

Dellestrand, Henrik; Kappen, Philip; Lindahl, Olof

Article

Headquarter resource allocation strategies and subsidiary competitive or cooperative behavior: Achieving a fit for value creation

Journal of Organization Design

Provided in Cooperation with:

Organizational Design Community (ODC), Aarhus

Suggested Citation: Dellestrand, Henrik; Kappen, Philip; Lindahl, Olof (2020) : Headquarter resource allocation strategies and subsidiary competitive or cooperative behavior: Achieving a fit for value creation, Journal of Organization Design, ISSN 2245-408X, Springer, Cham, Vol. 9, Iss. 1, pp. 1-16,
<https://doi.org/10.1186/s41469-020-00070-3>

This Version is available at:

<https://hdl.handle.net/10419/252157>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

RESEARCH

Open Access



Headquarter resource allocation strategies and subsidiary competitive or cooperative behavior: achieving a fit for value creation

Henrik Dellestrand, Philip Kappen and Olof Lindahl* 

* Correspondence: Olof.Lindahl@fek.uu.se

Department of Business Studies,
Uppsala University, Box 513, SE-751
20 Uppsala, Sweden

Abstract

Integrating insights from the literature on the multinational corporation into current perspectives on resource allocation, we argue that the ability of headquarters to create value through resource allocation to subsidiaries within the multinational corporation is contingent on the complementary fit between the resource allocation strategy and the dominant behavior of the receivers of the resources. We expound on a theory and an explanation for the volatility of value creation generated by headquarter resource allocation that includes multiple layers of hierarchy. As a corollary, we extend and contribute to the theorizing on headquarters-subsidiary relations and resource allocation by illustrating different scenarios of the resource allocation process. More specifically, we develop a two-by-two matrix of the resource allocation process that corresponds to different resource allocation strategies of headquarters (winner-picking and cross-subsidization) and subsidiary behavior (collaboration or competition) in multinational corporations. We argue that, depending on which scenario within the matrix is brought to the fore, our understanding of how the resource allocation process plays out between headquarters and subsidiaries will differ and therefore influence value creation within the multinational corporation.

Keywords: Headquarter value creation, Headquarters-subsidiary relations, Multinational corporations, Resource allocation, Winner-picking, Cross-subsidization, Competition, Collaboration

Introduction

The headquarters of multinational corporations (MNCs) perform many sophisticated activities (e.g., Ciabuschi et al. 2017; Dellestrand and Kappen 2012; Menz et al. 2015; Nell et al. 2017). As part of this, often referred to as the strategic role of headquarters (Goold et al. 1994), resource allocation to subsidiaries has been argued to be a source of both value creation (e.g., Khanna and Tice 2001; Nell and Ambos 2013) and value subtraction (e.g., Ciabuschi et al. 2011; Scharfstein and Stein 2000).

In recent research, which has started to delve into resource allocation strategies, the evidence reported is mixed as it relates to value creation (Khanna and Tice 2001; Ozbas and Scharfstein 2009; Scharfstein and Stein 2000). While it may be axiomatic to most observers that resource allocation can both create and subtract value, what is less clear is exactly how or under what circumstances it does so. In this paper, we argue

that this is so because of the interplay between headquarters and subsidiaries within the MNC.

The traditional assumption in the literature appears to assume that headquarters, owing much to their superior capabilities, creates value when allocating resources (e.g., Donaldson 1984; Williamson 1975). This could be due to the focus on the provider (i.e., the headquarters) rather than the recipient (i.e., the subsidiary that receives resources allocated by the headquarters). Although subsidiaries are typical recipients of resource allocation from headquarters for the purpose of creating value for the organization as a whole, research has often assumed their behavior to be passive, homogenous, and aligned to corporate strategy (see Kostova et al. (2016) for a review). However, there are reasons to believe subsidiary behavior is sometimes active, heterogeneous, and not always aligned with the overall corporate strategy (Ambos et al. 2010; Andersson et al. 2007; Cuervo-Cazurra et al. 2019). In fact, the MNC has been depicted as a federative arena in which units (both headquarters and subsidiaries) fight for power and influence (Andersson et al. 2007). As a corollary, goal conflicts between headquarters and subsidiaries might emerge (Egelhoff et al. 2013; Pahl and Roth 1993). As a result, the effects of variations in subsidiary behavior on the outcome of resource allocation have remained relatively unexplored from a theoretical perspective.

This suggests that there might be resource allocation strategies from headquarters that are related to themes of the inner workings of the resource allocation process that have been left relatively uncharted in current research. Drawing on a complementary fit¹ logic (Cable and Edwards 2004; Ostroff 2012), we integrate and contrast resource allocation strategy with subsidiary behavior, which leads to our framework for understanding headquarter value creation. We subject the traditional organizational structure of internal competition and internal cooperation to the pressures imposed by employing a winner-picking or cross-subsidizing resource allocation strategy. We do this to better understand what these combinations yield in terms of value creation from a complementary fit perspective. This approach echoes pertinent themes in the organizational design literature related to fit and coordination as well as configuration and control (Foss 2019; Joseph et al. 2018). In addition, our approach resonates with recent research that delves into issues related to how the use of control mechanisms by headquarters is contingent on subsidiary power (Ambos et al. 2019).

Specifically, we present a theory of complementary fit between headquarters' resource allocation strategies and subsidiary behaviors that allows us to understand the bright and dark sides of headquarter resource allocation in the MNC. In doing so, we answer the call for research on the connection between organizational design and headquarters (Foss 2019). Focusing our discussion on the value-creating role of headquarters in allocating resources throughout the MNC, we consider two opposing generic resource allocation strategies—i.e., the winner-picking strategy and the cross-subsidization strategy—by which headquarters may create this value. We present four main scenarios of how the resource allocation process might be understood in MNCs, which subsequently influence the theoretical mechanisms that are believed to influence the outcomes of the resource allocation process.

¹The term complementary fit refers to the extent to which the strength or weakness of one organizational unit is offset by that of another and vice versa (Muchinsky and Monahan 1987). As such, it is similar to the idea of congruence between organizational units as discussed by Nadler and Tushman (1980).

In the paper, we show how the complementary fit between resource allocation strategy and subsidiary behavior influence value creation. The notion of complementary fit is important as headquarter resource allocation strategies might only work as intended given certain subsidiary behaviors. For an organization to function properly, its components must exist in a state of relative balance. A lack of balance between interfacing components will lead to dysfunction. Consequently, we propose that headquarter resource allocation should take place in an overall system that needs to harmonize to facilitate value creation within the MNC. The theory developed in this paper addresses a critical omission in current literature on headquarter resource allocation and ultimately suggests that headquarter value creation in the resource allocation process cannot be meaningfully understood without also considering the subsidiary perspective.

Background

Following Collis et al. (2007, p. 385), headquarters can be defined as “staff functions and executive management with responsibility for, or providing services to, the whole (or most of) the company, excluding staff employed in divisional headquarters”.² Subsidiaries are defined as entities that signify aggregations of the firm’s holdings in host countries and non-parent entities in the home country (Birkinshaw and Hood 1998). The definition entails the human decision-making entities that have the ability to engage in productive effort as well as in non-productive value-subtracted efforts. Such a definition relaxes the assumption of traditional hierarchies, where affiliates are viewed more like army formations than an interconnected heterogeneous collection of geographically dispersed subsidiaries (Bartlett and Ghoshal 1986; Blomkvist et al. 2017; Hedlund 1986; Nohria and Ghoshal 1994).

Headquarter value creation is tied to resource allocation in the sense that resource allocation is one way in which headquarters can attempt to create value for the MNC, which goes above and beyond the value created by the operational activities of subsidiaries (Ambos et al. 2010; Bouquet and Birkinshaw 2008).³ Resources might be more or less fungible and therefore more or less arduous to allocate. For the sake of simplicity, the resources discussed herein are to be viewed as capital allocations (Sengul et al. 2019). These also happen to be the resources that are easiest to observe, are fastest to transfer, and have been the subject of prior studies, starting with the seminal piece by Lamont (1997), who provided evidence of overinvestment in non-oil divisions of diversified oil firms in times of high oil prices.

²It is questionable whether this definition includes divisional headquarters as a part of corporate headquarters. Including divisional headquarters has strong theoretical ramifications. First, it influences where strategy is conceived and how a top-down or bottom-up perspective on strategy making can be viewed. Second, divisional headquarters might be closer to subsidiary operations and work more closely in collaboration with the subsidiaries, whereas corporate headquarters might be more concerned with overall strategy making. Third, it influences the size of headquarters and the activities performed. Fourth, it suggests legitimacy. On the one hand, divisional headquarters might be perceived as a more active business network participant and therefore have a greater degree of legitimacy than corporate headquarters (Forsgren et al. 2005). On the other hand, external actors might perceive corporate headquarters as the legitimate actor to interact with (Birkinshaw et al. 2006). This question merits considerable attention but is not dealt with in the present paper.

³According to the reasoning of Puranam and Vanneste (2016) and their discussion about corporate advantage, value creation can refer to the synergies of the activities pursued by both headquarters and subsidiaries. However, while value may be created at both these levels, headquarter resource allocation in itself rests on the notion that while subsidiaries create value by using resources in operational activities, headquarters may also create value by allocating resources in the way that is the most valuable for the MNC as a whole. Thus, value creation as discussed in this paper concerns the aggregate MNC.

Complementary to the literature on financial capital allocations is the literature on inter-temporal economies of scope (Folta et al. 2016; Helfat and Eisenhardt 2004; Levinthal and Wu 2010; Lieberman et al. 2017; Sakhartov and Folta 2015). This stream of research typically focuses on a broader set of resources (e.g., Levinthal and Wu 2010) and in doing so emphasizes relatedness and how the ability of redeploying resources from one subsidiary to another over time might in itself create value by lowering both entry and exit costs.

While this paper focuses on capital resources, the abovementioned stream of research is nonetheless relevant to our discussion. The central idea that a firm might redeploy resources committed to one market to another also suggests that more value can be created in cases where there are little sunk costs. This in turn depends on how related the two markets are or where the resources yield a higher return elsewhere, which in turn depends on the redeployment costs and the performance advantages of redeploying (Penrose 1959; Sakhartov and Folta 2015). Beyond avoiding sunk costs and allowing for redeploying resources to more efficient use, the ability to redeploy also reduces the risk of entering new markets by reducing the cost of failure (Lieberman et al. 2017).

Regardless of the type of resource allocated, it is clear that this activity is not without its challenges. Overinvestment (Arrfelt et al. 2015), empire building (Xuan 2009), and rank-ordering error (Stein 1997) are just a few of the difficulties that suggest that the resource allocation process can be multifaceted and largely dependent on the strategies and interactions between different entities within the MNC. As a corollary, the MNC system of headquarters and subsidiaries represents a fertile ground for analyzing resource allocation using an organizational design perspective, as this underscores key contingency considerations of how to best divide the organization into subunits and how to integrate and control those subunits in support of the organization's goals (Joseph et al. 2018; Lawrence and Lorsch 1967).

Headquarter resource allocation

The extant literature lists the roles headquarters play that can potentially strengthen the competitiveness of the MNC (see, e.g., Menz et al. 2015). A common feature of many of these roles is that they are concerned with how headquarters manages the MNC as a whole rather than manages the specific operational activities of subsidiaries (Chandler 1962, 1991; Ciabuschi et al. 2012). Although headquarters' attempts at value creation (e.g., the allocation of resources across the MNC) might aim to increase competitiveness, the outcomes of such attempts can vary.

Research on resource allocation concerns the role of headquarters as a value creator through the allocation of resources to a subsidiary of the MNC under the assumption of resource constraints. In such a setting, for example, the surplus generated in one subsidiary might be allocated to another, or the resources of one subsidiary might be used to underwrite a loan to another subsidiary. That is, resources are allocated based on the subsidiary's relative investment merits rather than absolute investment merits (Stein 1997).

The research allocation process was brought to the attention of management scholars by Bower's seminal work, which analyzed the forces that shape the resource allocation process (Bower 1970). However, this work represents an important perspective in terms

of highlighting top-down processes in firms; that is, in terms of organizational design, the hierarchy is connected to enable vertical specialization and a division of labor (Chandler 1962; Simon 1957). Moreover, the resource allocation literature places much less emphasis on the motives and behaviors of the units being the targets for resource allocation (Bower and Gilbert 2005).

However, the extent to which the resource allocation activity is of actual value to the MNC is still subject to debate, with one stream of literature claiming that there is a dark side to it (e.g., Ciabuschi et al. 2011; Scharfstein and Stein 2000; Stein 2002) and another stream stating that resource allocation is one of the primary objectives for headquarters (e.g., Donaldson 1984; Khanna and Tice 2001). A possible reason for these deviating standpoints is that these views rest on diverse and sometimes conflicting assumptions about the relationship between the strategies pursued by headquarters and the way these strategies affect MNC's subsidiaries. Still, what these strategies and effects are and how they relate to MNC value creation remain unclear. Headquarter resource allocation in MNCs can, broadly speaking and for the purpose of using two contrasting resource allocation strategies, be understood as a choice between either (1) winner-picking or (2) cross-subsidizing among the firm's subsidiaries.

A winner-picking strategy means that headquarters disproportionately support the strongest performing subsidiaries by allocating disproportionate amounts of resources to them (Stein 1997; Scharfstein and Stein 2000). The idea of winner-picking is essentially the efficiency-seeking of top managers in the MNC to ensure that the highest value investments are pursued. This resource allocation approach is akin to the thinking about efficient capital markets (Scharfstein and Stein 2000). For example, the strategy of allocating resources to subsidiaries based on profitability is common to many firms in the consumer electronics industry: the Philips Corporation (Bartlett 2009) provided ample resources to boost its profitable country subsidiaries (e.g., Israel, Japan) and, over time, under-funded and subsequently divested several of its low-performing subsidiaries (e.g., Sweden, Greece).

The cross-subsidization strategy, conversely, means that headquarters disproportionately supports the weakest performing subsidiaries at the cost of under-supporting stronger subsidiaries (Scharfstein 1998; Scharfstein and Stein 2000; Shin and Stulz 1998). The idea of cross-subsidization reflects the tendency of top managers in MNCs to manage rough business climates by prioritizing to keep different subsidiaries of the MNC (and the synergies between them) intact by ensuring that crucial strategic value is not lost due to short-term events.

The cross-subsidizing resource allocation approach reflects the thinking in the strategy literature where assumptions of economies of scope and synergies take precedence over short-term capital efficiency (e.g., Goold et al. 1994). This approach to allocating resources can be exemplified by some of the major firms in the construction equipment industry, e.g., Caterpillar, Komatsu, and Volvo CE (Haycraft, 2002). These firms produce excavators, wheel loaders, bulldozers, and many other types of construction equipment at subsidiaries in markets around the world and often use a cross-subsidization strategy to allocate resources to subsidiaries even if they have a lower than average (or even a complete lack of) profitability. This strategy is sometimes motivated by economies of scope as well as a desire to be present in local markets and be seen as a one-stop shop for customers so they will not feel the need to reach out to competitors. While the above represents a notable example, it should be highlighted that resource allocation strategy is

typically independent of most cohort characteristics. As such, resource allocation strategy is empirically observed to vary within for instance industry and country of origin.

The influence of organizational design and the local environment on subsidiary behavior

Headquarter resource allocation strategies are not situated in a vacuum, and the recipient (i.e., the subsidiary) will likely often influence the outcome of the process. Studying the MNC, Ambos et al. (2010) detailed how important it is to understand the concept of subsidiary initiative and how subsidiaries behave within the boundaries of the organization. The competitive context of MNCs is such that in parallel to the external competition with other firms there may be an internal design of an organization that promotes either competition or collaboration. This design, in turn, is closely connected to the corporate strategy of the firm. Specifically, the internal design concerns how structure affects the relationships between subsidiaries in each MNC in the face of scarce resources (e.g., Birkinshaw 2001; Birkinshaw and Fry 1998; Joseph et al. 2018; Phelps and Fuller 2000). Consequently, subsidiaries' predominant behavior towards other units of the MNC, be it headquarters or other subsidiaries, can be either internal competition or internal cooperation.

Bouquet et al. (2009) provided a related argument and explained how the amount of information and the number of subsidiary initiatives continued to increase, but the supply of attention from headquarters is a constrained resource, suggesting that subsidiaries might have to fight for resources allocated by headquarters. The competition between them concerns scarce MNC resources and often the firm's financial assets (Bower 1970; Bower and Gilbert 2005). In order to be slated for headquarter resource allocation efforts, subsidiaries make moves and take initiative. This results in a situation in which different MNC subsidiaries will sometimes compete with each other to be picked as a winner in the resource allocation process (Dutton and Ashford 1993) and cooperate at other times. Since the number of subsidiaries often increases within large MNCs, the importance of showing the potential for results to headquarters continues to increase (Bouquet and Birkinshaw 2008).

Although subsidiaries' predominant behavior towards other units of the MNC can be influenced by corporate strategy, it may also be influenced by the external environment, where local differences in areas such as culture, regulations, or customer preferences often constitute isomorphic pressures that affect the behavior of subsidiaries.

In theorizing about the relationship between headquarter resource allocation strategy and subsidiary behavior on value creation, the MNC context is advantageous (Roth and Kostova 2003). Specifically, we argue that the strong efficiency-seeking effect of a winner-picking strategy and competitive subsidiary behavior is unsustainable in MNCs given that the preferences of customers in different countries, as well as factors such as emission regulations, might temporarily align, but might just as soon drift apart, leaving the specialized firm vulnerable. However, as is the case for all firms, a certain level of efficiency is required to compete with domestic companies. In so doing, this paper uses the MNC context to theorize on "the best MNC strategic response and organizational design" (Roth and Kostova 2003, p. 896). As such, our arguments should be applicable to both the purely domestic multi-business context as well as the international context in which MNCs operate.

Moreover, the heterogeneity of the international environment faced by MNCs consists of a wide variation in terms of culture, regulatory frameworks, and consumer preferences. This area has also been highlighted in received research as being particularly challenging for MNC headquarters to deal with (Mahnke et al. 2012; Menz et al. 2015). In fact, Ambos et al. (2019) found that headquarters' use of control mechanisms is contingent on subsidiary power. In this setting, the MNC can be conceived of as a federative arena where units compete for power and influence (Forsgren et al. 2005). In our reasoning, an important issue arising out of this heterogeneity is that it creates competing pressures on the behavior of subsidiaries and a need to consider such pressures. First, this suggests that headquarters' strategies cannot disregard influences from the external environment (such as the industries or markets it is active in) when considering how to design and allocate resources in the MNC (Sengul et al. 2019). In turn, this means that headquarters cannot simply force alignment between subsidiary behavior and a particular preferred resource allocation strategy. Rather, the resource allocation strategy of headquarters in MNCs might need to be adapted to the behavior of subsidiaries, which is subject to change and variation between subsidiaries if dictated by the external pressures of different markets.

Competitive and cooperative subsidiaries

Internal competition is often seen as an organizational principle in MNCs when it comes to the division of roles and resources (Ambos et al. 2010; Birkinshaw et al. 2005; Gammelgaard 2009). Such internal competition is a head-on struggle between subsidiaries over the limited resources of the MNC. Although the subsidiaries of any MNC could be expected to compete for scarce internal resources, subsidiaries of MNCs that duplicate certain activities have an especially broad potential scope for such competition (Birkinshaw and Lingblad 2005; Kappen 2011). This behavior occurs when the MNC wishes to bring efficiency pressures to bear on subsidiaries, which is believed to reduce slack and promote productivity by allowing competition between subsidiaries.

Competitive subsidiary behavior can be expected in MNCs that design an organizational structure that generally evaluates subsidiaries on a stand-alone basis. This type of organizational structure is common in MNCs that pursue an efficiency-focused corporate strategy where pushing each subsidiary to be as lean as possible is paramount to competitiveness. This type of corporate strategy can be observed in firms where there is minimal relatedness between the subsidiaries and therefore minimal possibilities for reaching synergies (Goold et al. 1994).

Competitive subsidiaries typically strive to be the best among their peers and this is what is expected from the organization at large. The subsidiaries are largely autonomous and the organization drives efficiency by making sure the subsidiaries stay lean and mean by competing against each other. This resembles the constrained delegation design and how competition plays out between units (Sengul and Gimeno 2013). Competitive subsidiary behavior drives focus and a winner-takes-all mentality within the firm, pressuring subsidiaries to perform at their absolute best. However, a potential drawback of this seemingly productive influence is that it makes the subsidiaries channel their efforts into an increasingly narrow focus in order to be the best. This pushes

subsidiaries to be sharp but brittle as the behavior makes them better at their particular activity as they strive to be the best possible investment.

However, if the business landscape starts to change, such focused subsidiaries may not be able to adapt. They will typically not have broad sets of skills and activities, and the organizational slack will long since have been diminished. This subsidiary behavior is characteristic of the Panasonic Corporation (Bartlett 2009), for example, which has a long history of encouraging its subsidiaries around the world to compete directly for internal resources. This competition, which took place across the company and centered on profitability, was an important part of the corporate culture and fostered an environment that had serious consequences for subsidiaries that were repeatedly found to be insufficiently profitable.

In contrast to the competitive organizational design, cooperative subsidiary behavior is expected in MNCs that evaluate their subsidiaries as a group. This type of organizational design is common in MNCs that pursue an effectiveness-focused corporate strategy in which a key to firm competitiveness is encouraging subsidiaries to collaborate, for example, through the diffusion of knowledge (Kogut and Zander 1995). This kind of corporate strategy often emphasizes company synergies and economies of scope and uses collaboration to reach these synergies (Goold et al. 1994).

A cooperative subsidiary cultivates a broad set of skills and is inherently heterogeneous in pursuing several skills and generalizations rather than specializations. That is, the skills of the subsidiary are broad but dull, yet the subsidiary has the resilience needed to weather changes in the market or the industry. As a jack-of-all-trades rather than a specialist, the cooperative subsidiary is replete with exciting, off-book projects and pockets of experimentation at the cost of considerable organizational slack. This breadth of activities and the collaborative relationships to other subsidiaries in the MNC means that the subsidiary risks complacency; therefore, such a subsidiary is not so much on its toes as on its backside.

A typical example of the cooperative subsidiary behavior is Siemens AG, whose telecom switch subsidiaries around the world work on different aspects of new telecom equipment but at the same time rely on each other (Pettigrew et al. 2003). This reliance concerns input related to the subsidiaries' specialties such as market knowledge, deep product expertise, and software prowess. This collaborative behavior melded cost structures where employees of a subsidiary in India spend time working for a subsidiary in Germany or the USA, making comparisons of profitability across subsidiaries appear less important.

Theory development: a complementary fit framework

By drawing on complementary fit logic (Cable and Edwards 2004; Ostroff 2012), it is possible to reconcile and contrast resource allocation strategies and subsidiary behavior into our current understanding of headquarter value creation. Specifically, we allow the traditional organizational structure of internal competition and internal cooperation to vary by polar opposite resource allocation strategies—winner-picking and cross-subsidizing—to better understand what these combinations might yield in terms of value creation for the organization as a whole.

Winner-picking resource allocation strategy and subsidiary behavior

The main advantage of a winner-picking resource allocation strategy can be understood as allocating the major part of resources to the subsidiaries that have proven to be the

strongest achievers when it comes to presenting opportunities for investment (Andersson and Kappen 2010; Khanna and Tice 2001; Nell and Ambos 2013). Therefore, the winner-picking strategy promises the highest possible yield on the invested resources (Table 1).

However, as a consequence of allocating large amounts of resources to only a few subsidiaries, the winner-picking resource allocation strategy also introduces higher levels of uncertainty. If headquarters misjudges either the subsidiaries or the market when picking these winners, the strategy might also introduce the highest possible risk to the MNC portfolio. In sum, winner-picking identifies a few star subsidiaries and then supports these subsidiaries to a considerably higher degree than it does the average performing subsidiaries. This strategy creates a focused allocation of resources that has the potential to yield the highest returns, but only if the assumptions made about the subsidiaries’ potential turn out to be correct. Thus, the winner-picking strategy is a high-risk/high-return resource allocation strategy.

Having explained how a winner-picking resource allocation more specifically shapes the MNC, we will now turn to how a winner-picking resource allocation strategy might influence value creation depending on the chosen organizational design—i.e., competitive or cooperative subsidiary behavior.

Considering a winner-picking strategy coupled with an organizational design that favors competitive subsidiary behavior, we suggest that competitive subsidiary behavior has similar effects to a winner-picking strategy on subsidiaries’ behavior by compounding the high risks associated with each context. Therefore, the combination will make for even more sharply focused subsidiaries that introduce even higher risk to the MNC portfolio. In other words, headquarters are, in practice, betting on a few extremely specialized subsidiaries that, while likely to yield great returns, make the investment subject to both the subsidiary risk of being highly specialized and the headquarters’ risk of putting many eggs in only a few baskets. The subsidiary is already straining itself as far as it can in its competitive environment, and as it becomes subject to an even more harshly competitive environment through winner-picking, the pressure might prove counter-productive and produce an organization with highly specialized, but ultimately frail, subsidiaries.

An illustration of this combination, building on the Philips Corporation example mentioned above (Bartlett 2009), is how it allocates resources disproportionately to the profitable country subsidiaries and where the subsidiaries themselves compete against

Table 1 Framework of headquarter resource allocation strategy and subsidiary behavior

Resource allocation strategy	Competitive or cooperative subsidiary behavior	
	Competitive behavior (+) Intensely competitive (-) Narrow specialization breeds frailty	Cooperative behavior (+) Broad skills, robust profile (-) Not much incentive to perform
Winner-picking (+) Focus on highest performers and return (-) Narrow focus—subject to uncertainty	<i>Competitive and winner-picking</i> Combining these creates an over-focus on specialization and risk-taking, which is argued to be an extreme set-up.	<i>Cooperative and winner-picking</i> The relative complacency and slack characterizing cooperative subsidiaries will be balanced by the winner-picking strategy.
Cross-subsidizing (+) Broad risk spread (-) Little focus on performance and return	<i>Competitive and cross-subsidizing</i> The risk and performance introduced by the competitive subsidiaries is mellowed by the cross-subsidizing, which spreads both risk and performance.	<i>Cooperative and cross-subsidizing</i> The soft steering of the cross-subsidizing strategy is reinforcing the lack of focus and performance of the cooperative subsidiaries.

each other based on profitability. In such a competitive situation scenario, it is easy to imagine how slack resources that could be directed towards more visionary innovation would be sacrificed. However, while this combination could create a particularly lean and efficient Philips Corporation, it would likely also mean that the subsidiary organizations had few resources to devote to experimenting with new products or other offerings as focusing on such potentially risky activities would put subsidiaries at a disadvantage in the context of the winner-picking resource allocation strategy.

Meanwhile, a winner-picking resource allocation strategy would force a comparably complacent cooperative subsidiary to introduce ambition into its low-risk operations. In this context, considerable slack might exist in relation to activities that lie between subsidiaries (i.e., where one subsidiary performs activities for another) as the costs might not be borne by the other subsidiary. In such a scenario, the winner-picking strategy might make such slack visible as both subsidiaries in this example make an account of their own cost and revenue drivers. Although the winner-picking strategy might force the cooperative subsidiary to focus more on its own performance, headquarters can temper the high-risk/high-reward profile of its resource allocation strategy by applying it to a portfolio of subsidiaries that are low-risk/low-reward to begin with. The likely result will be a more efficient group of subsidiaries that might not yield the highest returns but will also not be at the highest risk of allocation mistakes or industry change.

Imagining how this might play out in the cooperative subsidiary organization of Siemens AG (Pettigrew et al. 2003), we can expect that a winner-picking resource allocation strategy on behalf of headquarters would incentivize the otherwise friendly subsidiaries in different countries to make an inventory of their costs. For example, if the bearing of costs remains disorganized for several years in a cooperative climate, we could expect the cost control to become lax and a build-up of slack and inefficiency. A headquarter winner-picking resource allocation strategy would incentivize subsidiaries to identify such slack as well as to negotiate more vigorously with each other, leading them to apportion costs more correctly. The outcome of such a combination can be expected to be a more balanced organization with regard to both subsidiary and headquarter resource allocation risk.

Taken together, combining the winner-picking resource allocation strategy with either a competitive or cooperative subsidiary behavior suggests that when it comes to complementary fit between headquarter strategy and subsidiary behavior, we can propose the following proposition:

Proposition 1: A competitive (cooperative) subsidiary behavior will weaken (strengthen) the positive effect of a winner-picking resource allocation strategy on value creation.

Cross-subsidizing resource allocation strategy and subsidiary behavior

The main advantage of the cross-subsidizing resource allocation strategy is that it spreads the risks evenly across all the subsidiaries of the MNC. Consequently, cross-subsidization can be considered a resource allocation strategy that minimizes risk by avoiding the misallocation of resources on the part of headquarters (betting on the

wrong horse) since funding all subsidiaries is betting on none. However, a potential drawback of the cross-subsidizing resource allocation strategy is the minimization of returns. Since subsidiaries receive resources on the premise of equality, relatively weak subsidiaries will receive a disproportionate amount of resources compared to stronger subsidiaries.

In sum, cross-subsidizing largely disregards potential performance and aims to support all subsidiaries, albeit to a lower extent due to resource constraints. This creates a widely dispersed allocation of MNC resources that are likely to yield modest returns. Although modest, the returns are likely to be stable as no particular predictions need to be realized for the return to materialize and there is little uncertainty involved in the allocation. Thus, the cross-subsidizing strategy is a low-risk/low-reward kind of resource allocation approach. Having specified how a cross-subsidizing resource allocation strategy more specifically affects the MNC, we now turn to how cross-subsidizing fits with a competitive or cooperative behavior in subsidiaries.

While a good match to a cross-subsidizing resource allocation strategy might appear to be a cooperative subsidiary behavior, we argue that this is misleading. As discussed previously, a cooperative subsidiary is characterized by a broad portfolio of skills and innovativeness allowed by organizational slack. This kind of behavior does not generally suggest high profitability, but spreads risks broadly. This would suggest that a cross-subsidizing resource allocation strategy combined with a cooperative subsidiary behavior would reinforce the strengths and, crucially, weaknesses of both.

Such a scenario can be illustrated using the construction equipment industry, which is characterized by cross-subsidizing resource allocation strategies (Haycraft 2002). Having cooperative subsidiaries would suggest that the strategy not only allows the weaker subsidiaries to stay in business but also encourages them to stay weak (or at least does not encourage them to become stronger/more competitive) by the cooperative relationships between the subsidiaries in different countries. Thus, the weaker subsidiaries would not be incentivized to catch up with their stronger sister subsidiaries, either by the dynamics between subsidiaries (cooperative) or by MNC headquarter resource allocation strategy (cross-subsidization), resulting in a comparatively inefficient company.

The combination of a cross-subsidizing resource allocation strategy and a competitive subsidiary behavior could result in the competitive subsidiary behavior being allowed a resource allocation context that is more conducive to experimentation and shooting for the stars as it is more forgiving of mistakes, while the cross-subsidizing resource allocation strategy is not very encouraging. This would suggest an additional acceptance of failure that might provide the competitive subsidiary with much appreciated freedom to innovate and experiment to meet requirements in the local market.

In a scenario where competitive subsidiaries are subjected to a cross-subsidizing resource allocation strategy, the drive to reduce slack and increase specialization of the subsidiaries would be blunted by the relative indifference of headquarters to their profit or loss. This de-emphasis on profits as the measure of subsidiary performance would allow for the build-up of a certain amount of slack in the subsidiaries, which might encourage innovation, cooperation, and broadening of capabilities driven by local market pressure. Again, using some of the major firms in the construction equipment industry as an example, this could be illustrated by the subsidiaries that, by virtue of their

competitive behavior, guard their own profit and loss statements by closely tracking revenues and costs. The combination of competitiveness among subsidiaries and cross-subsidization on behalf of headquarters would keep subsidiaries lean and efficient while allowing the relative losers to stay in business due to the resource allocation strategy used. Consequently, we suggest the following proposition:

Proposition 2: A competitive (cooperative) subsidiary behavior will strengthen (weaken) the positive effect of a cross-subsidizing resource allocation strategy on value creation.

Discussion

Headquarter resource allocation as a question of complementary fit

Contrasting the aforementioned headquarter resource allocation strategies and subsidiary behavior, Table 2 shows how the relative complementary fit between strategy and subsidiary behavior influence resource allocation and ultimately value creation. The literature has provided little elaboration on how different headquarter resource allocation strategies might complement subsidiary behavior as well as on what the potential impact of such a complementary fit might be on value creation. The notion of complementary fit is important as headquarter resource allocation strategies might only work as intended given certain subsidiary behaviors. This reasoning goes a long way to offering an explanation for why headquarter resource allocation is challenging and highlights that the way in which the MNC is designed is important for the outcomes of the resource allocation process. Thus, the framework we propose has implications for the success or failure of the hierarchy and how headquarters is an important player from an organizational design perspective when thinking about conflicting interests and the dispersion of power within the MNC as elaborated on by Foss (2019).

Viewing competition as an organizational principle that is linked to the strategies and competitiveness of the overall MNC echoes the reasoning of Nadler and Tushman (1980), who essentially saw competition and the MNC as a congruence system in which the parts affect each other and therefore need to be congruent if problems are to be avoided.

The term complementary fit, as used in this paper, refers to the interaction between two organizational components (Muchinsky and Monahan 1987; Nadler and Tushman 1980). A relevant example of such an interaction is between an organization's tasks and its abilities to perform those tasks. In order for an organization to function properly, its components must exist in a state of relative balance. A lack of balance between interfacing components will lead to dysfunction. The term complementary fit is used to emphasize how different components of the receiving organization interface with how headquarters attempt to create value through resource allocation.

Table 2 A summary of the combined effects of headquarter resource allocation strategy and subsidiary behavior on value creation as postulated in propositions 1 and 2

	Competitive subsidiary behavior	Cooperative subsidiary behavior
Winner-picking resource allocation strategy	<i>Weakened effect on value creation</i>	<i>Strengthened effect on value creation</i>
Cross-subsidizing resource allocation strategy	<i>Strengthened effect on value creation</i>	<i>Weakened effect on value creation</i>

Table 2 provides a framework for thinking about headquarter resource allocation as taking place in an overall system that needs to harmonize in order to facilitate value creation within the MNC. Drawing on the work of Nadler and Tushman (1980), headquarter resource allocation would therefore be viewed through the lens of congruence systems. This would imply explaining variation in resulting value creation by capturing specific issues of correspondence, or complementary fit, between headquarter resource allocation strategy and the behavior of the receivers as a system. The main premise of such a congruence model is that in order for any organization to function effectively, there must be consistency—i.e., congruence—between its sub-components.

To achieve congruence, the sub-components need a high level of complementary fit with each other. Examples of complementary fit and sub-components are the resource allocation strategies pursued by headquarters and how these strategies and the behavior of the MNC subsidiaries complement each other. As a whole, therefore, a congruence model displays a relatively high or low level of congruence as a consequence of the complementary fit between the underlying components, which in this paper is between headquarter resource allocation strategy and the behavior of MNC's subsidiaries.

While the central argument in this paper has rested on the notion of a single, easily identifiable headquarters unit at the apex of the firm, recent evidence suggests more complex headquarter structures (e.g., Kunisch et al. 2019; Nell et al. 2017) where a subsidiary's behavior is asserted in nested control function systems (Sengul and Gimeno 2013). If we relaxed our definition to allow for these more complex headquarter structures, which is probably closer to actual headquarter designs of the large MNC but complicates the complementary fit argument, it is likely that the outcome of our model would remain.

In fact, the increased complexity of hierarchy and the push and pull of additional units of headquarters would make it even more difficult for the subsidiary to align with corporate strategy as yet another layer of heterogeneity is introduced (Decretton et al. 2017). This resonates with the idea of the M-form organization and a division of labor between organizational entities as a design parameter. This represents contingency solutions on how to organize the MNC where complexity drives the structure of the headquarter design, and where there is an organizational abandonment of single headquarter solutions and the organization is deliberately designed to consist of multiple headquarters (Ciabuschi et al. 2012; Kunisch et al. 2019). Nevertheless, these multiple headquarters operate under the M-form logic with a division of labor and our resource allocation framework is applicable to this line of thinking.

While this paper theorizes about value creation through resource allocation in light of certain strategies and subsidiary behavior, it does so while not considering reallocation strategies across the temporal dimension. The influence of such intertemporal economies of scope (e.g., Helfat and Eisenhardt, 2004; Lieberman et al. 2017; Sakhartov and Folta 2015) constitutes an interesting avenue for future research as it would relax the time-invariant perspective and therefore effectively introduce dynamics into the analytical framework. Potentially, this would allow for further theorizing on the resource allocation process and its influence on performance.

Concluding remarks

Based on the above discussion, we can elucidate how the complementarity between the resource allocation strategy pursued by headquarters and the behavior of subsidiaries in MNCs together might influence value creation positively or negatively. Specifically, in cases where the resource allocation strategy reinforces what are essentially weak points in the subsidiaries' behavior (e.g., a winner-picking strategy and competitive subsidiary behavior), value creation is expected to suffer. Conversely, if the resource-allocation strategy pursued by headquarters complements the behavior of MNC's subsidiaries in terms of helping to better balance the strong and weak points of their behavior (e.g., a winner-picking strategy and cooperative subsidiary behavior), value creation is expected to be enhanced.

As shown in earlier studies, headquarters-subsidiary relationships can be conceived of as mixed motive dyads (Cuervo-Cazurra et al. 2019; Garcia-Pont et al. 2009; Tieying et al. 2009; Tippmann et al. 2018). In such a setting, the MNC resembles a federation in which power struggles and goal conflicts are the norm rather the exception (Ciabuschi et al. 2011; Ciabuschi et al. 2012; Egelhoff et al. 2013; Pahl and Roth 1993). As a corollary, the power and influence of headquarters can be circumvented by subsidiaries that actively pursue their own agenda; Nell and Ambos 2013). However, the degree of independence subsidiaries have vis-à-vis headquarters has a bearing on the analytical power of our model. One limitation of our work is that our model builds on relaxing the assumption that subsidiaries behave in close alignment with guidelines from headquarters. In a nutshell, the more subsidiary independence is constrained, the less applicable our complementary fit theory becomes.

The complimentary fit theory suggests that beyond discussions of the various merits of different resource allocation strategies in isolation (cf. Khanna and Tice 2001; Scharfstein and Stein 2000; Stein 1997), research on headquarter resource allocation in relation to value creation must also take into account the behavior or characteristics of the receiving side (i.e., the subsidiaries). We hope that future research might be inspired by the line of reasoning presented in this paper and will attempt to extend this inquiry further by empirically testing the propositions it puts forth. While this would be particularly interesting, we recognize that the challenges of finding suitable data impose certain limitations.

Abbreviation

MNC: Multinational corporation

Acknowledgements

Not applicable.

Authors' contributions

The authors have worked together in face-to-face meetings to develop the ideas in this paper. The work is thus a completely collective effort by the authors. All authors read and approved the final version of the manuscript.

Funding

PK would like to acknowledge the financial support from Handelsbankens Forskningsstiftelser. This funding body has had no role in the design of the study or in the collection, analysis, or interpretation of data. Nor has the funding body had a role in writing the manuscript.

Availability of data and materials

Data sharing was not applicable to this article as no datasets were generated or analyzed during the current study.

Competing interests

The authors declare that they have no competing interests.

Received: 1 November 2018 Accepted: 17 February 2020

Published online: 03 April 2020

References

- Ambos B, Kunisch S, Leicht-Deobald U, Steinberg AS (2019) Unravelling agency relations inside the MNC: the roles of socialization, goal conflicts and second principals in headquarters-subsidiary relationships. *J World Bus* 54(2):67–81
- Ambos TC, Andersson U, Birkinshaw J (2010) What are the consequences of initiative-taking in multinational subsidiaries? *J Int Bus Stud* 41(7):1099–1118
- Andersson U, Forsgren M, Holm U (2007) Balancing subsidiary influence in the federative MNC: a business network view. *J Int Bus Stud* 38(5):802–818
- Andersson U, Kappen P (2010) Headquarters' potential value-adding by cherry-picking sub-unit technology development projects. In: Andersson U, Holm U (eds) *Managing the contemporary multinational: the role of headquarters* (pp. 160–181). Edward Elgar Publishing: Northampton
- Arrfelt M, Wiseman RM, McNamara G, Hult GTM (2015) Examining a key corporate role: the influence of capital allocation competency on business unit performance. *Strateg Manag J* 36(7):1017–1034
- Bartlett CA, Ghoshal S (1986) Tap your subsidiaries for global reach. *Harv Bus Rev* 64(6):87–94
- Bartlett, Christopher A. "Phillips versus Matsushita: The Competitive Battle Continues." Harvard Business School Case 910–410, December 2009.
- Birkinshaw J (2001) Strategies for managing internal competition. *Calif Manag Rev* 44(1):24–38
- Birkinshaw J, Braunerhjelm P, Holm U, Terjesen S (2006) Why do some multinational corporations relocate their headquarters overseas? *Strateg Manag J* 27(7):681–700
- Birkinshaw J, Fry N (1998) Subsidiary initiatives to develop new markets. *Sloan Manag Rev* 39(3):51–61
- Birkinshaw J, Hood N (1998) Multinational subsidiary evolution: capability and charter change in foreign-owned subsidiary companies. *Acad Manag Rev* 23(4):773–795
- Birkinshaw J, Hood N, Young S (2005) Subsidiary entrepreneurship, internal and external competitive forces, and subsidiary performance. *Int Bus Rev* 14(2):227–248
- Birkinshaw J, Lingblad M (2005) Intrafirm competition and charter evolution in the multibusiness firm. *Organ Sci* 16(6):674–686
- Blomkvist K, Kappen P, Zander I (2017) Gone are the creatures of yesteryear? On the diffusion of technological capabilities in the 'modern' MNC. *J World Bus* 52(1):1–16
- Bouquet C, Birkinshaw J (2008) Weight versus voice: how foreign subsidiaries gain attention from corporate headquarters. *Acad Manag J* 51(3):577–601
- Bouquet C, Morrison A, Birkinshaw J (2009) International attention and multinational enterprise performance. *J Int Bus Stud* 40(1):108–131
- Bower JL (1970) *Managing the resource allocation process*. Irwin, Homewood
- Bower JL, Gilbert CG (2005) *From resource allocation to strategy*. Oxford University Press, Oxford
- Cable DM, Edwards JR (2004) Complementary and supplementary fit: a theoretical and empirical integration. *J Appl Psychol* 89(5):822
- Chandler A (1962) *Strategy and structure: chapters in the history of the industrial enterprise*. Massachusetts Institute of Technology Press, Cambridge
- Chandler A (1991) The function of the HQ unit in the multibusiness firm. *Strateg Manag J* 12(5):31–50
- Ciabuschii F, Dellestrand H, Holm U (2012) The role of headquarters in the contemporary MNC. *J Int Manag* 18(3):213–223
- Ciabuschii F, Forsgren M, Martín Martín O (2011) Rationality vs ignorance: The role of MNE headquarters in subsidiaries' innovation processes. *J Int Bus Stud* 42(7):958–970
- Ciabuschii F, Forsgren M, Martín Martín O (2017) Value creation at the subsidiary level: testing the MNC headquarters parenting advantage logic. *Long Range Plan* 50(1):48–62
- Collis D, Young D, Goold M (2007) The size, structure, and performance of corporate headquarters. *Strateg Manag J* 28(4):383–405
- Cuervo-Cazurra A, Mudambi R, Pedersen T (2019) Subsidiary power: loaned or owned? The lenses of agency theory and resource dependence theory. *Glob Strateg J* 9:491–501
- Decreton B, Dellestrand H, Kappen P, Nell PC (2017) Beyond simple configurations: the dual involvement of divisional and corporate headquarters in subsidiary innovation activities in multibusiness firms. *Manag Int Rev* 57(6):855–878
- Dellestrand H, Kappen P (2012) The effects of spatial and contextual factors on headquarters resource allocation to MNE subsidiaries. *J Int Bus Stud* 43(3):219–243
- Donaldson G (1984) *Managing corporate wealth*. Praeger Publishers, New York
- Dutton JE, Ashford SJ (1993) Selling issues to top management. *Acad Manag Rev* 18(3):397–428
- Egelhoff WG, Wolf J, Adzic M (2013) Designing matrix structures to fit MNC strategy. *Glob Strateg J* 3(3):205–226
- Folta TB, Helfat CE, Karim S (2016). Examining resource redeployment in multi-business firms. *Resource Redevelopment and Corporate Strategy*. *Advances in Strategic Management* 35:1–17
- Forsgren M, Holm U, Johanson J (2005) *Managing the embedded multinational*. Edward Elgar Publishing, Cheltenham
- Foss NJ (2019) The corporate headquarters in organization design theory: an organizational economics perspective. *J Organization Design* 8(1):8
- Gammelgaard J (2009) Issue selling and bargaining power in intrafirm competition: the differentiating impact of the subsidiary management composition. *Competition Change* 13(3):214–228
- Garcia-Pont C, Canales JI, Noboa F (2009) Subsidiary strategy: the embeddedness component. *J Manag Stud* 46(2):182–214
- Goold M, Campbell A, Alexander M (1994) *Corporate-level strategy: creating value in the multibusiness company*. John Wiley, New York
- Haycraft WR (2002) *Yellow steel: the story of the earthmoving equipment industry*. University of Illinois Press: Urbana
- Hedlund G (1986) The hypermodern MNC - a heterarchy? *Hum Resour Manag* 25(1):9–35
- Helfat CE, Eisenhardt KM (2004) Inter-temporal economies of scope, organizational modularity, and the dynamics of diversification. *Strateg Manag J* 25(13):1217–1232

- Joseph J, Baumann O, Burton R, Srikanth K (2018). Reviewing, revisiting, and renewing the foundations of organization design, organization design (advances in strategic management) (pp. 1–23). Emerald Publishing Limited, New York
- Kappen P (2011) Competence-creating overlaps and subsidiary technological evolution in the multinational corporation. *Res Policy* 40(5):673–686
- Khanna N, Tice S (2001) The bright side of internal capital markets. *J Financ* 56(4):1489–1528
- Kogut B, Zander U (1995) Knowledge, market failure and the multinational enterprise: a reply. *J Int Bus Stud* 26(2):417–426
- Kostova T, Marano V, Tallman S (2016) Headquarters–subsidiary relationships in MNCs: fifty years of evolving research. *J World Bus* 51(1):176–184
- Kunisch S, Menz M, Birkinshaw J (2019) Spatially dispersed corporate headquarters: a historical analysis of their prevalence, antecedents, and consequences. *Int Bus Rev* 28(1):148–161
- Lamont O (1997) Cash flow and investment: evidence from internal capital markets. *J Financ* 52(1):83–109
- Lawrence PR, Lorsch JW (1967) Differentiation and integration in complex organizations. *Adm Sci Q* 12(1):1–47
- Levinthal DA, Wu B (2010) Opportunity costs and non-scale free capabilities: profit maximization, corporate scope, and profit margins. *Strateg Manag J* 31(7):780–801
- Lieberman MB, Lee GK, Folta TB (2017) Entry, exit, and the potential for resource redeployment. *Strateg Manag J* 38(3):526–544
- Mahnke V, Ambos B, Nell PC, Hobdari B (2012) How do regional headquarters influence corporate decisions in networked MNCs? *J Int Manag* 18(3):293–301
- Menz M, Kunisch S, Collis DJ (2015) The corporate headquarters in the contemporary corporation: advancing a multimarket firm perspective. *Acad Manag Ann* 9(1):633–714
- Muchinsky PM, Monahan CJ (1987) What is person-environment congruence? Supplementary versus complementary models of fit. *J Vocat Behav* 31(3):268–277
- Nadler DA, Tushman MLA (1980) Model for diagnosing organizational behavior. *Organ Dyn* 9(2):35–51
- Nell PC, Ambos B (2013) Parenting advantage in the MNC: An embeddedness perspective on the value added by headquarters. *Strateg Manag J* 34(9):1086–1103
- Nell PC, Kappen P, Laamanen T (2017) Reconceptualising hierarchies: the disaggregation and dispersion of headquarters in multinational corporations. *J Manag Stud* 54(8):1121–1143
- Nohria N, Ghoshal S (1994) Differentiated fit and shared values: alternatives for managing headquarters–subsidiary relations. *Strateg Manag J* 15(6):491–502
- Ostroff C (2012) Person–environment fit in organizational settings. *Oxford Handbook Organizational Psychol* 1:373
- Ozbas O, Scharfstein DS (2009) Evidence on the dark side of internal capital markets. *Rev Financ Stud* 23(2):581–599
- Pahl JM, Roth K (1993) Managing the headquarters–foreign subsidiary relationship: the roles of strategy, conflict, and integration. *Int J Confl Manag* 4(2):139–165
- Penrose ET (1959) *The theory of the growth of the firm*. Basil Blackwell, Oxford
- Pettigrew AM, Whittington R, Melin L, Sanchez-Runde C, Van den Bosch FA, Ruigrok W, Numagami T (Eds.). (2003) *Innovative forms of organizing: international perspectives*. Sage: London
- Phelps NA, Fuller C (2000) Multinationals, intracorporate competition, and regional development. *Econ Geogr* 76(3):224–243
- Puranam P, Vanneste BS (2016) *Corporate strategy: tools for analysis and decision-making*. Cambridge University Press, Cambridge
- Roth K, Kostova T (2003) The use of the multinational corporation as a research context. *J Manag* 29(6):883–902
- Sakharov AV, Folta TB (2015) Getting beyond relatedness as a driver of corporate value. *Strateg Manag J* 36(13):1939–1959
- Scharfstein DS (1998). *The dark side of internal capital markets II: Evidence from diversified conglomerates* (no. w6352). National Bureau of Economic Research: Cambridge
- Scharfstein DS, Stein JC (2000) The dark side of internal capital markets: divisional rent-seeking and inefficient investment. *J Financ* 55(6):2537–2564
- Sengul M, Costa AA, Gimeno J (2019) The allocation of capital within firms. *Acad Manag Ann* 13(1):43–83
- Sengul M, Gimeno J (2013) Constrained delegation: limiting subsidiaries' decision rights and resources in firms that compete across multiple industries. *Adm Sci Q* 58(3):420–471
- Shin H-H, Stulz RM (1998) Are internal capital markets efficient? *Q J Econ* 113(2):531–552
- Simon H (1957) *Administrative behavior*, 2nd edn. Free Press, New York
- Stein JC (1997) Internal capital markets and the competition for corporate resources. *J Financ* 52(1):111–133
- Stein JC (2002) Information production and capital allocation: decentralized versus hierarchical firms. *J Financ* 57(5):1891–1921
- Tieying Y, Subramaniam M, Cannella AA Jr (2009) Rivalry deterrence in international markets: contingencies governing the mutual forbearance hypothesis. *Acad Manag J* 52(1):127–147
- Tippmann E, Scott PS, Reilly M, O'Brien D (2018) Subsidiary cooptation competence: navigating subsidiary evolution in the multinational corporation. *J World Bus* 53(4):540–554
- Williamson O (1975) *Markets and hierarchies: analysis and antitrust implications*. The Free Press, New York
- Xuan Y (2009) Empire-building or bridge-building? Evidence from new CEOs' internal capital allocation decisions. *Rev Financ Stud* 22(12):4919–4948

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.