

# **Paradoxical tensions at multiple levels and top management team cross-level bridging in coopetition: A conceptual model**

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## **Abstract**

In contrast to the conventional strategic management research, emphasizing either cooperation or competition as a beneficial strategy, the emerging literature on coopetition has advanced our knowledge of how the pursuit of both cooperation and competition could potentially lead to greater benefits. However, the literature offers scarce insights into the multi-level dynamics of coopetition and the role of TMT in addressing paradoxical tensions cascaded across levels, that, if not tackled well, can overturn the benefits associated with coopetition. Using key insights from the paradox literature, this paper develops a conceptual model that suggests how the coopetition paradox unfolds at different levels within the organization, activating performing, organizing, and belonging tensions, that, in turn, affect the dynamics of the interplay between cooperation and competition at the inter-firm level. Specifically, the model contributes by foregrounding TMT's cross-level bridging role (i.e., uniform navigation within and among relationships at the interorganizational level through efficient orchestration of internal processes at organizational levels).

## INTRODUCTION

In contrast to the conventional streams of research in strategic management, emphasizing either cooperation or competition, the emerging, cooptition research underscores the pursuit of simultaneous cooperation and competition between firms (Bengtsson & Kock, 2000; Brandenburger& Nalebuff, 1996). The rationale behind putting forward such a novel approach was to understand how the combination of both cooperation and competition may generate a ‘coopetitive’ advantage and thus superior, long-run performance (Lado et al., 1997; Padula&Dagnino, 2007). However, research findings also indicate that most coopetitive endeavors struggle to achieve the desired outcomes and often result in premature dissolution (Das & Teng, 2000).

One of the major reasons behind the high failure rates is that the paradoxical nature of coopetition – i.e., cooperation and competition are contradictory yet interrelated demands (Raza-Ullah et al., 2014) – and the interplay between cooperation and competition (Arslan, 2018; Dyer et al., 2018; Gnyawali&Charleton, 2018; Hoffmann et al., 2018) trigger paradoxical tensions at multiple levels, which in turn affect the interplay and balance in the coopetitive relationship. In order to inhibit the development of a vicious cycle, scholars have proposed mechanisms such as trust and distrust (Raza-Ullah, 2021; Raza-Ullah & Kostis, 2020) and strategies such as separation and integration strategies (Fernandez et al., 2014), and the development of a coopetition capability (Bengtsson et al., 2016). Although the top management team (TMT) plays a crucial role in developing such mechanisms and strategies, the extant research, except few attempts (e.g., Bengtsson et al, 2020) has largely overlooked TMT’s role in the coopetition context.

Specifically, as paradoxical tensions transpire both at the inter-firm level (e.g., value tension and knowledge tension) and at the intra-firm level (e.g., organizing tension and

belonging tension - see e.g., Lewis, 2000), we need more knowledge about how TMTs bridge across these levels such that a virtuous cycle is created that helps balance the relationship, thus resulting in superior value creation. To exemplify how tensions transpire at different levels, we refer to what a senior manager in a large telecom organization pointed out: “In the engineering area when you get down to the technology issues, then all gates can disappear. So, the most dangerous thing you could do is to put two engineers [from competitor-partner firms] together. Anything can happen... They dig into the technology and they identify with it all times of the month.” (Raza-Ullah, 2021: 90). In this case, the focal firm’s engineers were experiencing a belonging tension because, apparently, it became difficult for them to realize whether they were representing their own firm and its interests or identifying more with the engineers of the competitor firm. This belonging tension created problems for the focal firm since the engineers got more inclined to use competitor firm’s components instead of developing their own unique components that were intended to give their firm a competitive advantage. The resultant misalignment between what the TMT intended (i.e., building their own unique components for gaining a competitive edge) and engineers' behaviour negatively affected the balance in the cooperative relationship. Thus, the TMT must ensure that the belonging tension at lower levels must not detriment the overall value creation at the inter-firm level.

Although the role of TMT in developing organizational capabilities in the context of competition has been emphasized in the previous research (Bengtsson et al., 2020), the knowledge about how TMT bridges across inter- and intra- organizational levels, such that individuals and units may respond uniformly and consistently to paradoxical tensions (Smith 2014) triggered by the competition paradox is scarce. Without such bridging, there would be a higher level of discrepancy between the realized strategy and the intended strategy of TMT (Hambrick, 1981; Mintzberg, 1978). We, therefore, need a better understanding of how the TMT tackles paradoxical tensions at different levels within the organization to support

(circumvent) the development of a virtuous (vicious) cycle - that is, by balancing the contradictory yet interrelated interactions between firms to get the best out of coopetition.

To address this critical gap, we develop a conceptual framework that suggests how several internal tensions—performing, organizing, learning, and belonging—arise, and how TMT’s responses to these tensions can generate a virtuous or a vicious cycle that differentially affects the interplay between cooperation and competition and thus eventually change the dynamics of the coopetition paradox. We suggest that a TMT has to embrace the performing tension, and execute two major, intertwined roles at multiple levels: (i) navigating within and among interorganizational interactions by developing alternative strategies, changing the scope and content of relationships, and thus sustaining balance in the relationship, and (ii) orchestrating (through separation and integration as well as through sense-giving and sense-taking at organizational levels) to enable uniform responses to the paradoxical tensions experienced at multiple levels. Through navigating and orchestrating, TMT can pursue the crucial cross-level bridging in paradoxical competitive contexts. Our framework contributes by shedding light on the multilevel nature of coopetition with TMT at the center.

## **COOPERATION–COMPETITION PARADOX AT THE INTER- ORGANIZATIONAL LEVEL**

Coopetition – the simultaneous competition and cooperation between and among firms – is a potentially rewarding strategy (Bengtsson & Kock, 2000; Brandenburger & Nalebuff, 1996; Dowling et al., 1996; Lado et al., 1997). It offers benefits attached to both cooperation and competition, thereby leading to a potential ‘coopetitive advantage’ (Padula & Dagnino, 2007). Through cooperation, firms pool complementary knowledge, resources, and capabilities (Das & Teng, 2000; Diestre & Rajagopalan, 2012) to undertake large-scale, resource-intensive, and risky projects (Dyer & Singh, 1998) and thus generate collaborative advantage.

Through competition, firms constantly strive to gain a competitive edge and superiority over others. Frequent and aggressive action and response dynamics enable firms to gain efficiency and to become more innovative (Chen & MacMillan, 1992; Chen & Miller, 1994; Young, Smith, Grimm, & Simon, 2000). Indeed, some empirical studies show that co-competition strategy brings superior benefits. For example, Quintana-Garcia and Benavides-Velasco (2004) found that simultaneous cooperation and competition (i.e., co-competition strategy) fosters greater innovation benefits than either cooperation or competition strategy alone. Likewise, Lado et al. (1997) argue that firms can achieve superior gains when cooperation and competition are both kept at higher levels.

### **The co-competition paradox**

Despite the potential ‘co-competitive advantage’ benefits, the co-competition strategy is not always fruitful, and very often fails to achieve the intended objectives (Bouncken & Kraus, 2013; Park & Russo, 1996; Ritala & Sainio, 2014). One main reason for increased failure rates is that co-competition is a paradoxical phenomenon (Chen, 2008; Bengtsson & Raza-Ullah, 2017), and stems multiple tensions at different levels (Raza-Ullah, 2020; Raza-Ullah et al., 2014;). Managing such tensions requires the special attention of TMT for the organization’s success (Bengtsson et al., 2020). Their rhetoric, strategic decisions, and related actions shape the organizational context (Jarzabkowski, 2008), influence middle-managers (Floyd & Lane, 2000), and direct employees to take certain actions in response to tensions. Doing so has consequences for the realized strategy that ultimately impacts co-competition and firm performance. Yet the critical role of TMT in managing strategic paradoxes and the resultant tension remains under research (Smith, 2014).

A paradox is defined as “contradictory yet interrelated elements (dualities) that exist simultaneously and persist over time” (Smith & Lewis, 2011: 387). This definition highlights

three core characteristics: contradiction, interrelatedness, and persistence. Clearly, the elements of cooperation and competition are contradictory in nature: Whereas cooperation stresses common benefits, collective interests, and goodwill, competition subscribes to private benefits, opportunistic behavior, and zero-sum game (Das & Teng, 2000; Khanna, Gulati, & Nohria, 1998). Inherent in the cooperation paradox are several other contradictions that become salient when firms cooperate and compete. For example, consider knowledge sharing and knowledge protection (Yang et al., 2014). On the one hand, cooperation requires firms to share knowledge, skills, and resources with one another in order to meet the intended goals. On the other hand, firms need to protect their sensitive knowledge at the same time since they are interacting with close rivals. Any leakage of core knowledge is likely to cause damage to the focal firm's competitive advantage. This is because competitors have the capability to absorb and exploit the leaked knowledge to their own benefit outside the scope of the alliance (Arslan, 2018).

Trust-distrust is another such inherent contradiction. Cooperation implies trusting competitor partners, without which no exchange with the partner may take place. Yet, on the contrary, distrusting and monitoring partners' behavior, so that they behave as expected, is also critical (Kostis et al., 2021; Raza-Ullah, 2021). Notice also common benefits versus private benefits (Khanna et al., 1998). The aim of the whole cooperative endeavor is to produce something that is beneficial to the two or more parties (i.e., common benefits). However, each partner also attempts to maximize its private gains – learning faster from the partner to outcompete others in the market. As a result of such contradictions and tensions at the inter-organizational level, the pursuit of cooperation becomes a major challenge for individuals at all levels involved in either cooperation or competition or both. To exemplify, individuals that mainly collaborate with the competitor may be tempted to ignore competition in order to avoid experiencing paradoxical tensions and to keep away from conflicts with other units of their firm. However, such either/or focus tends to be destructive for joint value creation. For

instance, the lack of understanding of the competition intensity with the partner might lead to detrimental knowledge leakage by those that mainly focus on cooperation. Therefore, it is crucial that TMT creates an organizational context that helps middle-managers and lower-level employees to handle tensions and avoid such destructive behaviour.

In fact, it is the interrelatedness between the forces of cooperation and competition (the second characteristic of the paradox) that makes coopetition beneficial – that is, a focus on both/and dynamics, which facilitate value creation (Lado et al., 1997). Yet, creating both/and dynamics is very challenging not only because the contradictions still persist (the third characteristic of the paradox) but also because coopetition triggers multiple paradoxical tensions within the organizations (Raza-Ullah et al., 2014). Despite the fact that TMTs constantly face the challenges of creating and strengthening the both/and dynamics as well as constraining the development of the either/or dynamics, the current literature offers very limited insights into the nature of triggered paradoxical tensions at the organizational level and the TMT's role in effectively handling internal tension to be able to sustain the coopetition paradox at the inter-organizational level. Below, we first discuss the either/or and both/and dynamics followed by the discussion on the paradoxical tensions occurring at the organizational level. Then, in the next section, we present our conceptual model and suggest how TMT does the cross-level bridging – that is, by orchestrating the organizational tensions, which makes it possible to navigate within and among coopetition relationships such that the both/and dynamics are created and maintained over time for beneficial results.

## **The challenge of balancing cooperation–competition: Either/Or versus Both/And dynamics**

A general consensus in current debates is that the either/or and both/and dynamics (leading to negative and positive results respectively) occur because of the interplay between the

cooperation–competition forces at the inter-organizational level. The idea behind such dynamics is that of balancing, which is required for a sustained relationship. Balancing refers to the extent to which cooperation and competition are present at similarly intense levels. At these levels, both forces tend to reinforce the positive sides of each other while constraining the negative sides. Unbalancing occurs when either cooperation is negatively constrained by competition or vice versa – e.g., competition largely dominating cooperation or vice versa (Bengtsson, Eriksson, & Wincent, 2010; Luo, 2007) - eventually leading to premature dissolution of relationships. Whereas balancing creates both/and, virtuous dynamics that result in value creation, unbalancing generates either/or, vicious dynamics that lead to value destruction (e.g., Gnyawali & Charleton, 2018; Park, Srivastava, & Gnyawali, 2014; Raza-Ullah, 2021). Naturally, TMT’s role in balancing and sustaining the relationship becomes crucial here. Yet, the extant literature fails to provide adequate insights into the role of the TMT on this issue. Below, we discuss the interplay of cooperation and competition to illustrate the either/or and both/and dynamics.

**Table 1. Either/or versus Both/and dynamics**

	<i>Either/Or Dynamics</i>	<i>Both/And Dynamics</i>
<b>Competition</b>	1. Augments negatives of cooperation Reduces the willingness to share knowledge and resources which make joint value creation difficult	1. Augments positives of cooperation Resources developed in competition spill over and are used for joint value creation.
<b>Competition</b>	2. Constrains positives of cooperation Increases the risk for opportunistic behavior and misappropriation of jointly created value.	2. Constrains negatives of cooperation Reduces relational inertia, risk for lock-in, and resource redundancy
<b>Cooperation</b>	3. Augments negatives of competition Absorption of the partner's knowledge can stimulate the red queen competition.	3. Augments positives of competition Increased absorptive capacity enables the development of competitive advantages



<b>Cooperation</b>	4. Constraints positives of competition Investments and commitment can lead to lock-in effects that reduce the search for new opportunities.	4. Constraints negatives of competition Make it possible to avoid red queen competition and learning races
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**Either/or dynamics:** We suggest four ways in which the opposing forces of competition and cooperation can negatively augment or constrain each other (Table 1, 1<sup>st</sup> column), thus unbalancing the two forces through such interplay. First, competition can constrain the positive side of cooperation if, for example, one partner acts opportunistically and misappropriates the jointly created value. Although the mutuality in cooperation fosters self-enforcing safeguards that deter opportunism (Gnyawali&Charleton, 2018; Cao &Lumineau, 2015; Mellewigt et al., 2017), the high pressures to win the competitive red queen races tempt partners to act opportunistically. The racing hinders firms to search for new opportunities that can help them succeed, and such very intense rivalry, thereby, becomes negative for all firms involved. As a result, competition may destroy the value creation processes that come through cooperation. Second, vice versa, cooperation can augment the negatives of competition. Given that competitors’ knowledge bases largely overlap, their capacity to absorb each other’s knowledge is likely to be very strong (Hamel, 1991). As “such absorption is particularly a threat when the knowledge that resides within the two partnering firms draws on overlapping knowledge domains” (Dyer et al., 2018: 3150), it likely escalates competition and stimulates firms to engage in red queen races.

Third, competition can augment the negatives of cooperation. Fierce competitors are often overprotective and hesitant to share the needed knowledge due to the potential opportunistic threats and value appropriation concerns (Park &Ungson, 2001). Thus, the reluctance to share knowledge and leverage each other’s resources puts cooperation in jeopardy. Fourth, cooperation can constrain the positive side of competition. Resource

commitments in cooperation can reduce a firm's flexibility in the sense that its investments get tied within a single relationship. As a result, the resources needed to search for and build new partnerships in order to establish individual superiority and competitive edge over others are not sufficiently available (Gnyawali&Charleton 2018). This cooperation–competition interplay tends to be vicious in nature since they generate either cooperation or competition dynamics, which hurt the very essence of coopetition, and thus contribute toward the failure of coopetition relationships.

**Both/and dynamics:** On the contrary, cooperation and competition can also positively influence each other (Table 1; 2<sup>nd</sup> column) such that both/and dynamics emerge. First, competition can augment cooperation when knowledge and capabilities developed in order to pursue individual superiority spill over and are used to reach reciprocal cooperative goals. Second, competition can also constrain the negatives of cooperation. The continuous striving to explore new opportunities and innovate would inhibit the development of relational inertia and complacency within the relationship, and further reduce the risk that partners' resources converge and become redundant (Dyer et al., 2018). Third, cooperation can augment the positives of competition. For example, the common understanding developed through cooperation increases partners' absorptive capacity and their ability to utilize external knowledge for developing private knowledge and capabilities that can further be used in competition (Hoffmann et al., 2018). Fourth, cooperation can also constrain the negative side of competition since cooperation provides an alternative way to cut extreme levels of intense rivalry (Ang, 2008) and competitive 'red queen races' that would otherwise never stop.

Easier said than done, generating both/and dynamics is a huge challenge for the TMT. Although TMT might seek to maximize the positives of both strategies simultaneously, they also need to make clear and consistent decisions on resource allocation to different units and provide guidance to the lower-level employees (Smith, 2014). On this basis, the TMT must

engage in continual orchestration of actions and interactions among units and individuals within the firm to enable them to respond effectively to the paradoxical tensions. Doing so would make it possible for the whole organization to synchronically navigate the cooperation interactions consistently such that cooperation and competition remain balanced and maintained overtime at the inter-organizational level. Before presenting our theoretical model explaining the TMT cross-bridging role, we briefly discuss the paradoxical tensions that might emerge within the organization at different levels.

## **PARADOXICAL TENSIONS AT MULTIPLE LEVELS WITHIN THE ORGANIZATION**

Although the literature acknowledges that cooperation is a multilevel phenomenon that spills tensions at different levels within the organization (Raza-Ullah et al., 2014; Fernandez et al. 2014), our understanding of internal paradoxical tensions and how they affect the balancing of cooperation and competition is still limited. We believe that key insights from the paradox literature can help build an understanding of such tensions (Jarzabkowski, Le, & Van de Ven, 2013; Lewis, 2000; Smith & Lewis, 2011) and the internal complexities and dynamics that directly or indirectly impact firm's actions vis a vis their competitor-partners. Thus, we intend to provide additional insights into the balancing of contradicting forces in cooperation and consequently sustaining it.

*First*, the paradox literature reveals the complex and nested nature of multiple paradoxical tensions in organizations (Andriopoulos & Lewis, 2009; Lüscher & Lewis, 2008; Sheep, Fairhurst, & Khazanchi, 2017). In particular, four types of tensions are identified: organizing, performing, belonging, and learning tensions. The organizing tension that mostly occurs at the firm level refers to the organization of paradoxes via differentiation and integration systems (Lawrence & Lorsch, 1967), for example, by separating competing

demands among different units while integrating them at the top level. The performing tension that exists at the individual-level (often experienced by TMT) is about working with a host of simultaneous, competing demands such as stakeholders' divergent perspectives on organizational success (Smith & Lewis, 2011), which require actors to perform multifaceted, conflicting, and ambivalent roles (Lüscher & Lewis, 2008). The belonging tension (at a group level) relates to values and beliefs of identifying with one's own group or unit versus others (Lewis, 2000). Learning tension is about building on the past but destroying it simultaneously to create the future (Lewis, 2000; Smith & Lewis, 2011). These tensions are simultaneously present, intertwined, and affect one another.

*Second*, these paradoxical tensions may cascade across levels as their manifestation at one level creates challenges at other levels within the organization (Smith & Lewis, 2011). For example, Jarzabkowski et al. (2013) examine how a telecommunications firm dealt with the paradox between regulatory and market demands (i.e., organizing tension) and how this paradox influenced the performing and belonging tensions for managers. Moreover, Andriopoulos and Lewis (2009) show how one underpinning paradox (i.e., the innovation paradox) spurred multiple other tensions within the organization. Although the coopetition research offers rudimentary insights into its multi-level nature, it still lacks an understanding of how the above-mentioned tensions arise and are effectively managed by TMT at different levels within the organization.

*Third*, the paradox literature also provides insights into how organizational actors respond to these tensions, giving rise to vicious and virtuous cycles. A vicious cycle is generated when the response is defensive—either avoiding the tension or tipping toward one pole (i.e., one-side focus) in order to obtain cognitive and behavioral consistency (Smith & Lewis, 2011). Such polarized responses, however, hurt sustainable performance. Although, choosing one over the other may reduce emotional anxiety and aid short-term performance, yet

accepting and working with both competing demands tend to reinforce a virtuous cycle (Lewis, 2000). The virtuous cycle, in turn, fosters energizing spirits, creativity, and enables resilience and superior, long-term success.

## **TMT'S CROSS-LEVEL BRIDGING ROLE**

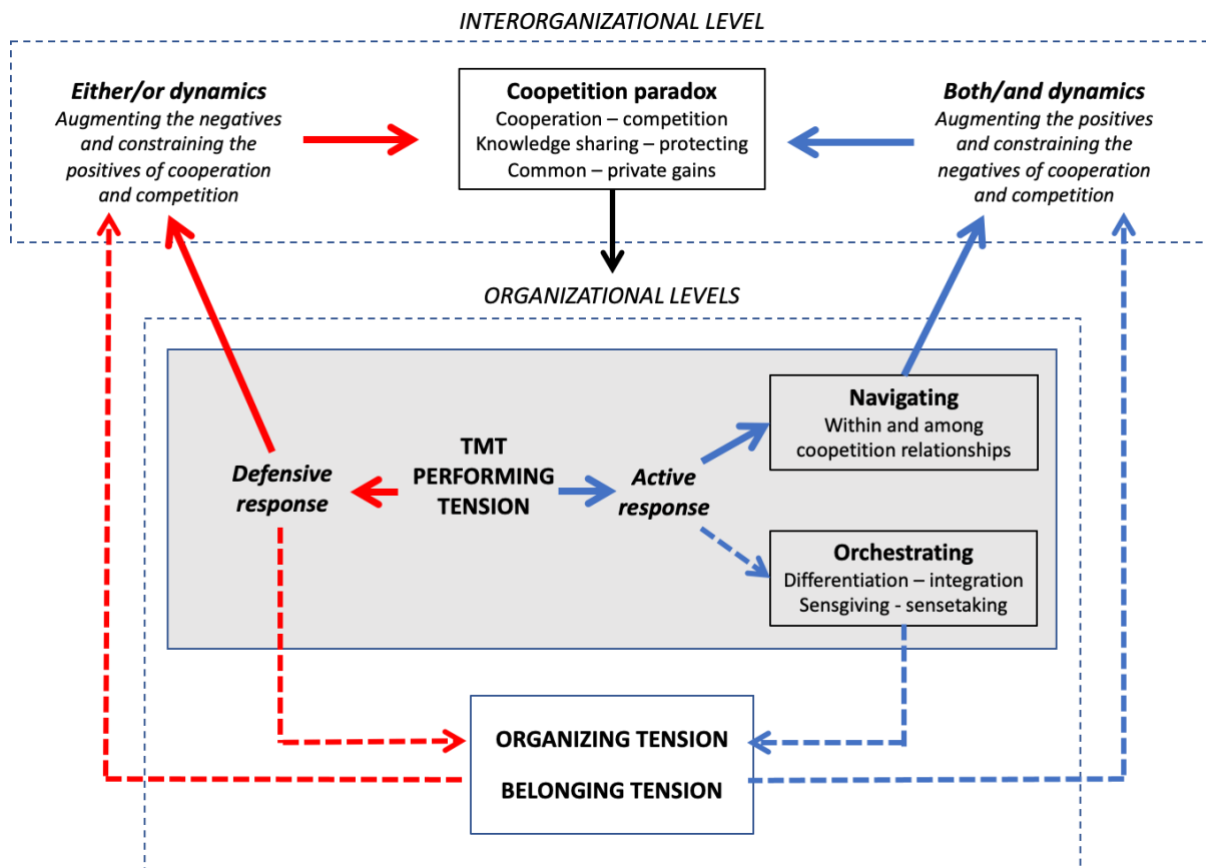
### **The Conceptual Model**

We develop a conceptual model that illustrates TMT's role in managing paradoxical tensions across interorganizational and organizational levels and eventually balancing and sustaining the cooperation paradox. Figure 1 shows how the cooperation paradox and inherent tensions at the interorganizational level cascades down an organization, creating performing, organizing, and belonging tensions at the organizational level (black arrow in the Figure).<sup>1</sup>The Figure also shows that TMT plays a critical role in shaping the organization's responses to the resultant tensions both directly, through strategic decisions regarding the interaction with their competitive partners (solid red and blue arrows in the Figure), and indirectly, through the organizing of structures and processes within the organization to make it easier to deal with the organizing and belonging tensions (red and blue dotted lines in the Figure). Accordingly, TMT must play a cross-bridging role due to their intermediate position facing multiple competing demands both at the interorganizational and organizational levels. The resultant performing tensions experienced by the TMT, and particularly TMT's reactions to this tension, become critical in augmenting the positives and/or constraining the negatives of cooperation and competition, that in turn, affects the balancing dynamics of the cooperation paradox

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<sup>1</sup>Jarzabkowski et al. (2013: 248) suggest that "paradoxes of learning will be difficult to observe in isolation" and thus excluded learning tension from their process model of how managers respond to paradoxical tensions. In line with these authors, we only focus on performing, belonging, and organizing tensions.

If the TMT reacts to the performing tensions in a defensive manner – i.e., by focusing on one side of contradictory demands – it will trigger a vicious cycle (illustrated by solid and dotted red arrows) of either/or dynamics, which would likely disturb the balancing dynamics of the cooperation paradox. However, if the TMT has an active response, it can both navigate the cooperative interactions at the interorganizational level and orchestrate the internal processes, so that the tensions are understood within the organization. The orchestration of internal processes is a prerequisite for efficient navigation, as it enables units and individuals within the organization to deal with the organizing and belonging tensions, and uniformly support the navigation. For example, if the TMT is not able to, through their orchestration, support simultaneous differentiation and integration as well as sense-giving and sense-taking across the entire organization, it may not be possible for units and individuals at different levels to uniformly navigate cooperative interactions with those of similar-others from the partnering firm, and a vicious cycle would occur. On the contrary, if the TMT is able to orchestrate the structures and processes within the organization, a virtuous cycle would occur. This is because the whole organization is synchronized via TMT navigation and orchestration, which eventually help in balancing the cooperation-competition interplay at the inter-firm level (illustrated by dotted and solid blue arrows), thus resulting in a sustained relation and better performance. Below, we unpack the TMT's role in dealing with the performing, organizing, and belonging tensions in detail below.



**Figure 1. A conceptual model of the cross-level bridging role of TMT**

### **TMT’s Defensive or Active Response to Performing Tensions**

Although the performing tension can be experienced by several individuals within the firm, it is, in the coopetition context, experienced by top managers the most, as they must bridge across interorganizational and organizational levels. At the interorganizational level, the TMT needs to perform multiple, competing tasks in its interaction with the competitor partner and counterbalance the potential negative consequences of the different contradictory elements and demands to successfully execute the coopetition strategy. We explicate the performing tension by exemplifying the competing demand of knowledge sharing and knowledge protecting in interactions with competitors. Sharing knowledge is essential since, without it, the goals cannot be achieved. However, managers are also concerned with knowledge leakage, whether intentional or unintentional, as it could lead to the potential loss of competitive advantage

(Raza-Ullah & Eriksson, 2017; Ritala et al., 2015). Therefore, sensitive knowledge must be protected from potential leakage. This takes us to the internal aspects of the performing tension: If protection of sensitive knowledge is not given the necessary managerial care within the firm, employees at lower levels may unintentionally leak some knowledge while intensely cooperating with their counterparts (c.f. belonging tension). This might affect the interplay and create an imbalance in cooperation, as cooperation will likely be reduced or marginalized when a firm realizes that its technology has leaked to its competitor-partner. On the contrary, if knowledge sharing becomes too limited due to intense competition, it may also lead to diminishing returns from the relationship. Thus, the TMT has to make special efforts to prevent the negative consequences of cooperation on competition or vice versa.

Accordingly, TMT plays a critical role as a bridge between external and internal tensions with efforts to stimulate a virtuous cycle and avoid a vicious cycle that can affect the balance between cooperation and competition. However, attending to both sharing and protecting, and assuring that the whole organization acts accordingly increases the cognitive and emotional loads for managers, as their cognitions (and emotions) may clash, pushing them in opposite directions (Raza-Ullah et al., 2020). Managers may struggle and ask: how can our firm both share and protect knowledge? Often, it may not be known in advance what knowledge can be shared and what cannot be shared (Jarvenpaa & Majchrzak, 2016). Furthermore, it might be difficult to know what knowledge is leaking through lower-level interactions with the partner. The complexity can result in cognitive and emotional tensions, in which managers feel torn between their opposing cognitions, and conflicting emotions may cause extreme levels of pressure, discomfort, and frustration (Raza-Ullah, 2020).

Under such conditions, TMT can become defensive in responding to external tensions or fail to understand that although multiple demands triggered by cooperation are contradictory and difficult to handle, yet are interrelated and therefore must be valued equally. They can also



become passive in their orchestration of actions and interactions within the organization, lacking complete information about what is going on in the multiple interfaces between their own firm and the partner. In order to attain consistency, harmony, and order in their thoughts (Festinger, 1957), managers may tip toward one competing demand and prioritize that more than the other to avoid the performance tension. Their internal prioritizations might also become focused on that demand. They may even fail to value the other competing demand and ultimately the need for taking measures to align the organization and its employees with that demand. A vicious cycle may spur as a result of such defensive responses to performing tensions, thus hampering managers' decision-making ability and purposeful action.

The fundamental to minimizing the vicious cycle and generating a virtuous cycle is to respond in an active and mindful way despite being potentially torn between contradictory logic. Doing so requires a TMT with a paradox mindset—the extent to which a TMT is accepting of and energized by tensions—thus allowing managers to accept, value, and feel energized (Miron-Spektor et al., 2017) even when experiencing high performing tensions. Through TMT diversity and constructive dialogues within the TMT, managers can develop such a mindset and an organizational-level cooperation capability, which in turn, would help embrace and attend to both internal and external tensions (Bengtsson et al., 2016). The development of cooperation capability is a multilevel process. Managers with deep-level diversity attributes build specialized skill sets and capabilities related to specific aspects of either cooperation or competition, or for certain units or functional areas that are mainly working with one of the demands. Through attention and allocation dynamics, such capabilities develop “into a portfolio of specialized capabilities [within the TMT] that... are integrated into a cooperation-specific set of capabilities helpful in managing and balancing cooperation” (Bengtsson et al. 2020, p14). Such dynamics are likely to lead to TMT behavioral integration that increases ambidextrous orientation (Lubatkin et al., 2006), and makes it easier to embrace

contradicting agendas both externally and internally, thus allowing managers to find linkages between contradictions and discover synergies between them. Thus, instead of becoming indecisive as a result of facing tensions, an active response allows managers to become more creative and make better decisions (Bengtsson & Raza-Ullah, 2017) and to accurately navigate within and between coopetition relationships, as well as orchestrate what's happening within the organization with coopetition in mind. This is further discussed below, starting with the internal orchestration that is a prerequisite for a uniform and synchronized navigation for balancing and thus sustaining the coopetition paradox.

### **TMT's Orchestration in Dealing with the Organizing Tension**

Firms attempt to organize the coopetition paradox via mobilizing their differentiation (or separation) and integration systems. Doing so triggers organizing tension at the intra-organizational level (e.g., at the unit level). An organization is said to “consist of discrete, hierarchically arranged subsystems, spurring spatial tensions between subsystems or between subsystems and the overall system (Cyert& March, 1963). While each subsystem can operate independently, the success of the overall system depends on their interdependence” (Lewis and Smith, 2011 p. 384). When contradictory agendas of cooperation and competition are exposed to such complex systems, orchestration is needed to address the resultant organizing tensions. Through orchestration, both differentiation—allowing the organization to excel in each agenda separately—and integration—enabling the organization to tap into the synergies of both agendas—are put into place simultaneously. However, separation and integration also have their drawbacks that the TMT needs not only to be aware of but also be capable of managing effectively.

Separation of opposing activities allows units to exclusively focus on one agenda, thus preventing the tensions that may arise by pursuing both cooperation and competition. This

enables them to specialize and excel in their respective domains, for example, to compete in specific markets, or to jointly create specific technologies through cooperation with other firms. Separation thus brings efficiency and productivity (Lawrence & Lorsch, 1967). Cooperation and competition can often be separated between existing units/departments within an organization, but this is not always possible. For example, the division between standardized products and complex system integration within a fiber-optic firm did not allow separating cooperation and competition between units. The system integration unit focused mainly on cooperation but also became involved in the competition as powerful customers urged them to cooperate with their partners' competitors in some projects (Kostis, Bengtsson & Näsholm, 2021). As a result, such competition reduced knowledge sharing and brought suspiciousness and distance into the collaboration, spurring vicious cycles (as competition tended to constrain cooperation).

Even when the separation between units is possible, it also has drawbacks in terms of sub-optimization, inter-unit conflicts, and a lack of understanding of how cooperation can augment the positives and constrain the negatives of competition and vice versa. For example, in the Lining industry, Raza-Ullah et al (2014) found that Skega Ltd. divided its R&D activities between a unit responsible for material development (that cooperated closely with the competitor) and a unit responsible for product development (that focused mainly on competition). The rationale behind this was that each unit could excel in one of the competing agendas without feeling push and pull from the other. However, from the perspective of TMT, separation also caused problems as the sharing of important knowledge and insights between units (that could have been fruitful for the operations within each unit) was hindered. Consequently, the likelihood of creating synergies from cooperation was reduced. In the material development unit, employees were hesitant to share knowledge and information with the product development unit (that could have helped product development), as they believed

that it could hurt their open and close collaboration with the competitor. Similarly, managers in the product development unit were reluctant to share their knowledge and insights with the material development unit because they were afraid of unintended knowledge leakages to the competitor (via material development unit's collaboration), thereby destroying potential competitive advantages. In both examples, a vicious cycle developed - in the first case due to the lack of separation and in the second case due to separation.

TMT, thus, needs to address such negative consequences by imposing complementary systems and processes that can compensate for the lack of separation or for its drawbacks. Integration across units is one way to compensate for the drawbacks of separation and can be achieved through different means such as by using parallel structures. The formal primary unit structure of an organization can be complemented with an additional secondary and often more temporal structure of projects and cross-functional teams dealing with current or upcoming issues (Raisch & Birkinshaw, 2008). Such sub-units can be extended to the interorganizational level if these units consist of actors from both competing firms. As a result, tensions and contradictions related to cooperation may become more salient and nested with the internal organizing tension. For example, firms within the IT telecom industry often have secondary subunits that work with standard settings. A study of firms involved in 3GPP standard-setting (Bengtsson, Eriksson & Johansson, 2014) shows how representatives from a smaller group of firms joined forces and suggested new standards at regular standard-setting meetings and continuously negotiated on how to deal with modifications suggested by other members of the standard-setting throughout the meeting. Each firm, at the same time, instantly communicated with its firm's standard groups consisting of representatives from different units within the firm. Consequently, they were able to calibrate the suggestions that were developed and modified in collaboration with competitors to their own firm's competitive roadmap for the future. The integration obtained through the standard-setting sub-units made it possible to integrate and

balance both cooperative and competitive concerns and, at the same time, deal with the drawbacks of separation and the organizing tensions within their own firm. Such integration spurs a virtuous cycle that makes balancing of value-creation and value appropriation, as well as knowledge sharing and knowledge protection possible by knotting these tensions with the organizing tension that emerged within the firm.

Another way to both enable separation (if the traditional unit structure cannot be used to separate cooperation and competition) and achieve integration of the two interactions is to organize different activities into projects in parallel to the hierarchical structure of the organization. Projects were for example used by the TMT within the fiber-optics firm (described earlier) to separate cooperation from the competition. The temporality of projects can however lead to ‘organizational amnesia’ as the focus on deadlines leaves little time to reflect on how knowledge developed within the project can be used as a competitive advantage in subsequent projects (Grabner, 2004). Orchestrating by the use of multiple simultaneous projects can provide integration to overcome such amnesia. A study of project-based system integration within the robotic industry (Kostis et al. 2021), for example, noted that although the engineers and managers needed to rely on their partners and trust them in single projects (as they were dependent on their knowledge and resources for developing tailor-made systems), they at the same time were watchful and distrusting as they competed in other parallel projects because they knew that the knowledge developed could be used for competition in these projects. That enabled them to keep some distance from the partner, thereby minimizing the resultant relational inertia concerns. Knowing that partners in one project could use the knowledge developed in other projects with other partners made them alert, searching for opportunities to leverage the knowledge for their own possible gains (in parallel or future projects).

Separation or lack of separation can, based on the above, lead to vicious cycles that make the cooperation paradox unbalanced with consequences for the dynamic interplay in the future. Through orchestration, TMT can compensate for the lack of separation such that stability, clarity, focus, and efficiency can be reached. Integration via subunits or parallel projects helps to deal with issues that need dual concerns and makes dynamic, flexible, and agile outcomes possible (e.g., Eisenhardt & Martin, 2000; Teece & Pisano, 1994). When both separation and integration are done properly, a virtuous cycle is created, which enables firms to understand the importance of excelling at both cooperation and competition through separation, but at the same time integrating, coordinating, and aligning the separated units with the overarching organizational goals. This links to the second role of TMT affecting not only the organizing tension but also the belonging tension inherent in organizations.

### **TMT's Orchestration in Dealing with the Belonging Tension**

The orchestrating of TMT at the organizational level includes sense-giving to and sense-taking from lower levels so that the belonging tensions can be managed appropriately and important information from what happens on lower levels can be used when navigating on the interorganizational level. First, individuals on lower levels in an organization might experience belonging tensions as a result of multiple identifications (Ashforth and Johnson, 2001). They can both have higher-order identities that, for example, accentuate the status and the positive distinctiveness of their own organization relative to others (Hogg and Terry, 2000) and lower order identities, as individuals identify with members of a specific unit or workgroup (Ashforth and Johnson, 2001). Higher-level identities are relatively abstract and inclusive, while lower-order identities are more concrete and exclusive, and therefore more immediately impact individual behavior. Research has suggested that the identification with inter-organizational teams is strengthened when members are co-located (Rockmann et al. 2007). Such

identifications can increase trust and knowledge sharing between the units and employees of competing organizations (Tsai, 2002, Näsholm& Bengtsson, 2014). Therefore, it may become especially risky when lower-level identities become distinctly different from other lower-level identities more oriented towards competition, as well as from the higher-level organization identity. For example, Soekijad and Andriessen (2003) found that those involved in cooperation with competitors did not view the other firms as 'real' competitors, as a result of which cooperation increased at the expense of competition. However, this may be consequential, as reduced safeguarding (due to high trust) could lead to unintentional knowledge leakages.

Employees, especially engineers, can get immersed in technology to such an extent that they may forget about the fact that they are sharing knowledge with a competitor (Raza-Ullah, 2021). Their professional identity tends to override their organizational identity, thus resulting in the potential leakage of important knowledge and technology (Näsholm& Bengtsson, 2014). A lack of attention from TMT on identity issues therefore may spur a vicious cycle as the lower-level individuals may only focus on one pole of cooperation paradox (e.g., undue trust, too much closeness, and unprotected knowledge sharing). This, in the longrun, would destroy cooperation due to knowledge stealth, thereby creating unbalance (competition-dominated cooperation) in the relationship. On the contrary, individuals identifying heavily with a competitive identity might focus more on the opposite pole of the paradox (i.e, high distrust, too distant, and overprotective), thus compromising cooperation, and eventually unbalancing the cooperation paradox (Raza-Ullah, 2021).

Sense-giving from the top is the key here in creating a virtuous cycle. TMT needs to make the cooperation paradox salient at the lower levels to an extent that they must understand the value and consequences of cooperating with competitors. As paradoxes can be constructed cognitively and socially (Smith & Lewis, 2011), individuals can make sense of them if they

can receive constellations of contextual cues from TMT. Regarding this, inculcating ‘interpretive contexts’ is found to be very useful (Knight & Paroutis, 2017), which refers to “the repeated and converging combinations of cues that are created by leaders to direct attention to particular issues that motivate sensemaking by lower-level managers” (p.406). Such cues are formed through TMT practices, which become diffused and institutionalized within the organization (Harmon et al., 2015). When members make sense of the paradox, they will likely consider and give equal importance to both poles of the cooperation paradox. Doing so would also enable them to understand how their different identities may encompass each other (Ashforth and Mael, 1989), thus helping them to understand, consider, and adjust to the simultaneous demands of both cooperation and competition. This in turn would spur a virtuous cycle, as individuals within units and different projects can then be able to both trust and distrust, and thus share knowledge that is needed for cooperation while protecting sensitive knowledge that provides their firm a competitive advantage over others.

Second, TMT’s sense-taking, which refers to the interpretation of meanings or evaluation of the sensemaking narratives (Huemer, 2012) of lower-level employees by the TMT. Sense-taking serves two main purposes. First, sense-taking ensures TMT that their sense-giving has been taken. TMT interprets and evaluates whether all concerned stakeholders (units, functions, teams, or individuals) appreciate both the contradiction and the interrelatedness between poles. In other words, the paradox needs to become salient to them so that a virtuous cycle can be generated at all levels within the organization.

Second sense-taking provides TMT with information like whether lower-level employees have understood certain decisions made at the TMT level. There can be situations in which units and lower-level employees may question, disagree, and even resist TMT’s decisions. For example, it came as a sheer surprise to employees in the product development unit in Ericsson when they heard that Ericsson had let its best partner - Sun Microsystems - be acquired by



Oracle, which was one of Ericsson's biggest competitors (Bengtsson et al., 2016). TMT was not aware in the beginning that too much closeness with Sun blinded those employees, making it difficult for them to see Sun as their competitor.

Sense-taking also makes TMT more informed about how the interactions at different levels are unfolding, which is important for simultaneous cooperation and competition. Via feedback channels, the internal stakeholders can provide important knowledge and information to the TMT, that may be used for TMT's navigation at the inter-firm level. For example, at the interorganizational level, the TMT may change the scope and content of the relationship in response to the internal feedback. For such reasons, it is critical to have bottom-up feedback processes, so that TMT can take appropriate and timely actions to address sensitive issues.

### **TMT's Synchronized Navigation Across Levels**

If TMT can manage the orchestration discussed above, it is also possible for them to navigate the organization within and among cooperative relationships on the interorganizational level in a uniform and synchronized manner. Cooperation includes both the direct interaction with one specific partner and other direct or indirect interactions with multiple partners that change over time. TMT in this context must configure and reconfigure these interactions (Bengtsson & Raza-Ullah, 2016), taking into account what happens within the overall network or ecosystem that they are part of. First, dyadic cooperative relationships are multifaceted as the partners can play multiple and conflicting roles in relation to one another and these roles are continuously changing. In a study of Ericsson's cooperation with other firms, the head of operations at Ericsson for example describes this multifaceted nature as follows: "It requires a lot from the organization when it is always changing, changing, changing. One day we are the customer, next day we are competitors, partners, or the supplier" (Johansson, 2012, p. 26). In addition, the firm's involvement in many parallel and future collaborations exacerbated in

project-based industries (Dietrich, Eskerod, Dalcher, & Sandhawalia, 2010) makes cooperation even more complex and challenging.

Accordingly, firms need to configure and reconfigure their relationships with one another to balance cooperation and competition (Bengtsson & Johansson, 2014; Pathak et al., 2014), and the TMT needs specific capabilities to deal with such complexities at the interorganizational level (Bengtsson et al., 2020). They need to develop cognitive complexity (Denison et al., 1995), enabling them to make accurate decisions about when and why they should engage in cooperation and competition and with whom. They also need to develop alternative strategies or behavioral repertoires both to manage changes in the relationships and to respond appropriately to actions taken by a specific partner or other firms (Denison et al., 1995; Eisenhardt, 2000) to be able to balance contradicting demands related to cooperation and competition (Gibson & Birkinshaw, 2004). This includes the ability to manage content and the scope of specific relationships (Mom et al., 2009) with competitors. Navigation at the interorganizational level, however, is not something that TMT can do independently of units and actors within the organization. Different units need to take the responsibility for interactions in the role of a supplier, competitor, and partner that the manager of Eriksson was referring to. Besides having the cooperation capability to foresee and analyze the contradictions inherent in the cooperation paradox on the interorganizational level and make decisions about how to interact with other organizations accordingly, the TMT orchestration is also critical. The orchestration to deal with the organizing tension makes it possible for different units both to excel for example when cooperating with a partner in a specific project, but at the same time be ready to modify or terminate that relationship to avoid the negatives of cooperation or the risks related to competition. TMT orchestration to deal with the belonging tension is also important as employees that for example are actively involved in collaboration and the sharing of knowledge in some projects need to understand the risks involved when cooperating with a

competitor. Accordingly, navigating at the interorganizational level will not be successful without orchestrating. Processes and actions within the entire organization must be orchestrated so that the entire company can contribute effectively and cohesively to the navigation at the inter-organizational level, which highlights the importance of the TMT's cross-level bridging role.

## **Conclusion**

Current research on cooperation has yet to account for the role of TMT in addressing paradoxical tensions generated by the cooperation paradox at multiple levels within a firm. Such tensions, in turn, have consequences for the interplay and balancing of cooperation and competition at the inter-firm level. Although the literature emphasizes the importance of balancing cooperation and competition in the relationship, yet largely overlooks the types of paradoxical tensions and how TMT's responses to tensions help or hurt the cooperation-competition balancing.

We contribute by developing a conceptual model that unpacks how the cooperation paradox (at the inter-organizational level) cascades down the organization and creates performing, belonging, and organizing tensions at multiple levels. We suggest that on the one hand, TMT's defensive response to tensions creates a vicious cycle that eventually destroys the balance, but on other hand, an active TMT response generates a virtuous cycle, which creates and maintains balance in the relationship. We elucidate the role of TMT at inter-organizational, organizational, and across levels and further theorize how TMT may inhibit the emergence of a vicious cycle while help facilitate the emergence of a virtuous cycle at the intra-organizational level.

More specifically, we suggest how TMT, through orchestration, shapes organizational structures and processes that help managers and employees on different levels to uniformly navigate through belonging, organizing, and performing tensions. Doing so puts new demands on the TMT. Previous research on coopetition and paradox has stressed the importance of understanding how tensions on multiple levels are linked to one another (Putnam et al., 2016, Schad et al., 2016; Fernandez et al., 2014; Raza-Ullah et al., 2016), but lacks an in-depth exploration of how such linkages are developed. There are a few exceptions. For example, Gümüşay et al., (2020) show how elastic hybridity through the making and taking of space enables integration between incompatible institutional logics, and Kreiner et al., (2015) highlight the role of identity work in bridging social and individual identities. Such contributions are, however, still scarce and we contribute to this avenue of research by elaborating on the linkages between inter- and intra- organizational levels and the central role of TMT. However, further research is needed along these lines.

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