
4	Journal of Organizational Behavior	8.174	116	29
4	Journal of Intellectual Capital	7.198	48	12
3	Academy of Management Annals	16.44	762	254
3	Organization Studies	6.306	213	71

recorded the highest number of citations per publication at 631.7. Table 2 also highlights the author collaborations, with only Kaplan and Budhwar publishing single-authored articles. While some prolific authors, such as Helfat, Henneberg, Barr, Kaplan, Mouzas, and Budhwar, have not contributed any articles after 2015, others, such as Miller,

Blettner, and Boon, have remained active. Overall, 415 authors have published on DMCs. Chen Y had 2 publications in 2023 and is among the 125 (30 %) emerging authors who contributed a publication for the first time during the last 3 years, bringing fresh and diverse thinking to the research on DMCs. However, this large influx of new authors also indicates that the research on DMCs, while widening, is presently fragmented.

Citations offer us an objective measure of the most referenced publications (Samiee & Chabowski, 2012). Table 3 shows the 10 most cited publications over the 1989–2023 period. Tripsas & Gavetti (2000) who reported that managerial cognition influences shifts in capabilities in new learning environments, thereby helping organizational adaptation, was the most cited publication, with 1518 citations. Carpenter et al. (2004), with 1338 citations, identified individual and group cognition and behavior and suggested that organizations reflect their top management teams. The most recent publications in this set of 10 date back to 2015, reinforcing the fact that works published earlier in the study period have been available to the scientific community for a longer extent of time, creating a greater opportunity to be cited (Ramos-Rodríguez & Ruíz-Navarro, 2004). The article by Sun et al. (2016), which delved into board political capital, was the most cited article in the post-2015 timeframe, with 187 citations. The literature review by Bromiley & Rau (2016) and the study by Yang et al. (2019) are the two publications with the next highest citation counts.

#### 4.2. Thematic clustering of the content through bibliographic coupling

While the previous sections have demonstrated the increased scholarly contributions to the growing corpus of literature on DMCs, we examined the development of the field over the study period. In this section, bibliographic coupling was used to build upon the above understanding and obtain a coherent view of the DMC knowledge structure.

Bibliographic coupling through VOSviewer organized the publications into seven clusters (Fig. 3): upper echelons (red cluster), cognitive biases (green cluster), cognitive strategic groups (blue cluster), capability configurations (yellow cluster), issue interpretation (pink cluster), individual & group characteristics (black cluster) and market & network orientations (orange cluster). These are detailed below.

##### Cluster 1: Upper Echelons

This cluster links DMCs to the upper echelons (UE) of management represented through the Board, CEO, and TMT. We find subthemes of research interest specific to cognition, human capital, social capital, and political capital, as well as configurations of these capabilities particular to the UE.

Recent studies on these capabilities and capitals demonstrate

**Table 2**  
Most prolific authors & their collaborations.

No of Publications	Author	Publications & Author Collaborations	Citations Received	Citations / Publications
6	Helfat C.E.	Harris & Helfat (1997); Castanias & Helfat (2001); Adner & Helfat (2003); Leiponen & Helfat (2010); Helfat & Peteraf (2015); Helfat & Martin (2015)	3790	631.7
4	Henneberg S.C.	Öberg, Henneberg & Mouzas (2007); Mouzas, Henneberg & Naudé (2008); Corsaro, Ramos, Henneberg and Naudé, 2011; Öberg, Henneberg & Mouzas (2012)	261	65.3
3	Barr P.S.	Nadkarni & Barr (2008); Marcel, Barr & Duhaime, 2011; Kiss & Barr (2015)	606	202
3	Kaplan S.	Kaplan (2008); Kaplan (2011); Eggers & Kaplan (2013)	841	280.3
3	Miller D.	Miller & Chen (1996); Miller & Xu (2020); Andrevski, Miller, Le Breton-Miller & Ferrier (2022)	307	102.3
3	Mouzas S.	Öberg, Henneberg & Mouzas (2007); Mouzas, Henneberg & Naudé (2008); Öberg, Henneberg & Mouzas (2012)	197	65.7
2	Blettner D. P.	Wright, Paroutis & Blettner (2013); Saraf, Dasgupta & Blettner, 2022	123	61.5
2	Boone C.	Buyl, Boone & Matthyssens (2011); Post, Lokshin & Boone (2022)	52	26
2	Budhwar P. S.	Budhwar (2000); Budhwar & Sparrow (2002)	152	76
2	Chen Y.	Chen & Yi (2023); Zhang, Peng, Shan & Chen (2023)	3	1.5

scholarly interest in a more nuanced focus on the core constructs. A better understanding of UE cognition is achieved through proxies for difficult-to-measure psychological constructs, unlocking interest in diverse practical implications, such as the impact of early-life trauma on CEOs' cognition (O'Sullivan et al., 2021). Similarly, human capital constructs such as experience have considered product management experience (Ener, 2019) and industry-specific experience (Krause & Pullman, 2021), whereas education is represented in the form of specialized education (Greven et al., 2022) and domain-specific education (Sarto et al., 2019). Social capital has seen segmentation as external and internal social capital. External social capital is measured through external directorship ties (Barroso-Castro et al., 2016; Chen et al., 2016) and centrality within the board's interlocked network (Sauerwald et al.,

2016), whereas internal social capital relies on the board's coworking experience (Barroso-Castro et al., 2016) and independent directors' tenure overlap (Chen et al., 2016). Board political capital is operationalized through current or previous work experience in political entities (Gao et al., 2022). Like constructs, a progressively broader set of contexts has also been explored, such as opportunity development (Roelandt et al., 2022), internalization (Purkayastha et al., 2021), product development (Greven et al., 2022), product market entry (Ener, 2019), CEO change (Chahine & Zhang, 2020) and CSR (Reguera-Alvarado & Bravo-Urquiza, 2022; Wang et al., 2023).

Increased DMCs of UE through the accumulation of the underlying factors has demonstrated nonlinear effects on outcomes such as higher levels of TMT human capital, which have caused increased failure in market entry (Ener 2019), whereas emerging market firms have a greater propensity to internationalize when monitoring and control exercised by the board (through aggregated experiences and education) is minimal or abundant (Purkayastha et al., 2021). Overindulgence in political favors raises the risk of regulatory enforcement on the firm by authorities (Leung & Sharma, 2021), and regime changes common to emerging economies could evaporate political capital and even turn it into a liability (Gao et al. 2022). However, such studies are still limited and provide avenues for further exploration.

#### Cluster 2: Cognitive biases

The cognitive biases of managers affect their strategic foresight (Li & Sullivan, 2022), impacting their decisions on resource allocation and the ability to seize market opportunities (Zakrzewska-Bielawska et al., 2022). Cognitive myopia leads managers to narrow their strategic options and results in inadequate responses (Czakon et al., 2023). Managers' cognitive evaluation of triggering events induces bias in their response to innovation strategies. Negative events (e.g., threat perceptions) bias them toward the development of more innovative products (Plambeck, 2012) and the enhancement of capabilities (Sarkar et al., 2018). On the other hand, perceptions of business and social pressures positively bias managerial focus on proactive environmental strategies and accelerate innovation capability development (Yang et al., 2019).

Different ventures competing in the same environment make varied choices based on the perceptions of individual managers. These perceptions are conditioned and modified by managers' cognitive biases, leading to some ventures being more successful than others. (Acedo & Jones, 2007). Overconfidence (hubris), biases TMTs with international experience in their search strategies, resulting in persistent innovation underperformance (Zhong et al., 2022). Overall, the cognitive aspects of internationalization have received relatively less attention.

The cognitive impact on social and environmental strategies is an emerging area of interest among scholars. Managers' urgency and feasibility assessments bias which social issues their firms decide to engage with (Georgallis, 2017), their past experiences with different stakeholder pressures influence their green investment decisions (Schaltenbrand et al., 2018), and their ability to manage multiple cognitive frames affects their concerns for economic growth, social prosperity, and the natural environment (Murcia & Acosta, 2023).

#### Cluster 3: Cognitive Strategic Groups

This cluster focuses on the central theme of structure-strategy-action. Managers establish cognitive simplicity by classifying competition into clusters called cognitive strategic groups, i.e., groups of firms whose top managers hold similar or shared mental models of strategy within their industry (Spencer et al., 2003; Kabanoff & Brown, 2008; McNamara et al., 2002). While the industrial organization (IO) economics paradigm uses a deterministic approach to define strategic groups, the choice perspective that drives the cognitive strategic group categorization is rooted in the manager and their beliefs or interpretations toward driving actions (Nicholls-Nixon et al., 2000; Kiss & Barr, 2015). The research clearly shows that managers define their categories much differently than scholars do (Stubbart, 1989). Studies have shown that managers consider the ownership type (Peng et al. 2004), industry velocity (Nadkarni & Brar, 2008), competitive repertoire (Miller & Chen, 1996),

**Table 3**  
Most Cited Publications and their Contribution.

Citations Received	Authors	Title	Year	Journal	Contribution
1518	Tripsas M.; Gavetti G.	Capabilities, cognition, and inertia: Evidence from digital imaging	2000	Strategic Management Journal	Organizational adaption through shift in capabilities driven by managerial cognition in new learning environments
1338	Carpenter M.A.; Geletkancz M.A.; Sanders Wm.G.	Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition	2004	Journal of Management	Overview of the Upper Echelons research highlighting the complex roles played by top managers and top management teams
902	Adner R.; Helfat C.E.	Corporate effects and dynamic managerial capabilities	2003	Strategic Management Journal	Introduced the concept of DMC outlining the managerial role in orchestrating the firm's asset portfolio
865	Duriau V.J.; Reger R. K.; Pfarrer M.D.	A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements	2007	Organizational Research Methods	A comprehensive review of content analysis in organization studies calling out the interesting results in reserch in managerial cognition
858	Helfat C.E.; Peteraf M.A.	Managerial cognitive capabilities and the microfoundations of dynamic capabilities	2015	Strategic Management Journal	Identify types of cognitive capabilities that underpin DMC for sensing, seizing, and reconfiguring, and explain their impact on organizations during strategic change
807	Leiponen A.; Helfat C.E.	Innovation objectives, knowledge sources, and the benefits of breadth	2010	Strategic Management Journal	Greater breadth of innovation objectives and knowledge sources leads to innovation success and counteracting firms' natural cognitive tendencies to search narrowly along familiar avenues.
542	Hahn T.; Preuss L.; Pinkse J.; Figge F.	Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames	2014	Academy of Management Review	Understanding of the role individual cognition plays in managerial decision making during sensemaking and interpretation of ambiguous issues
536	Reger R.K.; Huff A.S.	Strategic groups: A cognitive perspective	1993	Strategic Management Journal	Managers as decision makers through their perceptions and cognitions, group firms in subtle ways that can be expected to influence industry evolution.
511	Acquaah M.	Managerial social capital, strategic orientation, and organizational performance in an emerging economy	2007	Strategic Management Journal	The relationship between managerial social capital and organizational performance is contingent on an organization's competitive strategic orientation
504	Helfat C.E.; Martin J. A.	Dynamic Managerial Capabilities: Review and Assessment of Managerial Impact on Strategic Change	2015	Journal of Management	Review and synthesize empirical research on the role and impact of managerial capabilities directed toward strategic change

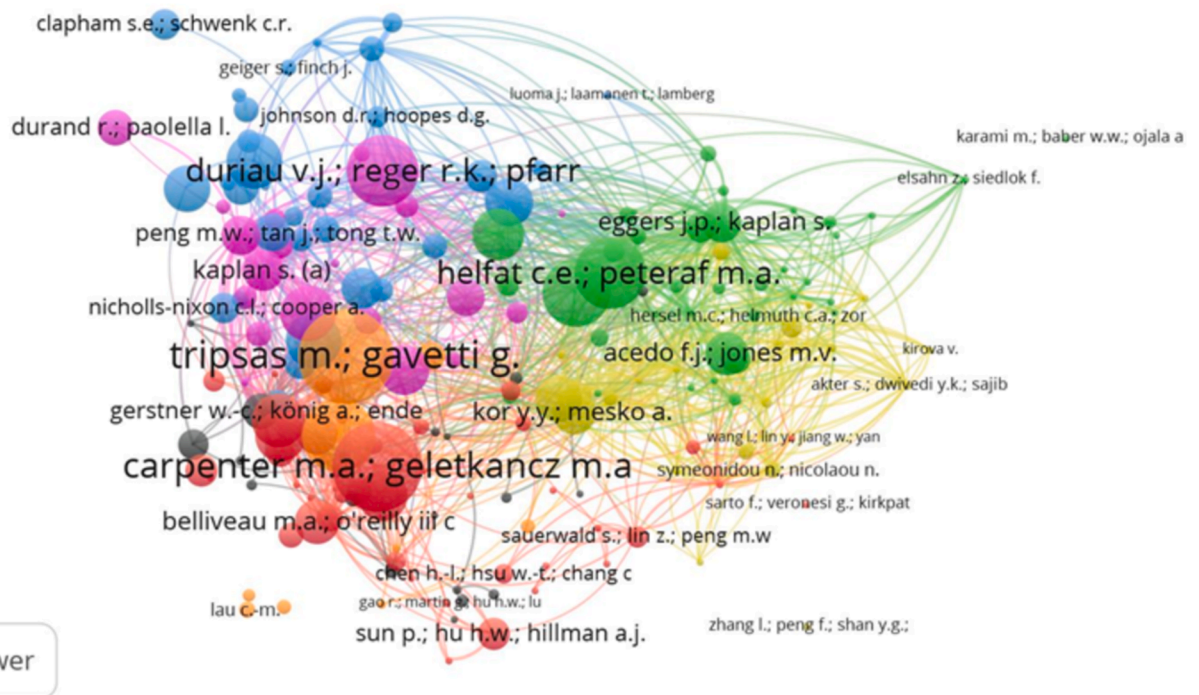


Fig. 3. Cluster visualization through VOS viewer.

and competitive action routines (Luoma et al., 2022) to classify firms cognitively into strategic groups. Levy (2005) found that the cognitive processes of 'noticing and constructing meaning' about the environmental impact a firm's propensity to expand globally. Managers'

perceptions are important, as they shape strategy formulation, strategic action, and industry structure (Reger & Huff, 1993).

Individual mental models of competition among managers vary depending on their being in different firms and functions (Daniels et al.,

1994). While managers of firms in a strategic group make similar decisions in critical areas, Reger and Huff (1993) argued that there could be some variances, and such intragroup differences indicate the future evolution of the industry, as some firms take outlier positionings and provide opportunities for further exploration. While some firms fit a strategic group better, peripheral players are linked less consistently, making the boundaries of cognitive strategic groups fuzzy or ill-defined. In new ventures, founders and managers use an adaptive strategic experimentation approach to shape their mental models to interpret the environment and compete (Nicholls-Nixon et al., 2000).

#### Cluster 4: Capability Configurations

Achieving higher performance levels by combining various resources and capabilities has been considered a central managerial activity (Teece 2012). Helfat & Martin (2015), while reviewing DMCs, called for the study of combinations of capabilities that constitute DMCs. Two-thirds of the publications that form this cluster originated over the last four years. Holzmayer and Schmidt (2020) were among the first to analyze the joint impact of all three underlying factors of DMCs in the context of related business diversification of the English Premier League clubs.

Managerial cognition, human capital, and social capital are intertwined. They shape the dominant logic of the managers and that of the firm (Kor & Mesko, 2013), generating new capabilities such as asset management capabilities (Fainshmidt et al., 2017). These provide a more sophisticated understanding of organizational design (Harvey, 2022) and shape the different roles that marketing managers play (i.e., pilot, advisor, expert, and synergist) in strategic change programs (Kirova 2023), etc. Harvey and Kudesia (2023) examined the interface of the cognitive capabilities of leaders with their emotional capabilities toward coping with ambiguity and responding to strategic change. Huy & Zott (2019) established emotional regulation as a core foundation of DMCs and its linkage to managerial human and social capital. Similarly, the multilevel relational aspects of DMCs and networking capabilities were studied by Martin and Bachrach (2018).

In the entrepreneurial context, interactions between founder and venture capabilities lead to the formation of new ventures, and different ventures can achieve the same outcomes through different unique configurations of capabilities (Razmdoost et al., 2020). Interactions between human capital investments and the founder's startup experience underpin the resource allocation process (Symeonidou & Nicolaou, 2018), and different capability portfolios explain the early internationalization of small and medium-sized enterprises (Vuorio & Torkkeli, 2023).

#### Cluster 5: Issue Interpretation

Strategic issues are often ill-structured and ambiguous and require interpretation (Crilly & Sloan, 2012) for managers to shape meaning and decide on appropriate responses—action or inaction (Andreuski et al., 2022). Managers rely on their cognitive capabilities to make unfamiliar individuals familiar through schemas (Bingham & Kahl, 2013), frames (Hahn et al., 2014), categorizations (Durand & Paoletta, 2013), and internal logics (Wright et al., 2013). Common interpretations of an issue drive common understanding and responses across managers, whereas multiple interpretations due to complex logics (Crilly & Sloan, 2012) lead to varied responses, which are influenced by the personality differences across such managers (Carpenter & Golden, 1997). Issue interpretation catalyzes both discovery and creative processes, enabling entrepreneurs to exploit opportunities (Barreto, 2012), adopt market positions (Greve, 1998), engage in collaborative innovation among supply chain partners (Skippari et al., 2017), assess the extent to which they are willing to accommodate interest group pressures (Julian et al., 2008) and shape their level of commitment to actions toward issue resolution (Ginsberg and Venkatraman, 1995).

Interpretation is also represented through the frame of competitive rivalry via facades and competitive rationales. Managers leverage facades to create trust with stakeholders, pursue a hidden agenda, or try to hide a situation based on what is advantageous (Baumard, 2014).

Managers also use competitive rationales that are complex and difficult for competitors to interpret (Andreuski et al., 2022). Decision-making is not easy for managers when faced with dialectical tensions, i.e., when they swing between opposite interpretations of competing demands (Karhu & Ritala, 2020), and this is an area that provides the potential for further scholarly attention.

#### Cluster 6: Individual and Group Characteristics

This cluster represents the influence of the behavioral strategy on DMCs. The behavioral and cognitive characteristics of managers individually and in groups are represented through their personality (Bromiley & Rau, 2016; Gerstner et al., 2013), traits (Lin, 2014), attributes (Nickerson et al., 2017), experiences (Cui et al., 2013), human capital (Wang et al., 2019), gender (Krammer, 2022; Post et al., 2022), attention (Srivastava et al., 2021; Zhong et al., 2021; Gerstner et al., 2013), alertness (Srivastava et al., 2021), etc. These characteristics influence their perceptions of reality and decision-making and impact organizational performance and outcomes.

Team or group characteristics were explored by Wang et al. (2019) through a governance lens in which they studied the monitoring capacity of the board by operationalizing board characteristics through interdependence, human capital, and ownership. TMT characteristics are similarly clustered as TMT experience and TMT diversity (functional, nationality, demographic, educational, and gender) (Bromiley & Rau, 2016) and female TMT representation (Post et al., 2022). Multi-level studies focusing on the influence of focal-actor characteristics, such as the impact of CEO narcissism on top managers' attention (Gerstner et al., 2013) and CEO tenure on TMT risk-taking propensity (Bromiley & Rau, 2016) have attracted the interest of scholars.

While studies have focused on a wide range of outcomes, such as the adoption of technology discontinuity (Gerstner et al., 2013), business model innovation (Heubeck & Meckl, 2022), international expansion (Lin, 2014), value-based marketing and price setting (Smith, 2020) and new product introduction (Srivastava et al., 2021), there remains significant potential for continued exploration.

#### Cluster 7: Market & Network Orientations

This cluster focuses on managers' response to changing business environments such as price fluctuations (Adner & Helfat, 2003), technological shifts (Tripsas & Gavetti, 2000) and transitional economies (Lau, 2011; Lau et al., 2008).

Uncertainty through rapid shifts in the external environment often does not provide clear signals on what actions managers should take and when. Even in a single industry experiencing a similar but changing set of external conditions, firms show performance heterogeneity due to varying responses by managers based on their ability to integrate, build, and reconfigure organizational resources and competences (Adner & Helfat, 2003). Often, the survival of a firm depends on managers being able to contextualize the changing environment through their extra-organizational ties—directorates ties (Young, 2005), ties with Guanxi (Young and Tsai, 2008), public-private collaborations (Camarero et al., 2019), multiparty alliances (Fonti et al., 2017), etc. Managerial social networks are critical to developing market-focused strategic orientations (Lau, 2011), and extra-business group directorate ties are considered valuable strategic assets in the marketplace (Young, 2005). Such orientations influence managerial learning and organizational adaptations (Tripsas & Gavetti, 2000), competitive retaliations (Marcel et al., 2011), the effectiveness of alliances (Fonti et al., 2017), and CEO compensation in a network-based business society and governance system (Young and Tsai, 2008).

#### 4.3. Evolution of the seven DMC clusters

The evolution of the seven DMC clusters is shown in Fig. 4 and represented through five six-year blocks between 1989 and 2020 (considering that there were no publications in 1990 and 1999) and a final time block of the three most recent years covering 2021–2023. As the 2023 coverage is only up until August, four of the clusters have



Time Blocks	CLUSTERS						
	1	2	3	4	5	6	7
1989 - 1995	1		8		1		
1996 - 2002	3		8		2		1
2003 - 2008	4	1	9	1	4		4
2009 - 2014	5	11	4	3	10	3	2
2015 - 2020	16	13	2	7	2	10	2
2021 - 2023	15	12	2	11	2	6	

Fig. 4. Evolution of the seven DMC clusters between 1989 & 2023.

experienced accelerated scholarly interest since 2015: Cluster 1 (upper echelons), Cluster 2 (cognitive biases), Cluster 4 (capability configurations), and Cluster 6 (individual & group characteristics). In contrast, the research in the other three clusters, Cluster 3 (cognitive strategic groups), Cluster 5 (issue interpretation) and Cluster 7 (market & network orientations), has shown declining interest.

It is interesting how the scholarly focus has shifted from the structural side of DMCs, especially cognitive dimensions, such as strategic groups and networks, to the microfoundational levels of individual managers at various levels (Board, CEO, TMT, midlevel managers, etc.) and their characteristics, motivations, beliefs, and biases, which represent the behavioral and psychological dimensions.

4.4. Progression of the underlying factors of DMCs

In Section 4.2, the grouping under the upper echelons cluster demonstrated the linkage of the three established underlying factors of DMCs—cognition, human capital, and social capital—as well as political capital to the senior levels of managers, including the Board, CEO, and

TMT. Considering that this cluster has been the most researched since 2015, we thought it was prudent to examine the progress of each of these four factors independently across managerial levels. We searched and tagged the publications on the basis of their use of cognition, human capital, social capital, or political capital as keywords in the title, keywords, or abstract. Fig. 5 represents the number of publications for each underlying factor over the study duration (1989–2023).

Managerial cognition was predominantly studied and featured even before Adner and Helfat (2003) introduced the concept of DMCs. Studies on social and human capital have been featured more consistently after 2003 and became mainstream only after the 2015 contribution by Helfat and Martin. In 2023, the number of publications on social capital was on par with the number of publications on cognition. Studies on political capital have been published in the last three years, reinforcing its emerging role in managerial decision-making in the postpandemic world dominated by geopolitics. We also noted growing scholarly interest in researching combinations of these underlying factors, as recommended through the 2015 review of DMCs by Helfat and Martin. Various studies have considered two (combination of 2) and often three

Year	Cognition	Human Capital	Social Capital	Political Capital	Combo of 2	Combo of 3
2023	5	1	5	1		
2022	12	7	4	2	1	2
2021	8	3	3	2	1	1
2020	7	4	2			2
2019	7	5	3		1	1
2018	6	2	1			1
2017	6					
2016	4	1	3	1	1	
2015	6	3	4		1	2
2014	5	1	1			
2013	9	1	1			1
2012	4					
2011	9	1				
2010	4					
2009	2					
2008	6		1			
2007	3	1	1			
2006	1	1	1		1	
2005	1		1			
2004	4					
2003	3	2	1			1
2002	2					
2001	1		1		1	
2000	3					
1998	2					
1997	2	1				
1996	2		1			
1995	1					
1994	2					
1993	1					
1992	3					
1991	1					
1989	1	1				

Fig. 5. Progression and interplay of the underlying factors.

(combination of 3) of these underlying factors together, as shown in Fig. 5.

Another recommendation in the above review was to focus on multilevel and cross-level perspectives of DMCs as an agenda for future research. Considering the emergence of scholarly work at different levels of management, we probed further by adding Board, CEO, and TMT as prefixes to the above-listed keywords mentioned in this section. Through a timeline view (Table 4), we found that board-level publications (Gao et al., 2022; Reguera-Alvarado & Bravo-Urquiza, 2022) have appeared more regularly since 2019, whereas CEO-level studies have been spread across the study period. Studies on TMT (Zhong et al., 2022; Post et al., 2022) are still limited, and no patterns have been established. However, it is encouraging that a TMT mapping to each underlying factor exists and needs to be bolstered through more scholarly pursuits. Firms have leveraged the board for their social and human capital and rarely their cognition. Additionally, more recently, political capital has featured a distinct interest area at the board level. Researchers have also studied the effects of social capital and human capital more often for CEOs regarding their cognition.

Having established the mapping to the board, CEO, and TMT, we aim to understand the interactions of DMCs across these different levels of managers, as represented in Table 5. Only a few studies have attempted a cross-level exploration, focusing primarily on the Board and CEO levels (Zhang et al., 2023; Fu & Sun, 2023).

## 5. DMC 2.0 – Political capital as an underlying factor of the DMC

In our analysis in Section 4.4 on the progression of the underlying factors of DMCs, we find that cognition, human capital, and social capital were being researched individually even before Adner and Helfat integrated them into the DMC definition in 2003. The subsequent scholarly pursuits in the domain of DMCs have embedded these three factors as the underpinnings of DMCs. Building on the review of capital by Ocasio et al. (2020), we added political capital to our search criteria to examine its centrality to DMCs. The bibliographic coupling in Section 4.2 established the clustering of political capital with cognition, human capital, and social capital as integral to UE decision-making.

**Political Capital:** Political capital has been defined in the extant literature as capital for purposive political action (Casey, 2008) to influence public policy or government decisions (Schugurnesky, 2000), which makes the realization of interests possible that, in its absence, would not be achieved. It accumulates in relational ties (Nee & Opper, 2010). Building on Bourdieu's typology of capital and extending it to organizational settings, Ocasio et al. (2020) conceptualized political capital as the variety of economic, social, and cultural resources available to individuals and groups to affect organizational decisions, actions, and outcomes. Knowing these resources enhances the ability of managers and leaders (Ocasio et al., 2020). We find a theoretical linkage to resource dependence theory, with political capital viewed as a crucial firm resource (Leung & Sharma, 2021), as well as with agency theory,

**Table 4**  
Leverage of underlying factors at organizational levels.

SL No.	Level	Year	Social Capital	Political Capital	Human Capital	Cognition	Authors
B1	Board	2023		X			Fu & Sun (2023)
B2	Board	2022	X				Reguera-Alvarado & Bravo-Urquiza (2022)
B3	Board	2022		X			Gao et al. (2022)
B4	Board	2021			X		Purkayastha et al. (2021)
B5	Board	2021		X			Murtinu (2021)
B6	Board	2021		X			Leung & Sharma (2021)
B7	Board	2021	X				(Huang et al., 2021)
B8	Board	2019			X		Sarto et al. (2019)
B9	Board	2019			X		Wang et al. (2019)
B10	Board	2016	X		X		Chen et al. (2016)
B11	Board	2016		X			Sun et al. (2016)
B12	Board	2016	X				Sauerwald et al. (2016)
B13	Board	2016	X				Barroso-Castro et al. (2016)
B14	Board	2014	X				Wurthmann (2014)
B15	Board	2014			X		Khanna et al. (2014)
B16	Board	2006				X	Haleblian & Rajagopalan (2006)
C1	CEO	2023	X				Wang (2023)
C2	CEO	2023	X				Ursel et al. (2023)
C3	CEO	2023	X				Wang et al. (2023)
C4	CEO	2023	X				Sun et al. (2016)
C5	CEO	2023	X				Zhang et al. (2023)
C6	CEO	2022				X	Malhotra & Harrison (2022)
C7	CEO	2021				X	O'Sullivan et al. (2021)
C8	CEO	2020			X		Chahine & Zhang (2020)
C9	CEO	2020			X		Miller & Xu (2020)
C10	CEO	2019			X		Li & Patel (2019)
C11	CEO	2016				X	Fernández-Pérez et al., 2016
C12	CEO	2015	X		X		Hmieleski et al. (2015)
C13	CEO	2015	X				
C14	CEO	2013	X		X	X	Kor & Mesko (2013)
C15	CEO	2011			X		Morse et al. (2011)
C16	CEO	2008	X				Young & Tsai (2008)
C17	CEO	2008				X	Xia and Liu (2022)
C18	CEO	2006	X		X		Fiss (2006)
C19	CEO	2003			X		Buchholtz et al. (2003)
C20	CEO	1997			X		Harris & Helfat (1997)
C21	CEO	1996	X				Belliveau et al. (1996)
C22	CEO	1989			X		Finkelstein & Hambrick (1989)
T1	TMT	2022			X		Zhong et al. (2022)
T2	TMT	2022				X	Post et al. (2022)
T3	TMT	2022		X			Xia & Liu (2022)
T4	TMT	2016				X	Bromiley & Rau (2016)
T5	TMT	2005	X				Young (2005)

**Table 5**  
Cross-level interactions of underlying factors.

Publication	Interaction across levels	Implication
<b>Social Capital</b>		
Zhang et al. (2023)	Independent directors' social capital replaces or supplements a CEO's social capital, creating positive or negative synergies.	Firm's ability to manage litigation risks. Firm's ability to leverage managerial social capital
<b>Human Capital</b>		
Allen et al. (2022)	When frictions for one type of human capital decrease, firms are motivated to place greater emphasis on human capital that is interdependent in production where frictions are unchanged.	When the NFL implemented free agency and a salary cap in the market for player talent in 1993, limiting the ability of teams to stockpile talented players, NFL teams responded by increasing their emphasis on coaching talent in the production of wins.
<b>Political Capital</b>		
Fu & Sun (2023)	CEOs with political capital have a higher propensity to appoint politically connected directors	Director level appointments
Murtinu (2021)	Governmental minority shareholder presence on Board enables entrepreneur to exploit market changes better	Improved governance and uncertainty reduction impacting entrepreneurial performance positively

which addresses principal–principal conflict (Sun et al., 2016; Murtinu 2021) in an environment of firm–government interdependence (Fu & Sun, 2023).

While the linkage of managerial networking with government officials (political leaders and bureaucratic officials) and community leaders to organizational performance in an emerging economy was highlighted by Acquaaah (2007), under the construct of social capital, recent studies have linked relational ties with such stakeholders under political capital (Gao et al., 2022). Having connections or ties alone does not help achieve the desired goals. They must be activated, and their value must be exploited by mobilizing political capital (Mariotti & Delbridge, 2012). The extant literature on social capital in organizational settings provides an incomplete understanding of how political capital operates. While social capital is about collaboration and cooperation, political capital extends beyond identification through bonding to include brokerage (Ocasio et al., 2020).

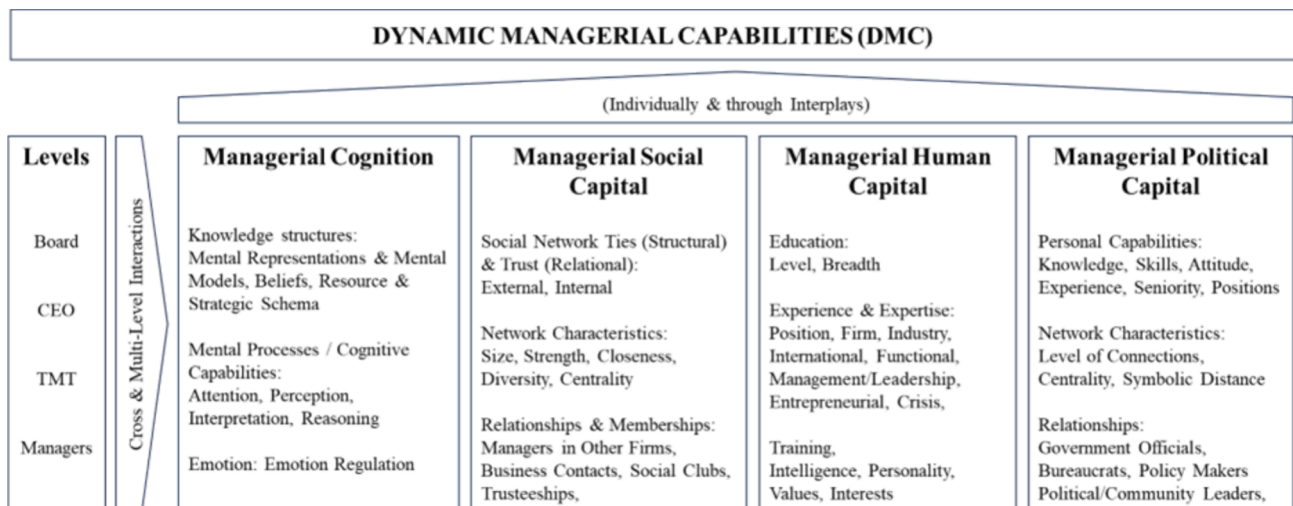
Bringing together the findings and analyses presented in this paper, we believe that we can contribute to extending DMC theory by

incorporating managerial political capital as the fourth underlying factor of DMCs. While Adner & Helfat (2003) considered managerial cognition, managerial human capital, and managerial social capital while conceptualizing DMCs, there is enough evidence of the criticality of managerial political capital across geographic regions and industries through the political preferences and leanings of CEOs (Cohen et al., 2019), increased CEO activism on social and policy issues (Chatterji & Toffel, 2019), engagement through the advisory capacity of nations (Cohen et al., 2019) and other CEO nonprofit memberships in the space of education, healthcare and bodies such as the business roundtables (Maher, 2022) and business councils (Bedendo & Siming, 2021). Political lobbying is increasingly valued in the new multipolar world, directly influencing executive compensation (Brodmann et al., 2019), and is crucial when outside directors are hired (Fu & Sun, 2023).

Through Fig. 6, we build on the underlying factors outlined by Helfat and Martin (2015) and propose a DMC 2.0 representation by incorporating managerial political capital. We also connect these four underlying factors across the hierarchical levels of leadership/management. While these underlying factors are needed and valued across levels, the extent of their need and applicability differs.

Managerial political capital has attributes that resemble managerial human capital, viz., experience and membership, and similar to managerial social capital, it accrues through relational ties. However, unlike social capital, political capital is linked to positional power and institutional structures (Nee & Opper, 2010). Through the relevant publications in our review and the work by Schugurnesky (2000), we have included the following dimensions of political capital in the above framework: personal capabilities, network characteristics, and relationships. Personal capabilities include knowledge, skills, attitudes, experience, seniority, positions, etc. Managers must have both factual and procedural knowledge to participate in political networking. They need the necessary skills to influence, which, in most cases, varies from context to context. Building and renewing such skills is driven by their learning capabilities. Attitudes are related to the psychological traits of managers, such as self-esteem, motivation, persistence, patience, and trust in the political system. Network characteristics include the level of connections, centrality, and symbolic distance. Closeness to power is gauged through the centrality of the networks of managers, their participation in decision-making (on policies), and symbolic distance (the presence of people in positions of power who share similar identities as those of the managers, provide inspiration, and can act as role models). Finally, relationships categorize the key stakeholder groups—government officials, bureaucrats, political/community leaders, etc.

Taking a capability view of political capital shifts the focus from the



**Fig. 6.** Framework for DMC and its underlying Factors.

quantitative nature (i.e., the number or proportion) to the qualitative characteristics (i.e., the level, gender composition, etc.), and it broadens the theoretical connections beyond resource dependence theory, wherein the government is an external dependency for firms to benefit from. The emerging research on board political capital has leveraged risk aversion theory and diversity theory to address the case of gender representation in board compositions for better regulatory enforcement (Leung & Sharma, 2021), the behavioral theory of the firm to understand the motivation for building board political capital, and upper echelons theory to suggest the leverage of TMT political capital on the innovation performance of the firm (Xia & Liu, 2022).

## 6. Looking forward

To achieve our intent of providing a forward-looking view of DMCs, we coded the future directions for research listed by the various authors in their publications for the 2021–2023 period. We believe that the synthesis of the combined intellectual thinking of these scholars provides the best representation of what needs more exploration to advance the knowledge in this domain. In the commentary that follows, we elaborate on the broad themes (Table 6) of scholarly thinking that emerged from the analysis.

The four underlying factors are rich in the attention they have already received. However, there is more to uncover and understand. We have already demonstrated through Table 4 that there has been disproportionate scholarly interest in board political capital. Thus, Xia and Liu (2022) recommended studying political capital at the TMT level, thereby potentially broadening the exploration of this underpinning of DMCs across managerial levels. While various scholars have established the linkage of DMCs to positive performance outcomes, further exploration of the leverage of political capital during performance shortfalls involving problematic searches (e.g., bribery, favors, etc.) is recommended (Gao et al., 2022). Exploring personal characteristics such as overconfidence, narcissism, hubris, and traits of CEOs and TMTs will enable an understanding of the effectiveness of leaders in specific environments. Similarly, exploring CEO power, associated with CEO tenure, is relevant to CEO succession and duality. There is a distinct opportunity to investigate the impact of such CEO characteristics on firm performance over a longer time horizon in different business models. Studying DMCs in conjunction with other theories and concepts, such as the theory of attention (Roelandt et al., 2022), behavioral theory (Gao et al., 2022), and ambidexterity (Greven et al., 2022), opens avenues for enriching its core domain. Authors such as Li & Sullivan (2022), Czakon et al. (2023), Karami et al. (2022), and Krammer (2022) have raised interesting questions to pursue continued attention to heuristics and biases.

Helfat and Martin (2015) identified research opportunities through multilevel and cross-level issues. In the scholarly response to the above call and, through their efforts, we identified new possibilities for further research, such as exploring the interplay of the cognitive complexity of CEOs and that of other key executives (Malhotra & Harrison, 2022), the impact of manager's cognition on team behavior concerning experimentation, environmental scanning and emotional reactions to change (Harvey, 2022), individual-level perceptions affecting the decisions of collectives such as TMTs (Mount et al., 2021), and the impact of cognitive myopia for low- and middle-level managers and family business owners (Czakon et al., 2023). A second area voiced by Helfat and Martin (2015) was for studies to consider combinations of the underpinnings of DMCs. Some potential areas for further research identified through studies in this genre include examining a possible recursive effect between managerial social capital and managerial cognition and whether managerial cognition increases managerial human capital through conscious and in-depth information processing (Heubeck & Meckl, 2022).

The relevance and richness of this domain stand to gain, as various authors have suggested, new ways to explore a broader set of

**Table 6**  
Thematic Grouping of Future Research Directions.

Underpins / Underlying Factors of DMC	Snihur & Eisenhardt (2022)	Whether the depth v. breadth of mental models is more important and whether an emphasis on a particular feature like profitability is essential?
	Purkayastha et al. (2021)	Effect of the board's human capital on the entry mode choice
	Gao et al. (2022)	Explore various political strategies by the firm in response to performance shortfalls (other than bribery)
	Leung & Sharma (2021)	Would politician directors with central ties dissuade their firms from committing corruption and would female politician directors use their ties to persuade the regulatory body not to expose the corrupt activities of their connected firms?
	Fu & Sun (2023)	Delve deeper into the heterogeneous nature of the business-government interdependence.
	Xia & Liu (2022)	Distinguishing between the impact of TMT political capital on different types of innovation, using measures other than forward patent citation counts
	Zhang et al. (2023)	Explore the effect of social capital on CEO selection decisions
Characteristics of CEO, TMT, UE	Ursel et al. (2023)	Investigate if longer tenure correlated with strong firm performance, motivating boards to retain CEOs.
	Snihur & Eisenhardt (2022)	How do overconfident executives interpret feedback to decide when to pivot from under-performing business models?
	Chen & Yi (2023)	Investigate the relationship between the TMT traits and other types of business model design (beyond novelty and efficiency centered BMD)
Cross & Multi-level	Malhotra & Harrison (2022)	Explore the interplay between the cognitive complexity of the CEO and that of other key executives
	Harvey (2022)	Contrast and compare different paths for the impact of team leader behaviors on team behaviors and team emergent states such as experimentation and emotional reaction to change.
	Mount et al. (2021)	How individual-level perceptions affect investment decisions within collectives such as TMTs and organizational panels
	Czakon et al. (2023)	Go beyond senior level managers and test the myopia profile of low and middle level managers and family business owners
	Tawse & Tabesh (2021)	Build greater understanding of how the variance of DMC within the top management team and middle manager ranks impacts Strategy Implementation effectiveness
Combinations / Concurrent Usage	Heubeck & Meckl (2022)	Whether managerial cognition increases managerial human

(continued on next page)

Table 6 (continued)

		capital through conscious and in-depth information processing.
	Heubeck & Meckl (2022)	Examine a potential recursive effect between managerial social capital and managerial cognition
	Roelandt et al. (2022)	Use the combination of the dynamic capabilities perspective and the attention-based view in order to understand board processes.
Heuristics & Biases	Karami et al. (2022)	Dig deeper in the decision-makers' cognition and heuristics by applying Kahneman's (2017) framing theory to investigate both useful and harmful heuristics.
	Li & Sullivan (2022)	Investigate the interplay between the biases of the middle- or low-level managers and the development of their strategic foresight
	Krammer (2022)	Whether gender biases are generic or depend on the level and experience of the individual (worker, administrative, managerial, top management, etc.)
Broaden Constructs	Zhong et al. (2021)	Improve operationalization of executive <b>attention</b>
	Snihur & Eisenhardt (2022)	How do designers of high-performing business models use cognitive processes like <b>imagination</b> and <b>divergent v. convergent thinking</b> ? How do they break out of inertial frames?
	Greven et al. (2022)	Understand which other psychological foundations like <b>passion</b> underlie the formation of middle managers dynamic managerial capabilities
	Wang et al. (2023)	Explore the specific emotional attributes of CEOs, such as <b>enthusiasm, happiness, dissatisfaction, anxiety, or mixed emotions</b> , to understand the distinct role of each emotion in CSR activities.
	O'Sullivan et al. (2021)	The role of executives' <b>early-life trauma</b> in explaining between-firm differences in corporate behavior
	Li & Sullivan (2022)	Investigate other types of cognitive bias on strategic foresight, such as the managerial tendency to overlook distant times, distant places, and failures; connectivity of mental representation; or managerial <b>narcissism</b> and <b>optimism</b>
	Murtinu (2021)	What type of <b>information (e.g., hard versus soft)</b> the entrepreneur needs to anticipate policy changes.
Emerging markets, Institutions and Internationalization	Purkayastha et al. (2021)	Interaction between institutional characteristics with human capital in emerging markets
	Reguera-Alvarado & Bravo-Urquiza (2022)	Explore different legal and/or institutional contexts for analyzing corporate governance mechanisms and CSR reporting, since the influence of boards might vary depending on the environment.

Table 6 (continued)

		Gao et al. (2022)	Explore the environmental drivers of board political capital building, especially the institutional factors that shape the value of board political capital. Also explore how board political capital building is jointly influenced by behavioral and institutional factors.
		Vuorio & Torkkeli (2023)	Look at the DMCs related to cognition when seeking to explain international opportunity recognition
		Jiang et al. (2021)	Impacts of DMC on HQ–subsidiary relationships to gain further insight into their individual and collective impacts on organizational dynamic capabilities.
Stakeholder Management		Hitt et al. (2021)	How do managers build and maintain relationships with multiple principals that make different claims on firms?
		Murtinu (2021)	How an entrepreneur may overcome the pursuit of political goals put forward by the political agent (government shareholder within the venture)?
		Fu & Sun (2023)	Explore how organizations use various tactics to restructure their broken or damaged ties to important resource providers, such as key suppliers and joint venture partners, and how these restructuring tactics are moderated by dyadic, (inter) organizational contingencies
		Andrevski et al. (2022)	Antecedents and consequences of providing intentionally misleading or incomplete information about competitive rationales
		Krause & Pullman (2021)	How managers use their dynamic capabilities to manage supply chains in industries facing a maelstrom of government regulations?
Data & Methods		Kirova (2023)	Consider quantitative, observative or experimental methods to gather and balance different characteristics and functional perspectives on marketing dynamic managerial capabilities
		Jiang et al. (2021)	Consider industry-specific longitudinal dataset to capture the process of the cognitive sense-making of managers in addition to the outcome of the impact of managerial capabilities.
Extend or Replicate for Generalizability		Xia & Liu (2022)	Compare and contrast the different mechanisms that drive the relationship between TMT political capital and firm innovation performance in China and other transitional economies in dissimilar transition trajectories, such as Russia and Eastern European economies with a less regulated style, and/or economies at different phases of transition, such as Iran and Mongolia
		Vuorio & Torkkeli (2023)	Extend to different countries to examine national-level

(continued on next page)

Table 6 (continued)

	differences in the use of dynamic managerial capabilities in early and late internationalisation and international performance.
Walrave & Gilsing (2023)	Sectoral innovation patterns on managerial cognition by studying across different industries
Harvey & Kudesia (2023)	Aim to replicate our findings in a more controlled, experimental setting

antecedents and constructs—mindfulness (Harvey & Kudesia, 2023), imagination (Snihur & Eisenhardt, 2022), passion (Greven et al., 2022), mixed emotions (Wang et al., 2023), early-life trauma (O'Sullivan et al., 2021), morale (Andrevski et al., 2022), etc. At the same time, considering the burgeoning scholarly outputs in empirical settings over the last three years, particularly from China, the call for replication in alternate settings such as markets, cultures, industries, types of firms, and experimental settings is prevalent (Guan et al., 2023; Sun et al., 2021; Vuorio & Torkkeli, 2023; Ursel et al., 2023; Walrave & Gilsing, 2023; Harvey & Kudesia, 2023). Further robustness through additional considerations involving data and methods was suggested by Kirova (2023) and Jiang et al. (2021).

We noted various recommendations to pursue further research on DMCs in the context of emerging markets, institutions, and internationalization. Some of these include interactions between institutional characteristics and human capital in emerging markets (Purkayastha et al., 2021), exploring different legal and institutional contexts for analyzing corporate governance mechanisms based on the varying influence of the board (Reguera-Alvarado & Bravo-Urquiza, 2022), exploring how board political capital building is influenced jointly by behavioral and institutional factors (Gao et al., 2022), explaining international opportunity recognition through DMCs related to cognition (Vuorio & Torkkeli, 2023) and the impacts of DMCs on HQ–subsidiary relationships (Jiang et al., 2021).

Considering that managers are increasingly engaged in ecosystem play that requires them to engage beyond direct competition, it is not surprising to see various provocations to explore stakeholder management further. Managerial pursuits to build and maintain relationships with multiple principals who make different claims to firms (Hitt et al., 2021) and use their DMCs to manage supply chains in industries facing many government regulations (Krause & Pullman, 2021) are very pertinent. Similarly, entrepreneurial efforts to overcome the pursuit of political goals put forward by the political agent (government shareholder within the venture) (Murtinu, 2021) and the antecedents and consequences of providing intentionally misleading or incomplete information about competitive rationales (Andrevski et al., 2022) need attention.

Through the above mapping of future research directions on DMCs, we believe that potential possibilities to build further knowledge in the domain look encouraging. The advent of fresh thinking through first-time researchers bodes well for the future. At the same time, it is encouraging to see that progressive research since 2015 has been able to activate, though not uniformly, the various recommendations made by Helfat and Martin in their review of DMCs.

## 7. Discussion

The critical synthesis of the existing body of knowledge on DMCs demonstrates an accelerating trajectory in scholarly interest. Approximately one-quarter of the overall publications and one-third of the authors contributed to this domain for the first time after 2021. This body of work substantiates the importance of DMCs in equipping managers to perform and drive competitive advantage for firms in dynamic environments (Adner & Helfat, 2003). Compared with traditional methods

of review, the bibliometric approach, which involves performance analysis and science mapping techniques, has lent greater objectivity to our study (Kraus et al., 2022). While we identify the thematic representation of knowledge through the seven clusters and their evolution in shaping the progress in the field of DMCs, we also observe that this field is fragmented because of the significant influx of first-time authors in.

Like in any other maturing domain, we find a shift in scholarly interest from a purely conceptual focus to empirical pursuits, testing the applicability of DMCs across different industries, geographies, and contexts. While the structural view of cognition through knowledge structures, mental models, and representations dominated the early years, the process and capability views of cognition increased more recently. Receding interest in cognitive strategic groups (Cluster 3) and an increase in individual and group characteristics (Cluster 6) demonstrate this shift. Similarly, social capital has evolved from a pure structural focus (e.g., managerial ties) to a relational (e.g., trust) view, bringing centrality to the qualitative aspects of the capability. Our results showed that the research is pursuing more abstract and difficult-to-measure psychological constructs (e.g., emotions, motivations, personal characteristics) but still relies on readily available demographic proxies (e.g., education, experience) to measure them. The evolution of more robust measures for such psychological constructs is needed.

Similarly, the DMC field has benefitted from microfoundational thinking to look at managerial capabilities at the individual (e.g., CEO) and team levels (e.g., TMT) or logical groupings such as the supply chain, and across the management hierarchy (e.g., board, TMT, and mid-level managers). This then provides a deeper understanding of the selective leverage of the different underlying factors, such as the higher leverage of social and human capital at the board level compared with cognition. Personal characteristics such as overconfidence (Zhong et al., 2022), narcissism (Gerstner et al., 2013), and risk-taking propensity (Bromiley & Rau, 2016) are among various such constructs that have emerged as interesting through the influence of behavioral strategies on how managers make decisions that impact the financial and nonfinancial performance of an organization.

While Helfat and Martin's, in their 2015 review of DMCs, described the need to concurrently study more than one of the underpinnings of DMCs and establish their interplay on outcomes, the extant research on these topics is still not significant enough despite some scholarly pursuits. One of our thematic clusters, i.e., capability configurations (Cluster 4), reinforces the understanding that such configurations drive higher value for the firm. We also find evidence from cross-level studies (Table 5), which have significant implications for the composition of leadership and firm governance.

The current world for the manager is very different from that of 2003, when Adner and Helfat first conceptualized DMCs and listed cognition, human capital, and social capital as the three underlying factors, or that of 2015, when Helfat and Martin reviewed the literature on DMCs in the context of strategic change and summarized the variables used to study these three factors. Occurrences such as the COVID-19 pandemic, shifting geopolitics, the energy and cost of living crises across Europe, stakeholder pressures around sustainability goals, and the emergence of generative AI are surely reshaping competitive dynamics and firm strategies and thereby impacting how managers decide, operate, and evolve their capabilities. Thus, we felt it was opportune to assess whether DMCs in the present form were robust enough to reflect the above realities and help managers sense, seize, and transform resource processes and capabilities. Picking up on the potential opportunity to extend Bourdieu's conceptualization of capital to organizational settings and the importance of political capital as a resource for managers (Ocasio et al., 2020), our review has led us to recommend managerial political capital as the fourth underlying factor for DMCs. The proliferation of studies from China has accelerated the understanding of DMCs overall in a transitional economy and, more specifically, the importance of political capital. The CEO and UE literature in developed countries also points toward the participation of such senior

executives in political networking and policy formulation. The DMC literature is also increasingly focused on the nonfinancial performance of the firm through outcomes such as ESG performance, sustainability, and green investment, as they become embedded in CEO and TMT performance objectives and pay. However, more exploration is needed to decode the managerial impetus for such efforts across different firms and markets.

Studies that have reported the nonlinearity of DMCs concerning outcomes are limited but provide another exciting area for further understanding. Higher levels of TMT human capital increase failures in market entry (Ener, 2019), and a greater propensity to internationalize when board monitoring and control are minimal or in abundance (Purkayastha et al., 2021) clearly shows that contextuality is essential for gauging the optimal investment in the acquisition of such capabilities. Additionally, beyond the mobilization of such capabilities, their ability to stimulate the right outcomes is equally essential (Zald & McCarthy, 2002).

Our study also outlines significant practical implications of DMCs for managerial practice. DMCs are relevant and impact a wide range of firm outcomes, such as innovation (Saraf et al., 2022; Xia & Liu, 2022; Wang, 2023), new product entry (Srivastava, 2021), internationalization (Purkayastha et al., 2021; Zhong et al., 2022; Vuorio & Torkkeli, 2023) and CSR (O'Sullivan et al., 2021; Reguera-Alvarado & Bravo-Urquiza, 2022; Wang et al., 2023). However, there are also implications at the individual and team levels. DMCs become an important consideration in staffing decisions, such as appointing independent directors to establish a balance of power, accrue political and social capital, and enhance gender diversity, resulting in good governance outcomes. Similarly, DMCs enable decisions on CEO appointments, successions, and dismissals based on how their capabilities are considered important or disruptive to the firm. Opting for external or internal CEOs during succession is a significant consideration, as the capability repertoire between external and internal candidates varies. Directorate ties and nonprofit board memberships of CEOs have been seen as avenues to accrue competitive advantage for the firm and are valued in CEO compensation decisions. DMCs are an important factor in TMT composition. Cognitive and gender diversity influence outcomes such as innovation and risk propensity while dealing with uncertainties. Mid-level managers with higher levels of DMCs reflected through their education, diverse experiences, investments in upskilling and learning, and strong networks both within and outside the firm are better equipped to sense environmental changes, seize opportunities, and act with agility to reconfigure resources, processes, and strategies. Firms should structure their talent management practices to identify, empower, grow, and retain such managers. Leaders and managers with greater DMCs generate reputational outcomes for the firm by creating visible outcomes for the planet and society through their CSR and ESG commitments. Their efforts extend beyond the firm to include their ecosystem partners for reasons such as the reduction in the use of plastic or the carbon footprint across the entire supply chain. These firms are then better placed to connect with the Gen Z workforce and customers who accord higher importance to such causes, thus establishing competitive differentiation. A U-shaped relationship exists between DMCs and the desired outcomes in certain situations. Firms should be careful that adding DMCs beyond a certain threshold will not have an incremental positive effect on the desired outcome. These progressive developments, along with a broad set of future research opportunities such as multilevel and cross-level studies using a combination of the underpinnings of DMCs, the influence of CEO and TMT characteristics and traits, heuristics and biases, emerging markets and more complex stakeholder management, etc., present exciting possibilities.

Our study is also subject to several limitations. We might have missed some relevant contributions to the domain of DMCs, as we have relied on only a single database, the keywords used, and applied filters such as the choice of journals. While we aimed to focus on the highest quality of research using the proxy of journal impact ratings, different results may

have been obtained by using a broader set of journals. Certain limitations are inherent to the bibliometric method and apply to our study. While the citation count is core to the descriptive analysis of bibliometric reviews, the author's motive to cite – whether it is to promote or critique the publication – is not known upfront. It could also be a case of self-citation, with the author intending to mention his or her earlier works in the context of the present conversation. Our study reveals an increasing volume of publications adding to the DMC literature in recent years. While these newer publications indicate progress in the body of knowledge in the DMC domain, they have a lower citation count than those published earlier. Because of their longer existence, older papers are often cited more than newer ones. Overindexing such publications just because they have a higher citation count could impact the understanding of the trajectory of the knowledge structure. Another limitation of our study emanates from the reality that in bibliometric coupling, publications with a longer reference list gain an undue advantage. The greater the number of documents in the reference list, the greater the likelihood of connections with the references listed in the other publications. These documents thereby secure higher network centrality. In looking forward, we have considered future directions for research in publications for the 2021–2023 period. We may have missed certain strands of future research opportunities by not including publications from earlier years. Finally, the very nature of the extant literature drives our review more toward DMCs in the context of larger organizations. We synthesize the knowledge from an entrepreneurial landscape to a limited extent, and it thus provides a potential opportunity for similar reviews in the future.

## 8. Conclusion

In summary, our study contributes to the DMC literature by providing a synthesized view of its progress in scholarly thinking since the 2015 effort by Helfat and Martin. By identifying the seven subthemes of the extant knowledge and their evolution, we provide future scholars with clear directions for potential contributions and collaboration opportunities. Second, by recognizing the complexities beyond the firm that need managerial attention and capability, we contribute to increasing the relevance of DMC theory by including political capital as a fourth underlying factor. Finally, by constructing a forward-looking view of DMCs with linkages to a broader set of concepts and theories, we hope that we encourage future scholars to actively engage with this domain and enhance its relevance and value to strategic management.

## CRedit authorship contribution statement

**Somnath Baishya:** Writing – review & editing, Writing – original draft, Project administration, Investigation, Formal analysis, Data curation, Conceptualization. **Amit Karna:** Writing – original draft, Conceptualization. **Diptiranjana Mahapatra:** Writing – original draft, Resources, Conceptualization. **Satish Kumar:** Writing – review & editing, Supervision, Methodology. **Debmalya Mukherjee:** Writing – review & editing, Supervision, Methodology.

## References

- Acedo, F. J., & Jones, M. V. (2007). Speed of internationalization and entrepreneurial cognition: Insights and a comparison between international new ventures, exporters and domestic firms. *Journal of World Business, 42*(3), 236–252.
- Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal, 28*(12), 1235–1255.
- Adarkwah, G. K., Dorobantu, S., Sabel, C. A., & Zijlstra, F. (2024). Geopolitical volatility and subsidiary investments. *Strategic Management Journal, 1*–32.
- Adner, R., & Helfat, C. E. (2003). Corporate effects and dynamic managerial capabilities. *Strategic Management Journal, 24*(10), 1011–1025.
- Alayo, M., Iturralde, T., Maseda, A., & Aparicio, G. (2021). Mapping family firm internationalization research: Bibliometric and literature review. *Review of Managerial Science, 15*(6), 1517–1560.

- Allen, W. D., Schepker, D. J., & Chadwick, C. (2022). Firms' responses to changes in frictions in related human capital factor markets. *Strategic Management Journal*, 43(7), 1347–1373.
- Ambrosini, V., Bowman, C., & Collier, N. (2009). Dynamic capabilities: An exploration of how firms renew their resource base. *British Journal of Management*, 20, S9–S24.
- Andrevski, G., Miller, D., Le Breton-Miller, I., & Ferrier, W. (2022). Competitive rationales: Beneath the surface of competitive behavior. *Journal of Management*, 01492063211040555.
- Aupperle, K. E., Acar, W., & Mukherjee, D. (2014). Revisiting the fit–performance thesis half a century later: A historical financial analysis of Chandler's own matched and mismatched firms. *Business History*, 56(3), 341–371.
- Baier-Fuentes, H., Merigó, J. M., Amorós, J. E., & Gaviria-Marín, M. (2019). International entrepreneurship: A bibliometric overview. *International Entrepreneurship and Management Journal*, 15(2), 385–429.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.
- Barreto, I. (2012). Solving the entrepreneurial puzzle: The role of entrepreneurial interpretation in opportunity formation and related processes. *Journal of Management Studies*, 49(2), 356–380.
- Barroso-Castro, C., Villegas-Periñan, M. D. M., & Casillas-Bueno, J. C. (2016). How boards' internal and external social capital interact to affect firm performance. *Strategic Organization*, 14(1), 6–31.
- Baumard, P. (2014). Tearing down the facades of radical innovation. *Industrial Marketing Management*, 43(8), 1324–1334.
- Becker, G. S. (1994). Human capital revisited. In *Human capital: A theoretical and empirical analysis with special reference to education*, third edition (pp. 15–28). The University of Chicago Press.
- Bedendo, M., & Siming, L. (2021). To advocate or not to advocate: Determinants and financial consequences of CEO activism. *British Journal of Management*, 32(4), 1062–1081.
- Belliveau, M. A., O'Reilly, C. A., III, & Wade, J. B. (1996). Social capital at the top: Effects of social similarity and status on CEO compensation. *Academy of Management Journal*, 39(6), 1568–1593.
- Bingham, C. B., & Kahl, S. J. (2013). The process of schema emergence: Assimilation, deconstruction, unitization and the plurality of analogies. *Academy of Management Journal*, 56(1), 14–34.
- Bourdieu, P. (1986). "The Forms of Capital." In *The Handbook of Theory and Research for the Sociology of Education*. Ed. J.G. Richardson, New York: Greenwood Press, 241–258.
- Brodmann, J., Unsal, O., & Hassan, M. K. (2019). Political lobbying, insider trading, and CEO compensation. *International Review of Economics & Finance*, 59, 548–565.
- Bromiley, P., & Rau, D. (2016). Social, behavioral, and cognitive influences on upper echelons during strategy process: A literature review. *Journal of Management*, 42(1), 174–202.
- Buchholtz, A. K., Ribbens, B. A., & Houle, I. T. (2003). The role of human capital in postacquisition CEO departure. *Academy of Management Journal*, 46(4), 506–514.
- Budhwar, P. S. (2000). Indian and British personnel specialists' understanding of the dynamics of their function: An empirical study. *International Business Review*, 9(6), 727–753.
- Budhwar, P. S., & Sparrow, P. R. (2002). Strategic HRM through the cultural looking glass: Mapping the cognition of British and Indian managers. *Organization Studies*, 23(4), 599–638.
- Burt, R. S. (2009). The contingent value of social capital. In *Knowledge and social capital* (pp. 255–286). Routledge.
- Buyl, T., Boone, C., & Matthysens, P. (2011). Upper echelons research and managerial cognition. *Strategic Organization*, 9(3), 240–246.
- Cahen, F. R., Lahiri, S., & Borini, F. M. (2016). Managerial perceptions of barriers to internationalization: An examination of Brazil's new technology-based firms. *Journal of Business Research*, 69(6), 1973–1979.
- Caiazza, R., & Simoni, M. (2019). Directorate ties: A bibliometric analysis. *Management Decision*, 57(10), 2837–2851.
- Camarero, C., Garrido, M. J., Vicente, E., & Redondo, M. (2019). Relationship marketing in museums: Influence of managers and mode of governance. *Public Management Review*, 21(10), 1369–1396.
- Campbell, B. A., Coff, R., & Kryscynski, D. (2012). Rethinking sustained competitive advantage from human capital. *Academy of Management Review*, 37(3), 376–395.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749–778.
- Carpenter, M. A., & Golden, B. R. (1997). Perceived managerial discretion: A study of cause and effect. *Strategic Management Journal*, 18(3), 187–206.
- Casey, K. L. (2008). Defining political capital: A reconsideration of Bourdieu's interconvertibility theory. St Louis, USA: Lab for Integrated Learning and Technology: University of Missouri.
- Casprini, E., Dabic, M., Kotlar, J., & Pucci, T. (2020). A bibliometric analysis of family firm internationalization research: Current themes, theoretical roots, and ways forward. *International Business Review*, 29(5), Article 101715.
- Castanias, R. P., & Helfat, C. E. (2001). The managerial rents model: Theory and empirical analysis. *Journal of Management*, 27(6), 661–678.
- Chahine, S., & Zhang, Y. (2020). Change gears before speeding up: The roles of chief executive officer human capital and venture capitalist monitoring in chief executive officer change before initial public offering. *Strategic Management Journal*, 41(9), 1653–1681.
- Chatterji, A. K., & Toffel, M. W. (2019). Assessing the impact of CEO activism. *Organization & Environment*, 32(2), 159–185.
- Chen, H. L., Hsu, W. T., & Chang, C. Y. (2016). Independent directors' human and social capital, firm internationalization and performance implications: An integrated agency-resource dependence view. *International Business Review*, 25(4), 859–871.
- Chen, Y., & Yi, Y. (2023). TMT transactive memory system and business model design: The moderating effect of strategic orientation. *Journal of Knowledge Management*, 27(8), 2302–2328.
- Cohen, A., Hazan, M., Tallarita, R., & Weiss, D. (2019). The politics of CEOs. *Journal of Legal Analysis*, 11, 1–45.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95–S120.
- Contractor, F., Foss, N. J., Kundu, S., & Lahiri, S. (2019). Viewing global strategy through a microfoundations lens. *Global Strategy Journal*, 9(1), 3–18.
- Corsaro, D., Ramos, C., Henneberg, S. C., & Naudé, P. (2011). Actor network pictures and networking activities in business networks: An experimental study. *Industrial Marketing Management*, 40(6), 919–932.
- Crilly, D., & Sloan, P. (2012). Enterprise logic: Explaining corporate attention to stakeholders from the 'inside-out'. *Strategic Management Journal*, 33(10), 1174–1193.
- Cui, L., Li, Y., & Li, Z. (2013). Experiential drivers of foreign direct investment by late-comer Asian firms: The Chinese evidence. *Journal of Business Research*, 66(12), 2451–2459.
- Czakon, W., Klimas, P., Kawa, A., & Kraus, S. (2023). How myopic are managers? Development and validation of a multidimensional strategic myopia scale. *Journal of Business Research*, 157, Article 113573.
- Daniels, K., Johnson, G., & De Chernatony, L. (1994). Differences in managerial cognitions of competition 1. *British Journal of Management*, 5, S21–S29.
- Day, D. V., & Lord, R. G. (1992). Expertise and problem categorization: The role of expert processing in organizational sense-making. *Journal of Management Studies*, 29(1), 35–47.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
- Dubin, R. (1978). *Theory development*. New York: Free Press.
- Durand, T., Mounoud, E., & Ramanantsoa, B. (1996). Uncovering strategic assumptions: Understanding managers' ability to build representations. *European Management Journal*, 14(4), 389–398.
- Durand, R., & Paoletta, L. (2013). Category stretching: Reorienting research on categories in strategy, entrepreneurship, and organization theory. *Journal of Management Studies*, 50(6), 1100–1123.
- Duriau, V. J., Reger, R. K., & Pfarrer, M. D. (2007). A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements. *Organizational Research Methods*, 10(1), 5–34.
- Eggers, J. P., & Kaplan, S. (2013). Cognition and capabilities: A multilevel perspective. *The Academy of Management Annals*, 7, 295–340.
- Ener, H. (2019). Do prior experiences of top executives enable or hinder product market entry? *Journal of Management Studies*, 56(7), 1345–1376.
- Fainshmidt, S., Nair, A., & Mallon, M. R. (2017). MNE performance during a crisis: An evolutionary perspective on the role of dynamic managerial capabilities and industry context. *International Business Review*, 26(6), 1088–1099.
- Felin, T., Foss, N. J., & Ployhart, R. E. (2015). The microfoundations movement in strategy and organization theory. *Academy of Management Annals*, 9(1), 575–632.
- Felin, T., Foss, N. J., Heimeriks, K. H., & Madsen, T. L. (2012). Microfoundations of routines and capabilities: Individuals, processes, and structure. *Journal of Management Studies*, 49(8), 1351–1374.
- Felin, T., & Hesterly, W. S. (2007). The knowledge-based view, nested heterogeneity, and new value creation: Philosophical considerations on the locus of knowledge. *Academy of Management Review*, 32(1), 195–218.
- Fernández-Pérez, V., García-Morales, V. J., & Pullés, D. C. (2016). Entrepreneurial decision-making, external social networks and strategic flexibility: The role of CEOs' cognition. *European Management Journal*, 34(3), 296–309.
- Finkelstein, S., & Hambrick, D. C. (1989). Chief executive compensation: A study of the intersection of markets and political processes. *Strategic Management Journal*, 10(2), 121–134.
- Fiss, P. C. (2006). Social influence effects and managerial compensation evidence from Germany. *Strategic Management Journal*, 27(11), 1013–1031.
- Fonti, F., Maoret, M., & Whitbred, R. (2017). Free-riding in multi-party alliances: The role of perceived alliance effectiveness and peers' collaboration in a research consortium. *Strategic Management Journal*, 38(2), 363–383.
- Foss, N. J. (2020). Behavioral strategy and the COVID-19 disruption. *Journal of Management*, 46(8), 1322–1329.
- Foss, N. J., & Jensen, H. (2019). Managerial meta-knowledge and adaptation: Governance choice when firms don't know their capabilities. *Strategic Organization*, 17(2), 153–176.
- Fu, J. Y., & Sun, P. (2023). Closing the revolving door: What if board political connections are permanently broken? *Journal of Management*, 01492063231164977.
- Gaba, V., & Terlaak, A. (2013). Decomposing uncertainty and its effects on imitation in firm exit decisions. *Organization Science*, 24(6), 1847–1869.
- Gao, R., Martin, G., Hu, H. W., & Lu, J. W. (2022). Why embrace a double-edged sword? A behavioral theory of board political capital building. *Strategic Organization*, 14761270221134985.
- Garbuio, M., King, A. W., & Lovullo, D. (2011). Looking inside: Psychological influences on structuring a firm's portfolio of resources. *Journal of Management*, 37, 1444–1463.
- Gavetti, G. (2012). Toward a behavioral theory of strategy. *Organization Science*, 23, 267–285.
- Gavetti, G., Levinthal, D., & Ocasio, W. (2007). Perspective—Neo-Carnegie: The Carnegie school's past, present, and reconstructing for the future. *Organization Science*, 18(3), 523–536.



- Geletkanycz, M. A., Boyd, B. K., & Finkelstein, S. (2001). The strategic value of CEO external directorate networks: Implications for CEO compensation. *Strategic Management Journal*, 22(9), 889–898.
- Georgallis, P. (2017). The link between social movements and corporate social initiatives: Toward a multi-level theory. *Journal of Business Ethics*, 142(4), 735–751.
- George, N., Karna, A., & Sud, M. (2022). Entrepreneurship through the lens of dynamic managerial capabilities: A review of the literature. *Journal of Management & Organization*, 1–27.
- Gerstner, W. C., König, A., Enders, A., & Hambrick, D. C. (2013). CEO narcissism, audience engagement, and organizational adoption of technological discontinuities. *Administrative Science Quarterly*, 58(2), 257–291.
- Ginsberg, A., & Venkatraman, N. (1995). Institutional initiatives for technological change: From issue interpretation to strategic choice. *Organization Studies*, 16(3), 425–448.
- Godfrey, P. C., & Mahoney, J. T. (2014). The functions of the executive at 75: An invitation to reconsider a timeless classic. *Journal of Management Inquiry*, 23(4), 360–372.
- Greve, H. R. (1998). Managerial cognition and the mimetic adoption of market positions: What you see is what you do. *Strategic Management Journal*, 19(10), 967–988.
- Greven, A., Kruse, S., Vos, A., Stresse, S., & Brettel, M. (2022). Achieving product ambidexterity in new product development: The role of middle managers' dynamic managerial capabilities. *Journal of Management Studies*, 60, 1786–1818.
- Guan, J., Deng, F., & Zhou, D. (2023). The role of CEOs' human capital in sustaining superior performance—empirical evidence from China. *Journal of Intellectual Capital*, 24(3), 610–631.
- Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames. *Academy of Management Review*, 39(4), 463–487.
- Haleblian, J., & Rajagopalan, N. (2006). A cognitive model of CEO dismissal: Understanding the influence of board perceptions, attributions and efficacy beliefs. *Journal of Management Studies*, 43(5), 1009–1026.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
- Hardy, C., & Maguire, S. (2016). Organizing risk: Discourse, power, and “riskification”. *Academy of Management Review*, 41(1), 80–108.
- Harris, D., & Helfat, C. (1997). Specificity of CEO human capital and compensation. *Strategic Management Journal*, 18(11), 895–920.
- Harvey, J. F. (2022). Microfoundations of sensing capabilities: From managerial cognition to team behavior. *Strategic Organization*, 14761270221142959.
- Harvey, J. F., & Kudesia, R. S. (2023). Experimentation in the face of ambiguity: How mindful leaders develop emotional capabilities for change in teams. *Journal of Organizational Behavior*, 44(4), 573–589.
- Helfat, C. E., & Martin, J. A. (2015). Dynamic managerial capabilities: Review and assessment of managerial impact on strategic change. *Journal of Management*, 41(5), 1281–1312.
- Helfat, C. E., & Peteraf, M. A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36(6), 831–850.
- Heubeck, T., & Meckl, R. (2022). Antecedents to cognitive business model evaluation: A dynamic managerial capabilities perspective. *Review of Managerial Science*, 16(8), 2441–2466.
- Hitt, M. A., Arregle, J. L., & Holmes, R. M., Jr (2021). Strategic management theory in a post-pandemic and non-ergodic world. *Journal of Management Studies*, 58(1), 259.
- Hmieleski, K. M., Carr, J. C., & Baron, R. A. (2015). Integrating discovery and creation perspectives of entrepreneurial action: The relative roles of founding CEO human capital, social capital, and psychological capital in contexts of risk versus uncertainty. *Strategic Entrepreneurship Journal*, 9(4), 289–312.
- Hodgkinson, G. P., & Healey, M. P. (2011). Psychological foundations of dynamic capabilities: Reflexion and reflection in strategic management. *Strategic Management Journal*, 32, 1500–1516.
- Holzmayer, F., & Schmidt, S. L. (2020). Dynamic managerial capabilities, firm resources, and related business diversification—Evidence from the English Premier League. *Journal of Business Research*, 117, 132–143.
- Huang, H., Han, S. H., & Cho, K. (2021). Co-opted boards, social capital, and risk-taking. *Finance Research Letters*, 38, Article 101535.
- Huy, Q., & Zott, C. (2019). Exploring the affective underpinnings of dynamic managerial capabilities: How managers' emotion regulation behaviors mobilize resources for their firms. *Strategic Management Journal*, 40(1), 28–54.
- Jiang, F., Travaglione, T., Liu, L. X., & Li, J. (2021). When does the global mindset affect headquarters–subsidiary relationships? *Journal of Business Research*, 136, 523–542.
- Johnson, D. R., & Hoopes, D. G. (2003). Managerial cognition, sunk costs, and the evolution of industry structure. *Strategic Management Journal*, 24(10), 1057–1068.
- Julian, S. D., Ofori-Dankwa, J. C., & Justis, R. T. (2008). Understanding strategic responses to interest group pressures. *Strategic Management Journal*, 29(9), 963–984.
- Kabanoff, B., & Brown, S. (2008). Knowledge structures of prospectors, analyzers, and defenders: Content, structure, stability, and performance. *Strategic Management Journal*, 29(2), 149–171.
- Kanini, K. S., & Muathe, S. M. (2019). Nexus between social capital and firm performance: A critical literature review and research agenda. *International Journal of Business and Management*, 14(8), 70–82.
- Kaplan, S. (2011). Research in cognition and strategy: Reflections on two decades of progress and a look to the future. *Journal of Management Studies*, 48(3), 665–695.
- Kaplan, S. (2008). Cognition, capabilities, and incentives: Assessing firm response to the fiber-optic revolution. *Academy of Management Journal*, 51(4), 672–695.
- Karami, M., Baber, W. W., & Ojala, A. (2022). The effectual process of business model innovation for seizing opportunities in frontier markets. *Technovation*, 117, Article 102595.
- Karhu, P., & Ritala, P. (2020). The multiple faces of tension: Dualities in decision-making. *Review of Managerial Science*, 14(3), 485–518.
- Kessler, M. M. (1963). Bibliographic coupling between scientific papers. *American Documentation*, 14(1), 10–25.
- Khanna, P., Jones, C. D., & Boivie, S. (2014). Director human capital, information processing demands, and board effectiveness. *Journal of Management*, 40(2), 557–585.
- Kirova, V. (2023). The wind of change: A dynamic managerial capabilities perspective on the role of marketing managers as strategic change agents. *Journal of Business Research*, 160, Article 113817.
- Kiss, A. N., & Barr, P. S. (2015). New venture strategic adaptation: The interplay of belief structures and industry context. *Strategic Management Journal*, 36(8), 1245–1263.
- Kor, Y. Y., & Mesko, A. (2013). Dynamic managerial capabilities: Configuration and orchestration of top executives' capabilities and the firm's dominant logic. *Strategic Management Journal*, 34(2), 233–244.
- Krammer, S. M. (2022). Navigating the New Normal: Which firms have adapted better to the COVID-19 disruption? *Technovation*, 110, Article 102368.
- Kraus, S., Breier, M., Lim, W. M., Dabic, M., Kumar, S., Kanbach, D., ... Ferraris, A. (2022). Literature reviews as independent studies: Guidelines for academic practice. *Review of Managerial Science*, 16(8), 2577–2595.
- Krause, D., & Pullman, M. (2021). Fighting to survive: How supply chain managers navigate the emerging legal cannabis industry. *Journal of Supply Chain Management*, 57(3), 50–71.
- Larsen, P., & Von Ins, M. (2010). The rate of growth in scientific publication and the decline in coverage provided by Science Citation Index. *Scientometrics*, 84(3), 575–603.
- Lau, C. M. (2011). Team and organizational resources, strategic orientations, and firm performance in a transitional economy. *Journal of Business Research*, 64(12), 1344–1351.
- Lau, C. M., Yiu, D. W., Yeung, P. K., & Lu, Y. (2008). Strategic orientation of high-technology firms in a transitional economy. *Journal of Business Research*, 61(7), 765–777.
- Leiponen, A., & Helfat, C. E. (2010). Innovation objectives, knowledge sources, and the benefits of breadth. *Strategic Management Journal*, 31(2), 224–236.
- Leung, T. Y., & Sharma, P. (2021). Demystifying the dark side of board political capital. *Journal of Business Research*, 126, 307–318.
- Levy, O. (2005). The influence of top management team attention patterns on global strategic posture of firms. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 26(7), 797–819.
- Li, A., & Sullivan, B. N. (2022). Blind to the future: Exploring the contingent effect of managerial hubris on strategic foresight. *Strategic Organization*, 20(3), 565–599.
- Lin, W. T. (2014). Founder-key leaders, group-level decision teams, and the international expansion of business groups: Evidence from Taiwan. *International Marketing Review*, 31(2), 129–154.
- Li, M., & Patel, P. C. (2019). Jack of all, master of all? CEO generalist experience and firm performance. *The Leadership Quarterly*, 30(3), 320–334.
- Linnenluecke, M. K. (2017). Resilience in business and management research: A review of influential publications and a research agenda. *International Journal of Management Reviews*, 19(1), 4–30.
- Luoma, J., Laamanen, T., & Lamberg, J. A. (2022). Toward a routine-based view of interfirm rivalry. *Strategic Organization*, 20(2), 433–446.
- Maier, S. (2022). The Business Roundtable and the End of Managerialism. In *Corporate Capitalism and the Integral State: General Electric and a Century of American Power* (pp. 243–286). Cham: Springer International Publishing.
- Maitland, E., & Sammartino, A. (2015). Decision making and uncertainty: The role of heuristics and experience in assessing a politically hazardous environment. *Strategic Management Journal*, 36(10), 1554–1578.
- Malhotra, S., & Harrison, J. S. (2022). A blessing and a curse: How chief executive officer cognitive complexity influences firm performance under varying industry conditions. *Strategic Management Journal*, 43(13), 2809–2828.
- Marcel, J. J., Barr, P. S., & Duhaime, I. M. (2011). The influence of executive cognition on competitive dynamics. *Strategic Management Journal*, 32(2), 115–138.
- March, J. G., & Shapira, Z. (1992). Variable risk preferences and the focus of attention. *Psychological Review*, 99(1), 172.
- Mariotti, F., & Delbridge, R. (2012). Overcoming network overload and redundancy in interorganizational networks: The roles of potential and latent ties. *Organization Science*, 23(2), 511–528.
- Martin, J. A., & Bachrach, D. G. (2018). A relational perspective of the microfoundations of dynamic managerial capabilities and transactive memory systems. *Industrial Marketing Management*, 74, 27–38.
- McNamara, G. M., Luce, R. A., & Tompson, G. H. (2002). Examining the effect of complexity in strategic group knowledge structures on firm performance. *Strategic Management Journal*, 23(2), 153–170.
- Meng, L., Wen, K. H., Brewin, R., & Wu, Q. (2020). Knowledge atlas on the relationship between urban street space and residents' health—a bibliometric analysis based on VOSviewer and CiteSpace. *Sustainability*, 12(6), 2384.
- Miller, D., & Chen, M. J. (1996). The simplicity of competitive repertoires: An empirical analysis. *Strategic Management Journal*, 17(6), 419–439.
- Miller, D., & Xu, X. (2020). CEO long-term orientation and elite university education. *Strategic Organization*, 18(4), 520–546.
- Mintzberg, H. (1978). Patterns in strategy formation. *Management Science*, 24(9), 934–948.

- Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002). Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice*, 27(2), 93–104.
- Morse, A., Nanda, V., & Seru, A. (2011). Are incentive contracts rigged by powerful CEOs? *The Journal of Finance*, 66(5), 1779–1821.
- Mount, M. P., Baer, M., & Lupoli, M. J. (2021). Quantum leaps or baby steps? Expertise distance, construal level, and the propensity to invest in novel technological ideas. *Strategic Management Journal*, 42(8), 1490–1515.
- Mouzas, S., Henneberg, S., & Naudé, P. (2008). Developing network insight. *Industrial Marketing Management*, 37(2), 167–180.
- Mukherjee, D., Lim, W. M., Kumar, S., & Donthu, N. (2022). Guidelines for advancing theory and practice through bibliometric research. *Journal of Business Research*, 148, 101–115.
- Mukherjee, D., Sahoo, S., & Kumar, S. (2023). Two decades of international business and international management scholarship on Africa: A review and future directions. *Management International Review*, 63(6), 863–909.
- Murcia, M. J., & Acosta, P. (2023). Accounting for Plural Cognitive Framings of Growth and Sustainability: Rethinking Management Education in Latin America. *Journal of Business Ethics*, 185(2), 299–313.
- Murtinu, S. (2021). The government whispering to entrepreneurs: Public venture capital, policy shifts, and firm productivity. *Strategic Entrepreneurship Journal*, 15(2), 279–308.
- Nadkarni, S., & Barr, P. S. (2008). Environmental context, managerial cognition, and strategic action: An integrated view. *Strategic Management Journal*, 29(13), 1395–1427.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266.
- Nayak, B., Bhattacharyya, S. S., & Krishnamoorthy, B. (2022). Exploring the black box of competitive advantage—An integrated bibliometric and chronological literature review approach. *Journal of Business Research*, 139, 964–982.
- Nee, V., & Opper, S. (2010). Political capital in a market economy. *Social Forces*, 88(5), 2105–2132.
- Nicholls-Nixon, C. L., Cooper, A. C., & Woo, C. Y. (2000). Strategic experimentation: Understanding change and performance in new ventures. *Journal of Business Venturing*, 15(5–6), 493–521.
- Nickerson, J. A., Wuebker, R., & Zenger, T. (2017). Problems, theories, and governing the crowd. *Strategic Organization*, 15(2), 275–288.
- Obukhova, E., & Lan, G. (2013). Do job seekers benefit from contacts? A direct test with contemporaneous searches. *Management Science*, 59(10), 2204–2216.
- Öberg, C., Henneberg, S. C., & Mouzas, S. (2007). Changing network pictures: Evidence from mergers and acquisitions. *Industrial Marketing Management*, 36(7), 926–940.
- Öberg, C., Henneberg, S. C., & Mouzas, S. (2012). Organizational inscriptions of network pictures: A meso-level analysis. *Industrial Marketing Management*, 41(8), 1270–1283.
- Ocasio, W., Pozner, J. E., & Milner, D. (2020). Varieties of political capital and power in organizations: A review and integrative framework. *Academy of Management Annals*, 14(1), 303–338.
- O'Sullivan, D., Zolotoy, L., & Fan, Q. (2021). CEO early-life disaster experience and corporate social performance. *Strategic Management Journal*, 42(11), 2137–2161.
- Pache, A. C., & Santos, F. (2010). When worlds collide: The internal dynamics of organizational responses to conflicting institutional demands. *Academy of Management Review*, 35(3), 455–476.
- Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43(3), 486–501.
- Peng, M. W., Tan, J., & Tong, T. W. (2004). Ownership types and strategic groups in an emerging economy. *Journal of Management Studies*, 41(7), 1105–1129.
- Penrose, E. T. (1959). *The theory of growth of the firm*. New York, NY: Wiley.
- Pereira, V., & Bamel, U. (2021). Extending the resource and knowledge-based view: A critical analysis into its theoretical evolution and future research directions. *Journal of Business Research*, 132, 557–570.
- Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford, CA: Stanford University Press.
- Plambeck, N. (2012). The development of new products: The role of firm context and managerial cognition. *Journal of Business Venturing*, 27(6), 607–621.
- Ployhart, R. E., & Moliterno, T. P. (2011). Emergence of the human capital resource: A multi-level model. *Academy of Management Review*, 36, 127–150.
- Popli, M., Ahsan, F. M., & Mukherjee, D. (2022). Upper echelons and firm internationalization: A critical review and future directions. *Journal of Business Research*, 152, 505–521.
- Post, C., Lokshin, B., & Boone, C. (2022). What changes after women enter top management teams? A gender-based model of strategic renewal. *Academy of Management Journal*, 65(1), 273–303.
- Powell, T. C. (2014). Strategic management and the person. *Strategic Organization*, 12(3), 200–207.
- Powell, T. C., Lovallo, D., & Fox, C. R. (2011). Behavioral strategy. *Strategic Management Journal*, 32(13), 1369–1386.
- Priem, R. L. (1992). An application of metric conjoint analysis for the evaluation of top managers' individual strategic decision making processes: A research note. *Strategic Management Journal*, 13(S1), 143–151.
- Purkayastha, A., Karna, A., Sharma, S., & Bhadra, D. (2021). Board's human capital resource and internationalization of emerging market firms: Toward an integrated agency–resource dependence perspective. *Journal of Business Research*, 135, 391–407.
- Ramos-Rodríguez, A. R., & Ruíz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the Strategic Management Journal, 1980–2000. *Strategic Management Journal*, 25(10), 981–1004.
- Razmdoost, K., Alinaghian, L., & Linder, C. (2020). New venture formation: A capability configurational approach. *Journal of Business Research*, 113, 290–302.
- Reger, R. K., & Huff, A. S. (1993). Strategic groups: A cognitive perspective. *Strategic Management Journal*, 14(2), 103–123.
- Reguera-Alvarado, N., & Bravo-Urquiza, F. (2022). The influence of board social capital on corporate social responsibility reporting. *Journal of Intellectual Capital*, 23(4), 913–935.
- Roelandt, J., Andries, P., & Knockaert, M. (2022). The contribution of board experience to opportunity development in high-tech ventures. *Small Business Economics*, 58(3), 1627–1645.
- Rogers, M. F. (1974). Instrumental and infra-resources: The bases of power. *American Journal of Sociology*, 79(6), 1418–1433.
- Saggese, S., Sarto, F., & Cuccurullo, C. (2016). Evolution of the debate on control enhancing mechanisms: A systematic review and bibliometric analysis. *International Journal of Management Reviews*, 18(4), 417–439.
- Samiee, S., & Chabowski, B. R. (2012). Knowledge structure in international marketing: A multi-method bibliometric analysis. *Journal of the Academy of Marketing Science*, 40, 364–386.
- Sandberg, J., & Alvesson, M. (2011). Ways of constructing research questions: Gap-spotting or problematization? *Organization*, 18(1), 23–44.
- Saraf, N., Dasgupta, S., & Blettner, D. P. (2022). How do managerial perceptions of performance feedback affect innovation? *Strategic Organization*, 20(3), 451–480.
- Sarkar, S., Osiyevskyy, O., & Clegg, S. R. (2018). Incumbent capability enhancement in response to radical innovations. *European Management Journal*, 36(3), 353–365.
- Sarto, F., Veronesi, G., & Kirkpatrick, I. (2019). Organizing professionals and their impact on performance: The case of public health doctors in the Italian SSN. *Public Management Review*, 21(7), 1029–1051.
- Sauerwald, S., Lin, Z., & Peng, M. W. (2016). Board social capital and excess CEO returns. *Strategic Management Journal*, 37(3), 498–520.
- Schaltenbrand, B., Foerstl, K., Azadegan, A., & Lindeman, K. (2018). See what we want to see? The effects of managerial experience on corporate green investments. *Journal of Business Ethics*, 150(4), 1129–1150.
- Schugurnesky, D. (2000). *Citizenship learning and democratic engagement: Political Capital revisited*.
- Skippari, M., Laukkanen, M., & Salo, J. (2017). Cognitive barriers to collaborative innovation generation in supply chain relationships. *Industrial Marketing Management*, 62, 108–117.
- Smith, G. E. (2020). Disruptive framing in value creation and price setting: Transforming value with strategic frames of reference. *Business Horizons*, 63(4), 481–491.
- Snihur, Y., & Eisenhardt, K. M. (2022). Looking forward, looking back: Strategic organization and the business model concept. *Strategic Organization*, 20(4), 757–770.
- Spencer, B., Peyrefitte, J., & Churchman, R. (2003). Consensus and divergence in perceptions of cognitive strategic groups: Evidence from the health care industry. *Strategic Organization*, 1(2), 203–230.
- Srivastava, S., Sahaym, A., & Allison, T. H. (2021). Alert and Awake: Role of alertness and attention on rate of new product introductions. *Journal of Business Venturing*, 36(4), Article 106023.
- Stubbart, C. I. (1989). Managerial cognition: A missing link in strategic management research. *Journal of Management Studies*, 26(4), 325–347.
- Sun, P., Hu, H. W., & Hillman, A. J. (2016). The dark side of board political capital: Enabling blockholder rent appropriation. *Academy of Management Journal*, 59(5), 1801–1822.
- Supriharyanti, E., & Sukoco, B. M. (2023). Organizational change capability: A systematic review and future research directions. *Management Research Review*, 46(1), 46–81.
- Sweetland, S. R. (1996). Human capital theory: Foundations of a field of inquiry. *Review of Educational Research*, 66(3), 341–359.
- Symeonidou, N., & Nicolaou, N. (2018). Resource orchestration in start-ups: Synchronizing human capital investment, leveraging strategy, and founder start-up experience. *Strategic Entrepreneurship Journal*, 12(2), 194–218.
- Tasheva, S., & Nielsen, B. B. (2022). The role of global dynamic managerial capability in the pursuit of international strategy and superior performance. *Journal of International Business Studies*, 53(4), 689–708.
- Tawse, A., & Tabesh, P. (2021). Strategy implementation: A review and an introductory framework. *European Management Journal*, 39(1), 22–33.
- Teece, D. J. (2012). Dynamic capabilities: Routines versus entrepreneurial action. *Journal of Management Studies*, 49(8), 1395–1401.
- Tripsas, M., & Gavetti, G. (2000). Capabilities, cognition, and inertia: Evidence from digital imaging. *Strategic Management Journal*, 21(10–11), 1147–1161.
- Ursel, N., Durante, A., & Elsaid, E. (2023). Ethnic minority CEO turnover: Resource-based and leadership categorization perspectives. *Journal of Organizational Behavior*, 44(4), 682–699.
- Van Eck, N., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538.
- Vogel, R., & Güttel, W. H. (2013). The dynamic capability view in strategic management: A bibliometric review. *International Journal of Management Reviews*, 15(4), 426–446.
- Vuori, T. O., & Huy, Q. N. (2016). Distributed attention and shared emotions in the innovation process: How Nokia lost the smartphone battle. *Administrative Science Quarterly*, 61(1), 9–51.
- Vuorio, A., & Torkkeli, L. (2023). Dynamic managerial capability portfolios in early internationalising firms. *International Business Review*, 32(1), Article 102049.
- Walrave, B., & Gilsing, V. A. (2023). Game of skill or game of luck? Distant search in response to performance feedback. *Technovation*, 121, Article 102681.
- Wang, G., DeGhetto, K., Ellen, B. P., & Lamont, B. T. (2019). Board antecedents of CEO duality and the moderating role of country-level managerial discretion: A meta-analytic investigation. *Journal of Management Studies*, 56(1), 172–202.

- Wang, L., Lin, Y., Jiang, W., Yang, H., & Zhao, H. (2023). Does CEO emotion matter? CEO affectivity and corporate social responsibility. *Strategic Management Journal*, 44(7), 1820–1835.
- Wang, P. (2023). Corporate social responsibility and corporate innovation—The moderating role of CEO social capital. *Finance Research Letters*, 103863.
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), 490–495.
- Wright, R. P., Paroutis, S. E., & Blettner, D. P. (2013). How useful are the strategic tools we teach in business schools? *Journal of Management Studies*, 50(1), 92–125.
- Wurthmann, K. A. (2014). Service on a stigmatized board, social capital, and change in number of directorships. *Journal of Management Studies*, 51(5), 814–841.
- Xia, T., & Liu, X. (2022). The innovation paradox of TMT political capital in transition economy firms. *Journal of Business Research*, 142, 775–790.
- Yang, D., Wang, A. X., Zhou, K. Z., & Jiang, W. (2019). Environmental strategy, institutional force, and innovation capability: A managerial cognition perspective. *Journal of Business Ethics*, 159(4), 1147–1161.
- Young, C. S. (2005). Top management teams' social capital in Taiwan: The impact on firm value in an emerging economy. *Journal of Intellectual Capital*, 6(2), 177–190.
- Young, C. S., & Tsai, L. C. (2008). The sensitivity of compensation to social capital: Family CEOs vs. nonfamily CEOs in the family business groups. *Journal of Business Research*, 61(4), 363–374.
- Zakrzewska-Bielawska, A., Czakon, W., & Gantert, T. M. (2022). Old guards or new friends? Relational awareness and motivation in opportunities seizing. *European Management Journal*.
- Zald, M. N., & McCarthy, J. D. (2002). The resource mobilization research program: Progress, challenge, and transformation. *New directions in contemporary sociological theory*, 147–171.
- Zhang, L., Peng, F., Shan, Y. G., & Chen, Y. (2023). CEO social capital and litigation risk. *Finance Research Letters*, 51, Article 103405.
- Zhong, W., Ma, Z., Tong, T. W., Zhang, Y., & Xie, L. (2021). Customer concentration, executive attention, and firm search behavior. *Academy of Management Journal*, 64(5), 1625–1647.
- Zhong, X., Song, T., & Chen, W. (2022). Persistent innovation underperformance and firms' R&D internationalization: The moderating effects of multidimensional TMT human capital. *Industrial Marketing Management*, 102, 576–587.
- Jenkins, M., & Johnson, G. (1997). Linking managerial cognition and organizational performance: A preliminary investigation using causal maps. *British Journal of Management*, 8, 77–90.
- Jung, J., & Shin, T. (2019). Learning not to diversify: The transformation of graduate business education and the decline of diversifying acquisitions. *Administrative Science Quarterly*, 64(2), 337–369.
- Kumbure, M. M., Tarkiainen, A., Luukka, P., Stoklasa, J., & Jantunen, A. (2020). Relation between managerial cognition and industrial performance: An assessment with strategic cognitive maps using fuzzy-set qualitative comparative analysis. *Journal of Business Research*, 114, 160–172.
- Kunc, M. H., & Morecroft, J. D. (2010). Managerial decision making and firm performance under a resource-based paradigm. *Strategic Management Journal*, 31(11), 1164–1182.
- Laamanen, T., & Wallin, J. (2009). Cognitive dynamics of capability development paths. *Journal of Management Studies*, 46(6), 950–981.
- Levine, S. S., Bernard, M., & Nagel, R. (2017). Strategic intelligence: The cognitive capability to anticipate competitor behavior. *Strategic Management Journal*, 38(12), 2390–2423.
- Malhotra, S., Morgan, H. M., & Zhu, P. (2018). Sticky decisions: Anchoring and equity stakes in international acquisitions. *Journal of Management*, 44(8), 3200–3230.
- Mishina, Y., Pollock, T. G., & Porac, J. F. (2004). Are more resources always better for growth? Resource stickiness in market and product expansion. *Strategic Management Journal*, 25(12), 1179–1197.
- Nadkarni, S., Herrmann, P., & Perez, P. D. (2011). Domestic mindsets and early international performance: The moderating effect of global industry conditions. *Strategic Management Journal*, 32(5), 510–531.
- Niittymies, A., & Pajunen, K. (2020). Cognitive foundations of firm internationalization: A systematic review and agenda for future research. *International Business Review*, 29(4), 101654.
- Nikolaeva, R. (2014). Interorganizational imitation heuristics arising from cognitive frames. *Journal of Business Research*, 67(8), 1758–1765.
- Ott, T. E., & Eisenhardt, K. M. (2020). Decision weaving: Forming novel, complex strategy in entrepreneurial settings. *Strategic Management Journal*, 41(12), 2275–2314.
- Peteraf, M., & Reed, R. (2007). Managerial discretion and internal alignment under regulatory constraints and change. *Strategic Management Journal*, 28(11), 1089–1112.
- Plambeck, N., & Weber, K. (2010). When the glass is half full and half empty: CEOs' ambivalent interpretations of strategic issues. *Strategic Management Journal*, 31(7), 689–710.
- Rahmandad, H., Denrell, J., & Prelec, D. (2021). What makes dynamic strategic problems difficult? Evidence from an experimental study. *Strategic Management Journal*, 42(5), 865–897.
- Reimann, F., Kosmol, T., & Kaufmann, L. (2017). Responses to supplier-induced disruptions: A fuzzy-set analysis. *Journal of Supply Chain Management*, 53(4), 37–66.
- Rickley, M. (2019). Cultural generalists and cultural specialists: Examining international experience portfolios of subsidiary executives in multinational firms. *Journal of Management*, 45(2), 384–416.
- Samba, C., Van Knippenberg, D., & Miller, C. C. (2018). The impact of strategic dissent on organizational outcomes: A meta-analytic integration. *Strategic Management Journal*, 39(2), 379–402.
- Schraven, D. F., Hartmann, A., & Dewulf, G. P. (2015). Resuming an unfinished tale: Applying causal maps to analyze the dominant logics within an organization. *Organizational Research Methods*, 18(2), 326–349.
- Sirmon, D. G., & Hitt, M. A. (2009). Contingencies within dynamic managerial capabilities: Interdependent effects of resource investment and deployment on firm performance. *Strategic Management Journal*, 30(13), 1375–1394.
- Surroca, J., Prior, D., & Gine, J. A. T. (2016). Using Panel Data DEA to Measure CEOs' Focus of Attention: An Application to The Study of Focus of Attention: An Application to the Study of Cognitive Group Membership and Performance. *Strategic Management Journal*, 37, 370–388.
- Switzer, L. N., & Huang, Y. (2007). How does human capital affect the performance of small and mid-cap mutual funds? *Journal of Intellectual Capital*, 8(4), 666–681.
- Townsend, D. M., & Busenitz, L. W. (2015). Turning water into wine? Exploring the role of dynamic capabilities in early-stage capitalization processes. *Journal of Business Venturing*, 30(2), 292–306.
- Trahms, C. A., Ndofo, H. A., & Sirmon, D. G. (2013). Organizational decline and turnaround: A review and agenda for future research. *Journal of Management*, 39(5), 1277–1307.
- Tyler, B. B., & Gnyawali, D. R. (2009). Managerial collective cognitions: An examination of similarities and differences of cultural orientations. *Journal of Management Studies*, 46(1), 93–126.
- Tyler, B. B., & Gnyawali, D. R. (2009). Managerial collective cognitions: An examination of similarities and differences of cultural orientations. *Journal of Management Studies*, 46(1), 93–126.
- Walls, J. L., Salaiz, A., & Chiu, S. C. (2021). Wanted: Heroic leaders to drive the transition to "business beyond usual. *Strategic Organization*, 19(3), 494–512.
- Wu, J., & Olk, P. (2014). Technological advantage, alliances with customers, local knowledge and competitor identification. *Journal of Business Research*, 67(10), 2106–2114.
- Ginsberg, A. (1994). Minding the competition: From mapping to mastery. *Strategic Management Journal*, 15(S1), 153–174.

**Somnath Baishya** is a PhD Scholar in Policy & Strategic Management with Indian Institute of Management Sambalpur, India. He has co-authored a book 'Thriving On Talent' and also published with IVEY Publishing, NHRD Network Journal and various online media. As

a career practitioner with over 25 years experience with Indian and Global multinationals like Tata Motors, Infosys, Nokia, Adobe, Intuit and Tesco, he has led various enterprise level transformational charters including memberships on Boards, CSR committees and CXO forums. He has also extensively engaged with academia and start-up ecosystems across multiple geographies.

**Amit Karna** is a Professor of Strategic Management at the Indian Institute of Management Ahmedabad (IIMA). His research interests are in the fields of dynamic capabilities, diversification, strategic leadership and international strategy. His research has been published in Strategic Management Journal, Journal of Management Studies, MIT-Sloan Management Review, Journal of Business Research, Global Strategy Journal, R&D Management and other international journals. He was part of faculty at EBS Business School in Germany between 2009 and 2014. He has been a visiting scholar at University of California at Berkeley's Haas School of Business in 2011, and at University of Sydney Business School in 2015 and 2023. He has been a visiting faculty at IESEG School of Management in France between 2012 and 2014. He completed his PhD in Strategic Management from IIMA.

**Diptiranjana Mahapatra** is an Associate Professor of Policy and Strategic Management at Indian Institute of Management Sambalpur, India. His research interest is at the intersection of Business and Public Policy, and concerns Non-Market Strategy, State-owned Enterprise, Energy Geopolitics, and Platform Business. He has published in leading

journals, such as Journal of Business Research, Journal of Consumer Behaviour, Energy Policy, Journal of Public Affairs, International Journal of Production Research.

**Satish Kumar** is Professor of Finance at Indian Institute of Management Nagpur, India. His research is focused on behavioural finance, corporate finance, small business financing, bibliometric analysis, and systematic literature review. He has published extensively in top-tier journals (including FT 50), such as Contemporary Accounting Research, Review of Accounting Studies, Journal of Corporate Finance, British Journal of Management, International Review of Financial Analysis, International Journal of Information Management, Journal of Business Research, Journal of Service Research, International Journal of Research in Marketing, Global Finance Journal, Financial Review, European Journal of Finance, European Financial Management, Technological Forecasting and Social Change, Small Business Economics, and Journal of Small Business Management, among others.

**Dr. Debmalya Mukherjee** is the Associate Dean and Professor of Management at The University of Akron, U.S.A. His research interests concern global innovation, reputation, firm internationalization, and emerging market strategies. Dr. Mukherjee's works have appeared in Journal of Management Studies, Global Strategy Journal, Journal of Business Research, Asia Pacific Journal of Management, Journal of World Business, Journal of International Management, Industrial Marketing Management, Business History, European Management Journal, Management International Review, Multinational Business Review, and R&D Management, among many others.