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**Dynamic capabilities, the new Multinational Enterprise and business model innovation: A de/re-constructive commentary**

Running title. Dynamic Capabilities, the MNE and BMI

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# Dynamic capabilities, the new MNE and business model innovation: A de/re-constructive commentary

**ABSTRACT**

We critically assess the state of play with the dynamic capability view (DCV) and explore its nature and scope, its relationship with extant theories, its application and applicability to the theory of the multinational enterprise (MNE), and its relationship with business model innovation (BMI). We claim that the DCV should be considered a meta-theory-*plus* that is both applicable to and extends all extant theories. We submit that, while it has contributed to the theory of the MNE and BMI, there remains scope to add more value and that its progress has been hindered because of several limitations. These are both conceptual and in terms of operationalization and empirical testing. We find disconcerting the plurality of concepts, the lack of a comprehensive conceptual framework and of theory-congruent proxies for the key variables. We are also concerned with the lack of econometric evidence that accounts for causal inferencing. These limitations need to be addressed for the DCV to realize its full potential, and we propose ways to go about it.

## INTRODUCTION

The dynamic capability view (DCV) of the firm is a success story in (strategic) management theory and arguably the first major new perspective to be almost entirely homegrown. Many other major theories have a clear economics-based genealogy. This is the case for the Bain (1956)/Modigliani (1958)-originated structure–conduct–performance (SCP)-based rivalry reduction(RR) approach, which was introduced into international business (IB) by Hymer (1960, 1976) and into strategic management by Porter (1980), the Coase (1937)/Williamson (1975)-inspired transaction cost economics (TCE), and the Penrose (1959)/Demsetz (1988)-inspired resource-based view (RBV). While management scholars have helped develop extant theories significantly, many key ideas have been borrowed mostly from economics. The behavioral theory (BT) of the firm of Cyert and March (1963), with its solid focus on organization cum economics theory, is arguably the nearer earlier candidate of a homegrown management theory and has informed aspects of the three other theories (Pitelis, 2007).

Drawing on works by Simon (1951, 1991) and Arrow (1974) on organizations and organizational failures, the evolutionary theory of Nelson and Winter (1982), the contribution to business history by Alfred Chandler (1962, 1992), and real-life business consulting experience the founder of the DCV, David Teece, being a businessman and founder of three major businesses, as well as a leading scholar; see Kay & Pitelis, 2016), the DCV offers to strategy scholarship its own signature theory of the firm and strategy, including its focus on sustainable competitive advantage (SCA).

The above can help explicate the success of the DCV. Over the past 25 years or so, we have witnessed approximately 45,000 citations to a paper that has helped spearhead the DCV (Teece, Pisano, & Shuen, 1997), an expansion of the DCV to almost all areas of management, and thousands of conceptual and empirical papers on this topic. These include papers in IB research in which the DCV is a late entry/influence (Narula & Verbeke, 2015; Zahra, Petricevic, & Luo, 2021). For instance, we have traced approximately 250 articles with a DCV focus in IB (Pitelis, Teece, & Yang, 2021). Similar considerations apply to the case of empirical work. Originally considered to be the DCV's

Achilles heel (Wang & Ahmed, 2007), papers with an empirical DCV focus have grown by leaps and bounds, with at least 220 published studies by 2018 (Baía & Ferreira, 2019; Laaksonen & Peltoniemi, 2018). Baía and Ferreira (2019) identified 92 papers on the dynamic capability (DC)–performance relationship alone. This is despite arguments by DCV proponents that such a relationship is neither positive nor central to the DC agenda (Ambrosini & Bowman, 2009; Helfat et al., 2007; Schilke, Hu, & Helfat, 2018).

Nevertheless, challenges remain. For instance, a precise definition of DCs and their scope, their relationship with other constructs and perspectives, and the empirical proxies used to test their implications, particularly regarding their congruence with the theory's own core conceptual foundations, remain unclear. Business activities and functions that are sometimes liberally defined as DCs proliferate (Laaksonen & Peltoniemi, 2018). Some commonly used proxies for DCs in empirical studies were applied in the past and are still being used to date to test alternative theories. A case in point is research and development (R&D). Traditionally a proxy for innovation, entrepreneurship, and later for absorptive capacity (Acs et al., 1994, Cohen & Levinthal, 1990; Van Den Bosch, Van Wijk, & Volberda, 2003), R&D is also used as a proxy for DCs (Laaksonen & Peltoniemi, 2018). This makes it difficult to interpret the results, distinguish them from those derived from other perspectives and provide clear predictions that differ from those of other theories.

The aims of this short paper are to reflect on and clarify these issues, draw on them to focus on the theory of the MNE and in its relation to business model innovation (BMI), and propose ways forward.

## THE NATURE AND SCOPE OF THE DCV

Teece, Pisano, and Shuen (1997: 516) originally defined DC as a "firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments." Subsequently, multiple definitions have been proposed (see Ambrosini & Bowman, 2009; Barreto, 2010; Schilke et al., 2018; Wilden, Devinney, & Dowling, 2016). Its key proponents seem to agree that DC is the capacity of an organization to *purposefully* create, extend, or modify its resource base in a reliable manner (Helfat et al., 2007; Pitelis & Wagner, 2019).

In contrast to ordinary capabilities that are said to enable firms to create and capture value through extant good/best practices, technology, and organization, DCs allow firms to achieve their desired changes through foresight, agility, and forward-looking strategies and actions, which are realized by sensing and shaping opportunities and threats, seizing these opportunities, and managing, reconfiguring, and transforming the firm's resource base (Katkalo, Pitelis, & Teece, 2010; Teece, 2007). In DCV jargon, ordinary capabilities are about doing things right, whereas DCs are about doing "the right things at the right time" (Teece, 2014: 23). Pitelis and Wang (2019) argued that a more complete definition of DCs would be *doing right the right thing at the right time.* This is for the obvious reason that doing the right thing but not right (e.g., an autonomous vehicle prone to fatal mistakes/accidents) is unlikely to entice users. This observation also points out the interaction between ordinary capabilities and DCs, which we revisit below.

The reference to *purposefully* in the above definition illustrates the existence of an objective. The objectives of firms can vary according to the type of firm considered but for profit-seeking firms, the widely agreed-upon objective is to make profit sustainably or, according to strategic management, to achieve SCA. The original definition by Teece, Pisano, and Shuen (1997) referred to both the internal and external environments or to what Edith Penrose (1959) aptly named the firm's productive opportunity.  Penrose (1959, 1960) defined the latter concept as the dynamic interaction between a firm's internal and external environments as perceived by managers. Penrose (1959) used the concept of image, which she borrowed from Boulding (1956), to describe the imprint of the said interaction in managers' minds. Given the close lineage of the DCV with the Penrosean tradition (Augier & Teece, 2009), we define DCs more succinctly as *organizational attributes that help undergird the continuing relevance  and upgrade the organization's productive opportunity.* As productive opportunity is an image in managers' minds, the need for relevance means that the image should not be blurry and/or detached from reality. Upgrading refers to a better image of a shifting reality. Reference to attributes, as opposed to competencies or capacities, avoids the risk of defining DCs using synonyms (e.g., *capacity* and *competence*).

Doing things right and doing the right things can entail trade-offs. As in the case of exploration versus exploitation discussed by March (1991), too much focus on doing things right can lead to not doing the right things at the right time. Cases of organizational failures resulting from doing the right things at the right time are staples of management scholarship. An example is Wang Laboratories. A leader in electronic typewriters, Wang Laboratories failed to grasp the danger of the PC as an alternative to the electronic typewriter. It continued doing what was good at right and downplayed the need to move at the right time into what already appeared to be viewed by many as the right thing. This gradually led to its failure (Michelson & Wootton, 1995). Other companies have made the shift, sometimes by entirely abandoning the activities they were known for. Former tire producer and now aircraft parts engineering company Goodrich is a case in point. Goodrich diversified from the production of tires to light jets, abandoning altogether its original activities because its top management team (TMT) decided that it was the right thing to do at the right time, given external competition in the respective sectors and the company's internal resources and capabilities (Pisano, 2015).

Organizational DCs can reside in humans and/or non-human structures, systems, processes, organizational routines, and cultures. Eisenhardt and Martin (2000) considered DCs to be organizational processes and best practices, notably the processes to integrate, reconfigure, acquire, and release resources and to adapt to shifting market conditions. The authors argued that DCs could be proxied through actions and activities such as product development and strategic decisions that help engender new resource configurations. While we agree that product development in the context of diversification into a new activity can be a manifestation of DCs, in other cases, it is more appropriate to see product development as a proxy for ordinary capabilities. This, for example, would be the case when a new product is a variant of an extant one (e.g., a new model of a conventional car). In this definition, the diversification of Google into autonomous vehicles would be said to be the manifestation of DCs. However, the introduction of the new variant of the golf car by car producer Volkswagen would be viewed as a manifestation of ordinary capabilities, albeit very strong and even changing ones (see Pitelis & Wang, 2019).

It is worth noting that the identification and selection of the right time are often predicated upon the availability of ordinary capabilities that will allow the firm to do right the right things. In this sense, doing the right things at the right time cannot be readily separated from doing things right. This points to a rather blurry distinction between ordinary capabilities and DCs. As in many other cases, however, such as market and hierarchy, in which elements of both can coexist in each category (Pitelis, 1991), the distinction between ordinary capabilities and DCs can remain useful for analytical purposes. Another confusion arises from the fact that the opposite of *dynamic* in the literature is usually taken to be the word *static*. Using the static versus dynamic distinction of capabilities, instead, could afford scholars the possibility of viewing some static capabilities as extraordinary and allowing for ordinary capabilities to change over time (Pitelis & Wang, 2019).

Human DCs reside in individuals, such as managers, and in collectives, such as teams of people, the workforce, the board, the TMT, and the community. Thus far, the main focus in the literature has been on individuals and processes, notably signature processes (Teece, 2014). These are important but need not be the sole repositories of DCs. For instance, a structure, such as the multidivisional (M)-form organization, can also be a potential repository of DCs. For Chandler (1962) and subsequent scholars on the M-form organization, the use of this organizational structure was intended to facilitate growth and/or address transaction cost (TC) challenges in large and complex organizations (Williamson, 1975). By creating a new layer of management and adding an elite advisory group to the board, the M-form became, by definition, almost a potential repository of new DCs. It is important to note that the exercise of DCs need not engender success (Ambrosini & Bowman, 2009; Helfat et al., 2007).

A challenge in the DCV concerns the interaction between capabilities residing in humans or in non-human organizational structures. Organizational structures that foster agility and simultaneously help improve a firm's productive opportunity. For instance, a heterarchy (Hedlund, 1986) can help achieve this by expanding the sources of decision making and fostering agility. Pitelis and Wagner (2019) proposed that *strategic shared leadership* can serve as a purposeful means of marrying human with non-human DCs. However, there is little in the DCV literature that explores the link between, for instance, organizational structures and people. We take up this point below.

Another challenge in the DCV regards the three vehicles through which DCs are manifested: sensing, seizing, and transforming/reconfiguring (TR). These three are meant to be generic categories rather than an exhaustive list of vehicles. For instance, sensing requires scanning/identifying, diagnosing, appraising, and selecting opportunities from all those available and/or creating new opportunities. Seizing requires putting together an appropriability apparatus, such as barriers to entry, valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities, and branding (Pitelis, 2009), to help capture value from the said opportunities. TR requires operating on the resource base and thus changing the organization itself so that sensing and seizing are aligned with and help upgrade the productive opportunity. This normally implies amassing resources and ordinary capabilities; putting in place organizations, structures, systems, processes, and cultures; recruiting human resources; creating teams; monitoring their contributions; and orchestrating the entire process. From the triad, TR is more closely linked to the definition of DCs in that it drives organizational adaptation and change. This suggests that it is first among equals. A possible addition to the sensing, seizing, reconfiguring triad is anticipating (Pitelis & Teece, 2018). However, this can also be partly seen as being incorporated in sensing. In short, although a case can be made for the triad to be expanded, this should be done by identifying categories that are orthogonal to the triad rather than mere subparts of it.

Despite diversification strategy being viewed by some scholars as the natural milieu of the DCV (Ambrosini & Bowman, 2009; Pitelis & Wang, 2019), we are not aware of studies that use diversification as the dependent variable. Doing so would be akin to the modality/governance choice of vertical integration in TCE (Monteverde & Teece, 1982). (It is worth noting that TCE itself faced similar challenges as the DCV until Monteverde and Teece (1982) were able to measure and use the widely agreed upon proxy for TCs, that is, asset specificity, alongside the widely agreed proxy for vertical integration, as the dependent variable). It is interesting that, in IB, an *ally* modality in the form of international joint ventures, for instance, has already been used as a dependent variable (Zarha et al., 2021). By extension, the modality of foreign direct investment (FDI) would be appropriate for the case of IB. In addition, context creation (e.g., a business ecosystem or a new market) could serve as a legitimate dependent variable for the DCV (see below). Finally, the word "dynamic" in the DCV might well refer to capability itself. If so, this will also need to be conceptualized and tested.

Overall, the potential scope (dependent variables) of the DCV is much wider than recognized. Besides the already explored relationships between DCs, the resource base, and performance, the word "dynamic" in DC could also apply to *capability*, a make/buy/ally modality intra- and internationally, and to the creation and co-creation of the context within which firms operate (see below).

## RELATION TO OTHER THEORIES, OPERATIONALIZATION AND TESTING

Like many new theories , the DCV is often regarded as an alternative to other theories and views (Teece, 2014). Instead, we view the DCV as a meta-theory a theory about theories. The DCV applies to all extant theories in that it helps their application. This is because capabilities in general and DCs are essential prerequisites for all business activities. For instance, if a firm wishes to reduce the forces of competition, as suggested by the RR approach (Hymer, 1960/1976; Porter, 1980), it will need capabilities to implement this. If a firm wishes to reduce TCs by choosing the appropriate make/buy modality, as proposed by TCE, it will also require capabilities to do so. To achieve *negotiated outcomes* between intra-organizational actors, as suggested by behavioral theory, the firm will need capabilities to realize this. The important takeaway is that the concept of capabilities applies to all other theories.

However, the DCV also extends extant theories in important ways. Notable is the case of context creation and co-creation. Arguably, when firms use capabilities to implement the prescriptions of theories, they also help change the context within which they operate. This is mostly an incidental outcome, though. In the case of the DCV, context creation and orchestration are part and parcel of the framework (Pitelis & Teece, 2010). When a firm seeks to reduce rivalry within a given context, such as the industry, arguably, only ordinary capabilities may be required. If the same firm wishes to change the context within which it operates, for instance, to reduce the forces of competition in an intertemporal and sustained manner, it should be thinking about how it can diversify into new promising areas; create new markets, industries, business ecosystems, and global and local value chains; and/or enter into blue oceans (Mauborgne & Kim, 2007). This entails DCs to determine where future opportunities can be.

Similar considerations apply to TCs, the RBV, and BT. In the short term, TC reductions can be achieved through make/buy/ally choices, the implementation of which requires the use of ordinary capabilities to help the firm do things right. Long-term TC reductions, however, require DCs that help the organization do the right things at the right time. This means selecting the most appropriate make/buy/ally decisions and doing them in a timely fashion. In the case of the RBV, in a given context, organizations can acquire, build, and upgrade VRIN resources using ordinary capabilities. To be at the right activity at the right time and do things right, they will need to use DCs and simultaneously leverage ordinary capabilities. To achieve negotiated outcomes in a given organization, the TMT can utilize ordinary, well-tested capabilities. However, to achieve the same intertemporally, the organization should use its DCs to be in the right place at the right time and thus be ahead of competition and the cost pressures that often give rise to intra-organizational conflicts (Pitelis, 2007).

It follows that context creation and orchestration are key advantages of the DCV vis-a-vis the four other theories that mostly take the wider context, such as the industry, as a datum. As already noted, context creation does not need to guarantee success. Moreover, firms can diversify without possessing or exercising strong DCs. The failures of many cases of conglomerate diversification, as discussed, for example, by Porter (1987), attest to this. The key takeaway, however, is that, besides the DCV being applicable to the four other major theories, it helps expand and enrich them through its focus on context creation and co-creation. For this reason, we claim that the DCV is a meta-theory-*plus*.

The aforementioned idea can be illustrated through a description of the link between DCs and the four theories, which is shown in Figure 1. While ordinary capabilities are necessary for the implementation of the four extant theories (rendering DCs a meta-theory in this context), DCs are required for the creation and co-creation of the context within which the three other theories operate—this is the key addition coming from the DCV, thus the *plus*. As already noted, while the use of capabilities to implement the prescriptions of extant theories affects the context (hence the dotted line arrow going from the four theories back to the context), the DCV directly affects the context. The actions prescribed by the other theories also have implications for the development of capabilities. This is shown by the dotted line arrow that goes back to the capabilities box. Evidently, these interactions point to simultaneity challenges when testing empirically the DCV.

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Insert Figure 1 about here

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Many case studies can highlight instances of DCs in practice—both actionable and actioned. For instance, let us go as far back as Edith Penrose's (1960) famed case of the Hercules Powder Company. The R&D department of explosives producer Hercules came up with the substance carboxymethyl-cellulose (CMC) of many potential uses. The TMT launched a campaign in the national press asking the question, "What do you see in CMC)?" From the potential uses of the new substance, its application to wood products was selected by the TMT as the most promising. Hercules then sought to develop capabilities to diversify into wood products. In so doing, it diversified in terms of products, activities, and markets. Differently put, Hercules sensed an opportunity and reconfigured its resource base to seize it. As already noted, success was not assured, and it rarely, if ever, was (Kay, 1999). This can help explain the reluctance of many DCV scholars to link DCs to SCA (Ambrosini & Bowman, 2009; Schilke et al., 2018). However, in competitive environments, the lack of change and failure to take advantage of opportunities are often not options.

Case study-based evidence is very important but can be difficult to generalize. More conceptual, qualitative, and quantitative work is also required. Given some inevitable confusion about DCs, the relative infancy of theorizing about them, and their unprecedented capture of scholarly imagination and accompanying enthusiasm, the now substantial and expanding empirical studies need to move to the maturity stage that applies widely accepted proxies for the key concepts. Key decisions are how to proxy and measure human DCs, non-human DCs, the organizational resource base, the modality, SCA, and the context.

The state of empirical play is described in two extensive survey articles by Laaksonen and Peltoniemi (2018) and Baía and Ferreira (2019). The former study observes a misalignment between theory and empirical measures. The latter notes that researchers apply a continuum of conceptualizations of DCs, ranging from very specific ones to generic sets that both diverge and overlap. Moreover, extant empirical papers use numerous performance measures. Both papers conclude that there is substantial scope for improvement. From a dearth of empirical studies on DCs, we may now have moved to the opposite position—hundreds of empirical studies that are often poorly aligned with or supported by theory. The recommendation to pursue more careful empirical work is worthy of serious consideration in future research.

Interdisciplinary work is also important. For example, human capabilities are discussed and proxied in labor economics (Georgiadis & Pitelis, 2012). Social capabilities are explored in the capabilities view of economic development championed *inter alia* by Amartya Sen (2005) and the UN. Often missing from these more macroeconomic contributions is the focus on the firm and its resources and capabilities. At the same time, however, the literature and empirical evidence on the multi-person concept such as social capabilities (Fagerberg & Srholec, 2008) can be cross-fertilized with work on the similarly multi-person concept of organizational capabilities. That DCs are often unobservable does not mean that their repositories are non-measurable. In addition to human and social capital, the non-human resource base can be measured in ways akin to the RBV—a firm's VRIN resources.

As a rule, the ultimate repositories of DCs are human resources with direct decision-making power—the TMT. Middle managers and labor can also be repositories of DCs, an observation that goes back to Adam Smith's (1776) identification of laborers as sources of invention. These DCs, however, can be put to action in large firms only by following due process and convincing the TMT. In this context and save for cases in which middle management or labor can have decision rights (such as in the case of some cooperatives), they are best seen as part of the resource base and culture, which, in turn, overlap with the DCs of the TMT to produce the aggregate organizational DCs. Such and other overlaps with the resource base can pose further potential endogeneity challenges. This is in addition to the requisite congruence between concepts and measures.

Interactions between human and non-human capabilities are critical, and so are mediating and moderating variables. The resource base can be a key mediating variable between DCs and SCA; it is a dependent variable favored by many scholars (Ambrosini & Bowman, 2009; Schilke et al., 2018). However, the resource base can also possibly be an independent variable that helps predict DCs and ultimately affects SCA. All these point to a high degree of simultaneity that renders econometric analysis more difficult. Strategic shared leadership can help mediate the relationship between DCs and the resource base of SCA (Pitelis & Wagner, 2019). A potential moderating variable is the degree of competition, as, for example, measured through the Herfindahl index of concentration (Cowling & Waterson, 1976). The key measures of SCA are long-term profitability, sales revenue, and/or productivity.

To determine whether there is empirical support for DCs, we need to find a positive relationship between properly measured DCs as the independent variables and the selected dependent variable, such as the resource base, SCA, the modality, and the context, alongside the control variables, moderators, and mediators. As always, causal inference is important in separating correlation from causality. However, we are not aware of any econometric studies that account for causal inference to date (Pitelis, Georgiadis, & Piteli, 2022). This also needs to be rectified. For instance, the special issue of this journal on making DCs actionable includes no such econometric study (Zahra et al., 2021). More progress in this area is required.

## THE MNE, ORCHESTRATION, AND BUSINESS MODEL INNOVATION

Diversification strategies can be intra-national and/or cross-border, and the latter can sometimes be more complex and interesting. The company EMI is a case in point. A leader in the UK music sector, with the Beatles, Pink Floyd, and many others in its books, EMI invented the technology that led to the computerized tomography scanner in its laboratory. Faced with the option to make, buy, or ally, the TMT chose to make through an unrelated cross-border diversification into the medical equipment sector, entering the US market through greenfield investment. Following its early success, which leveraged its patent and first-mover advantage, EMI was subsequently obligated to exit the sector when powerful competitors with complementary assets and capabilities entered (Pitelis, 2015; Teece, 1977).

The DCV's success in strategic management is gradually being mirrored in IB and in the case of the MNE. The study by Pitelis and Teece (2010) on the MNE was built on an earlier paper by the two authors on the new nature and essence of the firm (Pitelis & Teece, 2009) and argued that the firm and, by extension, the MNE should be seen as all about aspiring entrepreneurs who seek to capture co-created value from their value-creating advantages and actions. This often requires setting up organizations and leveraging the resources and capabilities they provide that are not readily available in market exchanges (e.g., profiting through arbitrage) alone.

A key aspect of organizational comparative superiority/market failure relates to innovation that is usually taken as given in mainstream SCP and TCE-type theorizing. In this context, organizational creation (the nature of the firm) is not attributed to market failure, as in Coase (1937), but to perceived organizational advantages by aspiring entrepreneurs who help them realize their visions by either operating within and/or by shaping the context within which they operate (Jones & Pitelis, 2015). The aforementioned shaping of context includes creating and co-creating markets and industries as well as supporting business ecosystems.

Market and business ecosystem creation and co-creation are potent reasons for the creation of organizations (the nature), and for taking actions to co-create and capture co-created value (the objective and the essence). Actions and strategies include taking and implementing make/buy/ally decisions nationally and cross-border. The creation of cross-border markets and supporting ecosystems helps shape the context within which make/buy/ally decisions are taken, and they represent a manifestation of DCs par excellence (Pitelis & Teece, 2010). This is because context co-creation is arguably the key strength of DCs and the comparative weakness of extant perspectives on the MNE, which usually take the context as exogenous to firm actions.

As noted earlier, extant theories of the MNE have paid limited attention to context creation and co-creation. Instead, they have focused more on the reasons why internalization, namely, the choice of FDI over more market-based alternatives, such as licensing, is often preferred by firms that choose to operate cross-border. In Hymer (1960/1976), the key reasons for FDI were control and market power, superior exploitation of advantages in-house, and international diversification. Internalization theory focused on the reasons why intra-firm transfer of knowledge is less costly and/or faster in terms of both transaction and production costs (Buckley & Casson, 1976; Teece, 1977). Dunning's (2001) Ownership, Location, Internalization (OLI ) framework emphasized location advantages, alongside the ownership and internalization advantages championed by internalization scholars. Evolutionary theories, such as those by Kogut and Zander (1992), focused on the superiority of organizations in transferring tacit knowledge in-house versus the external market. Similar considerations apply to the case of Johanson and Vahlne (1977), who argued for a process and learning (as well as, more recently, commitment)-based theory of cross-border expansion that drew on insights by Penrose (1959).

Despite reference to the international, the aforementioned theories of the MNE and FDI can be equally applicable to national firms (Pitelis & Boddewyn, 2009). The country-specific advantages (CSA)/firm-specific advantages (FSA) approach by Rugman and Verbeke (2001) helps account more explicitly for the “F” in FDI, implying crossing national borders. Less MNE-centric approaches and the bundling approach by Hennart (2009) considered both MNEs and host-country firms. In virtually all of these cases, the role of the key player in a country, namely, its government, has received little consideration. This is despite the large and expanding literature on the non-market strategies of MNEs (Doh, Lawton, & Rajwani, 2012; Mellahi, Frynas, Sun, & Siegel, 2016; Wrona & Sinzig, 2018). Below, we suggest that the DCV helps address this limitation.

Teece (2014) elaborated on some of the key advantages of the DCV when applied to the MNE and FDI vis-à-vis extant theories, not least its ability to explicate market and business ecosystem co-creation (Pitelis & Teece, 2010). This might have helped create the impression that DCV is positioned as an alternative theory to extant ones. Instead, as in the case of national firms, the DCV is more of a meta-theory. It can be applied to extant theories, and it can apply all the concepts provided by other theories and explicate the requisite capabilities to apply these theories and concepts while shedding light on novel aspects, such as cross-border context co-creation. However, the DCV applies the concept of cross-border co-specialization as an additional reason for FDI in IB scholarship. In so doing, the DCV of the MNE and FDI aligns with both traditional and internalization theory and with the CSA/FSA and bundling approaches. It helps add an important reason for FDI in a comparative static context, as in traditional internalization theory, and helps develop an entrepreneurial theory of the MNE, in which context co-creation and the capabilities required to sense and seize cross-border opportunities are essential in maintaining SCA.

The focus of the DCV on entrepreneurs brings it closer to the expanding international entrepreneurship, new venture creation, and born global firms literature (Autio, 2005; Gassmann & Keupp, 2007; Keupp & Gassmann, 2009; Knight & Cavusgil, 2005; Liesch & Knight, 1999; McDougall & Oviatt, 2000; McDougall, Shane, & Oviatt, 1994; Sapienza, Autio, George, & Zahra, 2006). These theories explored factors such as knowledge of a host country's environmental conditions, which provided incentives and allowed firms to operate in multiple countries almost simultaneously. Similarly, the DCV discussed how entrepreneurs motivated by the appropriability of co-created value use co-specialized resources, capabilities, and power, combined with a good strategy, to shape and orchestrate the context within which MNEs operate (Jones & Pitelis, 2015; Pitelis & Teece, 2010; Teece & Petricevic, 2021). Context co-creation, the capabilities required to effect this, and co-specialization serve as distinguishing factors between what one might call international operations (which included exporting and licensing) and multinational operations, which traditionally highlight the role of FDI (Dunning & Lundan, 2008).

For Pitelis and Teece (2018), the key motto of the DCV is orchestration. Orchestration theory emphasizes the need to coordinate activities and knowledge across an MNE's global network and value chains, making it a better fit with the unique issues associated with cross-border operations. This requires ordinary capabilities and DCs to do the following:

1. Create and co-create organizations
2. Create and co-create markets and business ecosystems
3. Put in place strategies and BMs to create and capture co-created value in a sustained way
4. Leverage complementarities and manage competition with cooperation (coopetition) and internalization with externalization (such as open innovation)
5. Develop and leverage DCs to anticipate, sense, seize, and reconfigure, and ordinary capabilities to implement the above steps better than rivals do

While traditional internalization theory focuses on integration (and sometimes cooperation) strategy—often motivated by TC and RBV considerations—to create and capture value (Narula & Verbeke, 2015), the orchestration perspective encompasses both integration (internalization) and outsourcing (externalization); the modality depends on the interactions between the value creation and capture strategy and the capabilities involved in implementing these successfully. Importantly, orchestration emphasizes the co-creation of context, which was originally taken as given in traditional internalization theory. In the above context, orchestration can be seen as an envelope that includes internalization. Clearly, modern internalization theory entails more than the mere internalization of activities, and it bears close similarities with and anticipates aspects of the DCV (Narula & Verbeke, 2015). This is not very surprising considering that the lineage of both theories is Hymer's focus on profiting from advantages, which included certain skills and capabilities (Dunning & Pitelis, 2008; Hymer, 1960/1976; Pitelis, 2006; Teece, 1985; Zahra et al., 2021).

It is worth clarifying that both internalization theory of the MNE and the DCV/orchestration view are mostly applied to explicating the strategic decisions of existing hierarchies, not the decision to create a hierarchy to start with. For the latter, DCs can play a key role alongside other factors that explicate the original act of internalization. This is because the anticipation of created and co-created DCs that can help sense and seize cross-border opportunities can serve as a reason to create an organization to start with. These ideas have not yet been adequately explored and developed. To that extent, while the traditional internalization theory of the Coase and Hymer type arguably relates to the original act of setting up a firm (the nature of the firm), the DCV and orchestration theory as they currently stand are more about what extant hierarchies do (i.e., the essence of the firm and the MNE). As already noted, the two theories (internalization and orchestration) can be integrated to help explain the original act of internalization (the creation of de novo organizations) through a focus on the entrepreneur, namely, a recognition that the original internalization decision lies upstream with the entrepreneur, both for the case of internalization theory and the DCV (Pitelis & Buckley, 2021).

As highlighted above, the BM is part and parcel of orchestration theory. It is defined by Teece (2010: 191) as the "design or architecture of the value creation, delivery, and capture mechanisms" of a firm. It is basically the organization's value proposition to the potential users of its products and services and is an implicit or explicit statement about how the firm intends to create and capture value in a way that also adds value to the said users. Typically, manufacturing firms, such as the UK engineering firm Rolls Royce, have created and captured value through the design of an architecture that allowed them to produce, sell, and deliver reliable products, such as aircraft engines, to interested buyers.

Our above discussion helps clarify the relationships between the MNE and its BM, as well as the advantages of multinationality. In the DCV, the MNE is viewed as both an orchestrator of the value creation and co-creation processes and the shrewd decider of make/buy/ally decisions within this very purposefully co-created context. The shift of focus from internalizer to orchestrator implies mainly that the BM is not about buyers alone but also about all potential stakeholders of the ecosystem and competitors (now seen as co-coopetitors) (Pitelis & Teece, 2010). This can include host (and home) country governments. Liaising with governments can be seen as part and parcel of orchestration and, in particular, the seizing of opportunities. Absent a good relationship, even the best opportunity can only remain a dream. This is notwithstanding one's views about the broader issue of non-market strategies, which are highly contested (Doh et al., 2012; Mellahi et al., 2016; Wrona & Sinzig, 2018). In this context, the DCV is more aligned to open team production (Berti & Pitelis, 2021), as opposed to the more traditional closed team production approach that early internalization theory applied.

The above highlights the need for BMI, which is basically a change in the BM that accounts for the entire global productive opportunity of an MNE. Many manufacturing firms, such as Rolls Royce, have innovated their BMs by focusing as much on the delivery of reliable products as on the servicing of these products. This so-called servitisation process has led manufacturers, such as Rolls Royce, to introduce a BMI in which they make their revenue from servicing the aircraft engines they sell rather than by selling the manufactured engines (Bailey, Bellandi, Caloffi, & De Propris, 2010).

Compared with the BM of a national firm, that of an MNE includes the productive opportunities of each subsidiary. Importantly, the MNE needs to incentivize, orchestrate, and monitor all players in the value co-creation process (Barney, 2018; Berti & Pitelis, 2021; Klein, Mahoney, McGahan, & Pitelis, 2019). This requires that the BMI encompass innovations in the entire value creation, value capture, and distribution of value between internal and external stakeholders, as well as include the improvement of structures, systems, processes, and cultures and the building of capabilities. All these help upgrade the organization's productive opportunity in a way that said opportunity is better aligned with that of the ecosystem while simultaneously helping shape and orchestrate the ecosystem. It follows that, to the extent SCA is a desideratum, companies whose BMs and BMIs ignore the ecosystem are likely to find themselves outperformed by others that are more ecosystem conscious (Berti & Pitelis, 2021).

## CONCLUSIONS AND IMPLICATIONS

The DCV has made major strides, and it is seen by many as a leading theory in strategic management and, gradually, in IB. We have suggested that it is best seen as a meta-theory-*plus*, namely, a theory about theories that applies to, builds upon, and enriches extant theories and concepts, focusing on the essence of the firm doing business. The latter includes shaping the context within which organizations, markets, and business ecosystems are created, co-created, and orchestrated. In this context, actors and structures interact in a way that fosters the co-creation and capture of co-created value and the continuation and orchestration by firms and their TMT of the value co-creation process. This helps inform everything that businesses do. This includes  their BMs and BMIs. More needs to be done in terms of identifying a commonly and more widely agreed-upon definition of DCs in terms of the operationalization of the key concepts and aligning theory with evidence, which both adds to the wealth of already available evidence and affords better understanding and interpretation.

A key external actor is the government, which is an essential actor, both within nation-states and in cross-border transactions. The government is normally expected to provide the rules of the game and the type and degree of competition that foster appropriate conditions for value capture and the sustainability of the value co-creation process (Mahoney, McGahan, & Pitelis, 2009). As noted by North (1981), this is more the exception than the rule. Nevertheless, firms should incorporate the role of the government, its actions, and its failures in their BMs and BMIs.

In conclusion, when suitably developed to address the limitations, we have pointed out, as well as others that we have not identified in this paper, and cross-fertilized with other theories, the DCV can serve as an integrative framework within which every good idea can find its place, and the whole is more than its individual parts. We hope that our commentary will contribute to more discerning conceptual and empirical advancements.

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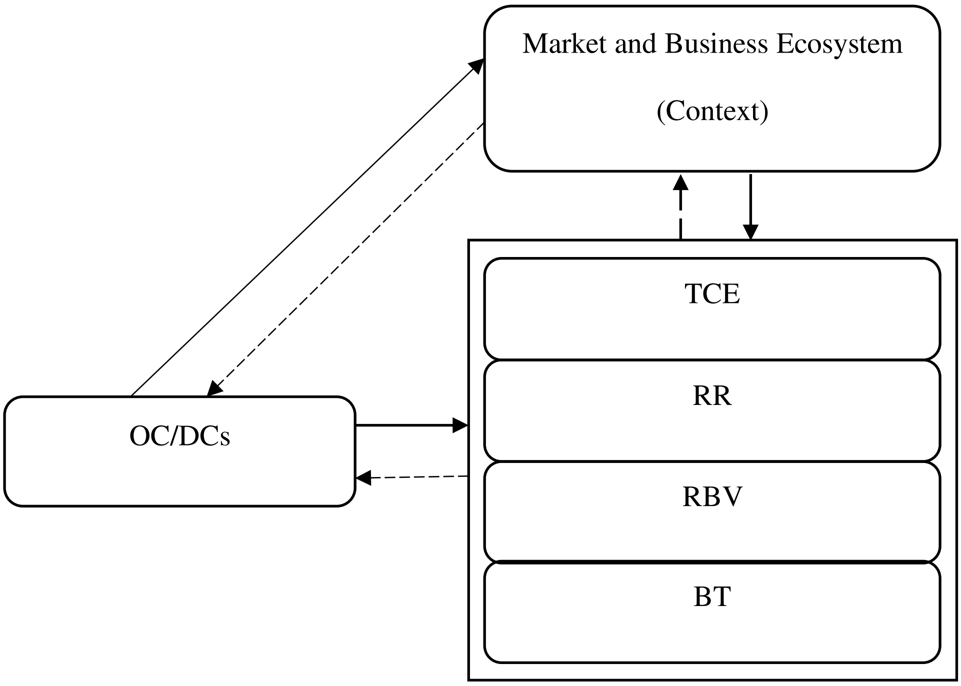
**FIGURE 1. THE DCV AS A META-THEORY-*PLUS***

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