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TOP MANAGEMENT TEAMS IN INTERNATIONAL BUSINESS RESEARCH: A REVIEW AND SUGGESTIONS FOR FUTURE RESEARCH

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TOP MANAGEMENT TEAMS IN INTERNATIONAL BUSINESS RESEARCH: A REVIEW AND SUGGESTIONS FOR FUTURE RESEARCH

Abstract

This article reviews and critically assesses the large and diverse literature on top management teams (TMTs) that has focused on international business (IB) issues. We apply an organizing framework that centers around four key elements of TMTs – TMT composition, structure, processes, and governance – and the most commonly studied IB-related choices and outcomes. This framework allows us to synthesize the contributions of the literature on TMTs in IB and identify opportunities for future research. The contributions of our review are threefold. First, we offer a roadmap for navigating the large and diverse literature on TMTs in IB. Second, we provide a systematic and critical evaluation of the key empirical and theoretical developments in this literature. Third, we highlight opportunities for future research to make theoretical and empirical advancements in each of the areas of our organizing framework. In these future research opportunities, we draw particular attention to the need to further contextualize TMT research in IB by proposing opportunities to more systematically incorporate the unique nature of the MNE and the external environment in which the MNE operates.

INTRODUCTION

Following Hambrick and Mason's (1984) seminal piece on the collective influence of top management teams (TMTs) on firms' strategic decisions and performance, research on TMTs has flourished, and upper echelons theory (UET) has become one of the most influential perspectives in the strategic management literature (Neely, Lovelace, Cowen, & Hiller, 2020). Consequently, the impact of TMTs on a wide variety of strategic decisions and outcomes has been extensively studied (for an overview see Bromiley & Rau, 2016; Carpenter, Geletkanycz, & Sanders, 2004).

The influence of Hambrick and Mason's (1984) work has transcended the vast literature in strategy into the international business (IB) literature, leading to a considerable body of work that focuses on international issues related to TMTs. To take some examples, IB research has generated insights into TMTs' influence on firms' internationalization processes (e.g., Barkema & Shvyrkov, 2007; Herrmann & Datta, 2005), entry mode choices (e.g., Nielsen & Nielsen, 2011), and the outcomes of their IB-related strategic choices (e.g., Carpenter & Sanders, 2004). In addition, IB scholars have also examined how international factors, such as the firm's degree of internationalization, in turn influence certain elements of TMTs (e.g., Athanassiou & Nigh, 2000; Greve, Nielsen, & Ruigrok, 2009).

Research on TMTs in IB has grown sharply in recent years, both in volume and diversity, reaching a stage that warrants taking stock of what we know and identifying areas that remain relatively unexplored. There are several reviews of the literature on TMTs (e.g., Bromiley & Rau, 2016; Carpenter et al., 2004; Neely et al., 2020; Simsek, Heavey, & Fox, 2018). However, these reviews, in line with their focus, look at the literature on TMTs in general and refer to IB issues only in passing (e.g., Carpenter et al., 2004), or examine specific aspects of TMTs, such as executive cognition or the CEO-TMT interface, in a way that does not systematically review topics in IB research (e.g., Georgakakis, Heyden, Oehmichen, & Ekanayake, 2019; Wang, Holmes Jr., Oh, & Zhu, 2016). Hence, a review that focusses specifically on the role of TMTs in IB research is warranted, not only by the importance and relevance of IB for practice, but also by the complexity and unique issues that emerge in studying cross-cultural and international matters. Accordingly, we conduct a systematic review of the literature on TMTs in IB using an organizing framework that builds on the taxonomy of TMTs put forth by Hambrick (1994).

Our contributions are threefold. First, we provide a roadmap for navigating the large and diverse

literature on TMTs in IB, by consolidating and organizing extant knowledge using our organizing framework. Second, we offer a systematic and critical evaluation of the key empirical and theoretical developments in this literature. This allows us to assess the progress made across these studies and to identify limitations and gaps in our knowledge. Third, we provide a number of conceptual and empirical avenues for future work.

Our review is structured as follows. First, we set out the scope of our review by providing an overview of how prior research has conceptualized TMTs. We then discuss our review methodology and develop an organizing framework, which is built around the taxonomy put forth by Hambrick (1994). Subsequently, we use this organizing framework to take stock of the literature. We conclude by discussing directions for future research that systematically cover each of the areas in our organizing framework.

CONCEPTUALIZATION OF TMT

A frequent starting point to conceptualize TMTs is Cyert and March's (1963) seminal work, specifically their notion of the "dominant coalition," which refers to the subgroup of individuals within the firm that act in coalition and dominate the firm's strategic decision-making. Several scholars have argued that the dominant coalition of a firm typically consists of the CEO and a number of the most senior managers, and have referred to this small group of influential executives as the firm's TMT (e.g., Hambrick, 2010). In line with this, Cannella, Finkelstein, and Hambrick (2008: 127) conceptualized the TMT as "the relatively small group of executives at the strategic apex of any organization. Hence, a TMT is the group of top executives with 'overall responsibility for the organization' (Mintzberg, 1979:24)." While the operational definitions, i.e., how TMTs are defined to operationalize TMT related constructs, vary across studies (for an overview see Table 1 in Carpenter et al. [2004] and Panel A in our Table 1), the conceptualization of TMTs in most studies is closely aligned with the one provided by Cannella and colleagues. This conceptualization highlights two important issues. First, although it acknowledges that the CEO is the leader of the TMT who usually exerts the most influence and power, it emphasizes that the decision-making in a firm and its management typically constitute a set of shared activities that extends beyond the CEO. Second, it underlines the view that TMTs are essentially defined by the hierarchy within

the firm (Hambrick, 2010) and generally comprise members who operate at the highest levels of the firm.¹

While this conceptualization of TMTs seems appropriate for many types of firms, it may need to be adjusted when referring to MNEs, in order to accommodate some of the specific features of the MNE that are not shared with other firms that are typically the focus in non-IB research. The MNE plays a central role in IB research, and a considerable body of work has emphasized the features of the MNE that differentiate it from domestic firms (e.g., Ghoshal & Westney, 1993). An important feature of the MNE that is likely to have implications for how we think about the TMT is that MNEs often have a dispersed power structure, whereby managers in sub-units have substantial decision-making authority and power (e.g., Andersson, Forsgren, & Holm, 2007; Bartlett & Ghoshal, 1989). Therefore, it is not uncommon for important decisions, particularly those concerning host markets, to be made at the regional headquarters (HQ) or at the national subsidiary-level, rather than at the corporate HQ (e.g., Ambos & Schlegelmilch, 2010; Beugelsdijk & Jindra, 2018). Furthermore, even in cases where decisions are made at the corporate HQ, managers from different levels within the MNE often influence decision-making (e.g., Ambos, Andersson, & Birkinshaw, 2010; Bouquet & Birkinshaw, 2008). Hence, acknowledging these realities of the MNE requires a conceptualization of TMTs that needs to be extended, so that it is broader (incorporating different levels within the MNE) and captures more levels of the hierarchy, as compared to the conceptualization used for non-MNEs. A small number of IB scholars have indeed taken a broader approach to conceptualizing the TMT than is typical in general management or strategy research, for example by looking at TMTs in international joint ventures (IJVs) (e.g., Li, Xin, Tsui, & Hambrick, 1999) or subsidiaries (e.g., Elron, 1997).

We believe that reflecting these realities in the conceptualization of the TMT is important, and that it would benefit IB scholars to take on this task. Therefore, taking into account the above features about the distribution of power and decision-making in the MNE, we define the TMT as:

"An executive team consisting of multiple managers and/or executives of an MNE at [one or more of] the corporate, regional HQ, or national subsidiary levels, who are responsible for strategically important actions, and by extension, who have the power to influence fundamental organizational outcomes, such as strategies, structures, and performance."

¹ Some scholars have acknowledged in passing that on some occasions TMTs could also comprise members who are lower in the firms' hierarchy, such as division presidents (e.g., Hambrick, 2010).

This conceptualization encompasses several definitions of TMTs in management and strategy, but in being less restrictive, it also affords an opportunity to capture more of the richness of the TMT, especially within the MNE and IB contexts. In particular, it allows more flexibility to account for the "strategic issue" under deliberation, with the possibility that, depending on the issue being studied and the research question, different sets of executives might be included in the TMT. It also allows for the fact that the managers in a TMT might be coming from different (hierarchical) levels of the MNE, as well as from different units of the MNE. In the following section, we will use this conceptualization of TMTs to set out the scope of our literature review.

REVIEW METHODOLOGY

Based on our aim to provide a systematic review of research on TMTs in IB and with the above definition of TMTs as a conceptual anchor in mind, we used a multi-stage approach to identify relevant articles. In line with a number of other reviews (e.g., Aguilera, Marano, & Haxhi, 2019), we used a three-stage approach that includes a planning stage, the collection of the articles, and a stage in which we analyzed the collected articles (see Online Appendix 1 for details).

This three-stage approach yielded a final set of 140 articles, consisting of quantitative, qualitative, and conceptual work. For each article, we coded its principal theoretical perspectives, data sources, methods, key construct definitions, and main findings. We provide an overview of some of this information in Table 1. To give a sense of the composition of these articles, we provide a breakdown by period and publication outlet in Online Appendix 1. We make two observations here that highlight the relevance and importance of our review. First, while the number of articles fluctuates over time, the interest in TMTs in IB research has grown. Second, the breakdown of studies by publication outlet highlights that the relevance and influence of IB-related TMT research goes beyond a traditional IB audience, as we observed a substantial body of work in general management and strategy journals.

Insert Table 1 about here

INTEGRATIVE ORGANIZING FRAMEWORK

Our literature review revealed that the research on TMTs in IB is multi-dimensional and spans

several important, and yet distinct, themes (Bromiley & Rau, 2016; Menz, 2012). To facilitate navigating and assessing this literature, we introduce an organizing framework that provides structure to our review. We base this framework on the taxonomy put forth by Hambrick (1994) and substantiated by Li, Xin, Tsui, and Hambrick (1999). Specifically, we focus on four key elements that have been used for describing and assessing TMTs: composition, structure, processes, and governance. TMT composition refers to the collective characteristics of its members, while TMT structure refers to the roles of its members and the relationships among those roles (Hambrick, 1994). TMT processes pertain to the normative behaviors, and the cognitive, social, and political processes that occur within TMTs, as well as to the information flows between TMT members (Li et al., 1999), and TMT governance refers to how TMTs are induced or governed to behave in certain ways (Hambrick, 1994; Li et al., 1999). This taxonomy allowed us to classify all of the empirical studies we identified into one (or more) of these four categories.² By far the most attention has gone to studying TMT composition (105 [75%]), followed distantly by TMT processes (22 [16%]), TMT governance (20 [14%]), and TMT structure (5 [4%]). We elaborate on these four elements in greater detail below when discussing the relevant literature on them.

Next, we categorize the wide range of IB related topics that have been studied in the TMT literature. We identified five broad IB topics that are central in the main theories used in IB research, in that they capture most of the key decisions' firms make when internationalizing and the outcomes of these decisions. The five topics are: (a) the scope of firms' internationalization (i.e., the level and degree of internationalization), (b) how firms internationalize (i.e., the internationalization process, which includes the pace and rhythm of internationalization), (c) where firms internationalize (i.e., location choice), (d) how firms enter a country (i.e., entry mode choice) and (e) the performance outcomes of all these choices. While other important topics no doubt exist, these five are among the most heavily researched topics in IB (Werner, 2002). Attesting to the coverage offered by these five topics, we were able to classify all but eight of the studies in our sample into one or more of these topic areas. When relevant, we separately discuss the few studies on TMTs in IB that fall outside this classification.

 $^{^{2}}$ This classification was done independently by two coders. In the few cases of disagreement, the coders discussed the discrepancy until they came to an agreement. We classified studies based on the TMT element that was most salient in a study's arguments (except in studies that look at how one TMT element influences another TMT element).

The final part of our conceptual framework considers how the four conceptual elements of TMTs are linked to the five broad IB topics. We systematically discuss the links between these two main components of our conceptual framework. In addition, we also identify and discuss how these mechanisms get moderated by (international) contextual factors, and how the different TMT elements affect each other.

Insert Figure 1 about here

Figure 1 shows our organizing framework, which we use as a template for the following sections of our review. First, we review the body of work that has looked at how each of the four TMT elements affects the IB topics in our framework. We then move from this literature on TMT elements as antecedents to the literature that has focused on how TMT elements themselves are influenced by IB-related choices and outcomes, or by other TMT elements. Finally, we discuss a number of directions for future research that relate to each of the elements in our organizing framework.

TMT COMPOSITION

The *composition* of the TMTs has emerged in the broader TMT literature as a key determinant of firms' strategic choices and outcomes (e.g., Carpenter et al., 2004), and in line with this, has also become the most studied element of TMTs in IB research. Composition refers to the collective characteristics of the TMT members, either in terms of the quantity of a compositional characteristic (e.g., the extent or level to which it is present in a team, such as the average tenure of team members), or in terms of the dispersion of a characteristic (e.g., the tenure heterogeneity in the team) (Hambrick, 1994).

While IB scholars have looked at commonly studied demographic factors (as in the broader TMT literature), such as the tenure, and educational and functional backgrounds of the TMT members (e.g., Agnihotri & Bhattacharya, 2015; Tihanyi et al., 2000), they have also gone further and considered specifically international characteristics of the TMT, such as the nationality of its members, and their collective international experience (e.g., Athanassiou & Nigh, 2002; Nielsen & Nielsen, 2011).

The Scope of a Firm's Internationalization

Several studies have linked TMT demographics, such as levels of education, organizational tenure, age, and international experience to firms' degree of internationalization (DOI) (e.g., Fernández-Ortiz &

Lombardo, 2009; Herrmann & Datta, 2005; Sambharya, 1996). The key arguments in this work have centered around the idea that these demographics are proxies for the cognitive orientation, skills, and knowledge bases of the TMT members, which will in turn affect the decision-making of TMTs.

Much work in this area has focused on the quantity, or the average levels, of specific demographic attributes in TMTs. Several studies found a negative effect of TMT average age, and either a positive effect, or no effect, of TMT education levels on firm internationalization (e.g., Agnihotri & Bhattacharya, 2015; Rivas, 2012; Tihanyi et al., 2000; Wally & Becerra, 2001). Results regarding TMT tenure have been more equivocal, with some scholars finding a non-linear (inverted U-shaped) effect of average TMT tenure or the tenure of the TMT leader on internationalization levels (Agnihotri & Bhattacharya, 2015; Lee, Kim, & Moon, 2016; Li, 2018), while others found a positive linear effect of average tenure (Rivas, 2012; Tihanyi et al., 2000). Lee and colleagues (2016) focused on a less frequently studied demographic in the context of IB, i.e., gender, and found that firms with TMTs that are led by females exhibited lower levels of DOI. In contrast, Ramón-Llorens, García-Meca, and Duréndez (2017) found no significant effect of gender on the DOI of Spanish family firms.

TMT composition in terms of prior international experience and nationality has also received close attention in this stream of work. With some exceptions (e.g., Wally & Becerra, 2001), the effect of TMT international experience on internationalization has generally been found to be positive (e.g., Agnihotri & Bhattacharya, 2015; Tihanyi et al., 2000). Athanassiou and Nigh (2002) provided additional insights into this relationship by exploring whether all TMT members' prior international experience matters equally. They found a positive effect of the TMT's international experience on firm DOI when examining the TMT as a whole. Subsequently, they found that TMT leader's experience plays a similar role to that of the rest of the TMT. However, the authors did find evidence that the experience of some individuals in the TMT matters more than that of others. Namely, a TMT member's centrality in the intra-TMT advice network increases the impact of that member's prior international experience on firm DOI. Hence, the effect of prior international experience seems to be influenced by the dynamics in the team and the internal network structure of the team.

Pisani and colleagues (2018) focused on the degree of internationalization of TMTs, which they argued facilitates international expansion through two mechanisms, i.e., by increasing levels of

international attention and by increasing levels of international trust. TMT internationalization, measured as the ratio of the number of foreign members in the TMT, was found to have a positive effect on the level of internationalization. The authors further highlighted two contingencies that narrow the disparity between foreign and domestic TMT members' cognitive tolerance for foreignness, and consequently mitigate the positive effect of TMT internationalization, namely, the institutional diversity and complexity of the firm's home region and the global focus of the firm, i.e., whether it looks beyond its home region.

In addition, a substantial number of studies have focused on *heterogeneity* in TMTs. Heterogeneity, or diversity, is often associated with different perspectives to draw from, less groupthink, more creativity, and reduced myopia, all of which contribute to the ability to reach higher quality decisions and the ability to deal with the information overload and complexity associated with internationalization (Kirca, Hult, Deligonul, Perryy, & Cavusgil, 2012). In line with these arguments, Tihanyi and colleagues (2000) postulated a positive effect of TMT (age, tenure, education, and functional background) heterogeneity on international diversification, but failed to find support for this contention, with the exception of a marginally significant positive effect for TMT tenure heterogeneity. However, others did find a positive effect of functional heterogeneity on internationalization (e.g., Rivas, 2012). At the same time, some studies found a non-linear (inverted U-shaped) relationship between heterogeneity and firm internationalization, particularly for tenure heterogeneity (e.g., Agnihotri & Bhattacharya, 2015; Jaw & Lin, 2009). This finding is usually explained in light of the complications that arise from heterogeneity, such as increased levels of conflict, hampered communication, the formation of subgroups and difficulties in implementing decisions (Kirca et al., 2012).

Other studies focused on identifying contingencies that could mitigate or amplify the positive effects of heterogeneity. For example, Carpenter and Fredrickson (2001) argued that the effect of TMT heterogeneity is contingent on the level of uncertainty (operationalized as industry-level sales uncertainty) the firm faces. They found a positive effect of TMT educational heterogeneity on firms' global strategic posture (which encompasses foreign sales, foreign production, as well as geographic diversity in terms of operations), which was positively moderated by the level of environmental uncertainty. The results for other forms of TMT heterogeneity were more complex. For example, they found TMT tenure and functional heterogeneity to be positively related to global strategic posture in low uncertainty

environments, but negatively related to it in high-uncertainty industries. Hence, they concluded, that heterogeneous TMTs are most likely to benefit from diversity in knowledge, views, skills, and external network ties in contexts with low levels of uncertainty. A meta-analysis of the drivers of firm multinationality aimed at consolidating some of these apparently conflicting findings identified the international experience of the TMT and the TMT leader as major determinants of multinationality, while other TMT demographic characteristics, such as tenure and diversity appeared to have limited explanatory power (Kirca et al., 2012).

A few studies have taken a more dynamic approach and looked at the impact of changes in TMT composition on DOI, focusing in particular on succession of the TMT leader. For example, Lin and Liu (2012) found that outside TMT leadership succession is positively associated with a change in DOI. Moreover, the authors found that bringing in a new TMT leader, who differs on key demographics from the existing chairperson, brings in new perspectives and leads to a higher DOI.

Finally, some work has moved away from demographics as proxies for the cognitive orientation and knowledge bases of the TMT members, by instead focusing on the role of personality characteristics of TMT members, and the TMT leader in particular. For example, Oesterle, Elosge, and Elosge (2016) showed that TMT leader narcissism is a significant driver of firm internationalization, and thereby demonstrated the relevance of exploring how personality, dispositional, and cognitive characteristics of TMT members impact decision-making in the context of IB.

Internationalization Process

TMT composition also impacts the internationalization process, and in particular the speed at which firms internationalize. Drawing on UET, Mohr and Batsakis (2019) argued that TMTs' international experience will affect their international orientation and knowledge related to international expansion in such a way that internationally experienced TMTs will opt for more rapid internationalization. However, they found that this effect wears off, and even becomes negative, as TMT international experience reaches very high levels. They attributed this to high levels of experience being more likely to include negative experiences, which makes TMTs more aware of time-compression diseconomies, and also to more heterogeneous experiences, which may cause conflict and introduce obstacles to communication and coordination. In addition, the authors found that competitive pressures, which create more demands on

TMTs and could push executives to rely on mental shortcuts and make more hasty decisions, moderated the negative effects of high international experience on speed of internationalization.

In the context of SMEs, and building on the resource-based view, Reuber and Fischer (1997) found that SMEs with TMTs that have more international experience (considered a valuable resource) were more likely to start to internationalize early on in their life cycles. Ganotakis and Love (2012) identified founding teams' commercial and managerial experience as key determinants of the likelihood of firms becoming exporters, while both general and specific education had a positive effect on exporting intensity. Hence, team characteristics and experiences differentially affect the different stages of the internationalization process. Finally, Wu and Ang (2020) compared TMTs composed of members with external political and international ties with those whose members lack such ties and found differences in their international expansion patterns. Specifically, the authors advanced arguments about the role of TMTs' external network complementarity, i.e., the ability to synthesize the benefits of different types of ties, in initial international expansion. They found a positive interaction effect between TMTs' domestic political ties and foreign ties on the propensity to initiate international expansion.

Some work has also explored how TMT heterogeneity has an impact on the internationalization process as a moderating factor. For example, Nadolska and Barkema (2014) examined the interaction effect between TMTs' prior experience with acquisitions and TMT heterogeneity, in terms of education and tenure, on the rate of future acquisitions. The authors found that the impact of TMT's acquisition experience on the subsequent rate of acquisitions was stronger for educationally homogenous teams, while tenure diversity does not appear to have a moderating effect.

Location Choice

Research linking TMT composition to location choice has been relatively scarce. Barkema and Shvyrkov (2007) examined how TMT diversity, in terms of education and tenure, affects location choice. They found that TMT tenure diversity increased the likelihood of firms entering novel geographic markets, while educational diversity had no effect. Bai, Tsang, and Xia (2020) looked at how the leader of the TMT can influence a more specific type of location choice. Namely, they focused on the role of the TMT leader' education on the decision to list an IPO domestically (in this case, China) or overseas, which they argue has far-reaching consequences for future internationalization. Integrating ideas from UET and

imprinting theories, they found that leaders who graduated from elite Chinese home universities tended to list their firms domestically in China, whereas leaders who graduated from foreign universities preferred overseas listings.

Entry Mode Choice

Several scholars have examined the influence of the demographic characteristics of the TMT, or of some of its key members (most notably the TMT leader/CEO), on entry mode choice. We will again distinguish between research that has focused on the quantity of demographic characteristics in the TMT and research that has looked at TMT heterogeneity, and we will discuss the relevant literature in that order.

Several papers that focused on the TMT leader, showed that both the leaders' position and firm tenure have a positive effect on their preferences for full control modes (Herrmann & Datta, 2002, 2006), with the effect of the latter being particularly strong when the TMT leader enjoys greater managerial discretion (Xie, 2014). Moreover, TMT leaders with throughput functional experience appeared to favor acquisitions over JVs and greenfields, while leaders with international experience preferred greenfield and acquisitions over JVs (Herrmann & Datta, 2006). In line with these findings, Chittoor, Aulakh, and Ray (2015) found that the international experience of the TMT leader is positively related to Indian firms pursuing foreign acquisitions.

Drawing on relational capital theory, Lee and Park (2008) argued that TMTs' international exposure, which leads to the development of important relational capital with foreign firms, positively influences firms' alliance formation. In addition, drawing from UET, they argued and found that the more uncertain the decision-making environment is, the more the TMT characteristics will be reflected in strategic choices, i.e., the stronger the effect of TMT international exposure on alliance formation.

Nielsen and Nielsen (2011), in turn, emphasized the importance of distinguishing between TMT international experience and nationality diversity. Their findings suggest that TMTs with international experience are more likely to opt for full-control entry modes, while TMTs with higher nationality diversity are more inclined to opt for shared-control modes. The authors attributed these differences to the inherently different ways in which these characteristics contribute to managerial decision-making. International experience provides valuable knowledge and external network contacts, which aid in assessing the risk and uncertainty associated with foreign market entry, while nationality diversity brings

benefits in terms of a variety of values and cognitive schemas that are rooted in individuals' cultures and cannot simply be acquired through international assignments.

A small set of studies have moved beyond TMT demographics and examined the effect of executives' psychological attributes on entry mode choices. For example, Lai, Lin, and Chen (2017) showed that TMTs that are headed by overly confident leaders were more likely to opt for full ownership entry modes, and that this effect was particularly strong under conditions of high environmental uncertainty and information asymmetry.

Performance Outcomes

The role of the international experience of the TMT and the TMT leader has featured prominently in the body of work that focusses on performance outcomes. While the general assumption that the international experience of the TMT or its individual members positively contributes to firm performance has found empirical support (e.g., Carpenter, Sanders, & Gregersen, 2001; Daily, Certo, & Dalton, 2000), several studies have looked at the boundary conditions of this effect. For example, the degree of internationalization and the interdependence between the international activities of MNCs have been identified as factors that positively moderate the relationship between the international experience of the TMT leader and firm performance (Carpenter et al., 2001; Daily et al., 2000; Roth, 1995; Yeoh, 2014). In addition, Carpenter and colleagues (2001) found the international experience of the TMT leader to be particularly beneficial for firm performance when it is accompanied by international experience in the rest of the team as well, since this allows knowledge to be bundled and a shared understanding to develop. Nielsen (2010a) argued for a mediation effect and found a positive effect of TMT internationalization (a composite measure capturing both the teams' diversity in international experience and in nationality) on the number of subsequent foreign market entries, which in turn had a positive effect on firm performance. Le and Kroll (2017) focused on three components of international experience, i.e., length of time spent abroad, number of countries worked in, and cultural distance the TMT leader was exposed to, and found both positive direct effects on firm performance and indirect effects through strategic change. Focusing on compositional gaps in TMTs, rather than on the characteristics they possess, Hambrick et al. (2001) developed a model to describe how management teams' composition, and in particular the differences that originate from observable and less observable demographic and psychological characteristics, can

lead to compositional gaps within the team. While these gaps can lead to constructive debate and healthy task conflict, they also have the potential to lead to a downward spiral of relationship conflict, substantive conflict, and behavioral disintegration in the group, subsequently leading to performance deterioration. Finally, Tasheva and Nielsen (2020) introduced the concept of global dynamic managerial capabilities, derived from managers' international human and social capital as well as their cognition. They found that TMTs that possess such capabilities will be more likely to pursue global strategies that increase firm performance.

Several studies have also looked at the effects of TMT heterogeneity. This body of work has mainly focused on heterogeneity that pertains to functional background, educational background, international experiences, nationality, and tenure. The findings in these studies suggest that the effect of TMT heterogeneity on performance is largely contingent on firm level and environmental factors (Nielsen & Nielsen, 2013). For example, while Díaz-Fernández and colleagues (2015) found heterogeneity in TMT members' functional background to negatively affect firm performance, Carpenter (2002) found the effect to be contingent on the firms' level of DOI (negative at high levels of DOI, positive at low levels). In contrast, heterogeneity in terms of education has a positive effect on firm performance (Díaz-Fernández et al., 2015), particularly so in firms with high levels of DOI (Carpenter, 2002). Industry and international experience heterogeneity also exhibited a positive impact on firm performance (Díaz-Fernández et al., 2015). Finally, nationality heterogeneity has featured prominently in this literature, and again its effect on performance is contingent on several factors. Kaczmarek and Ruigrok (2013) found TMT nationality diversity to contribute to firm performance but only in firms with high degrees of internationalization. Nielsen and Nielsen (2013) also found the effect to be stronger in firms with high DOI, as well as in teams with higher tenure and in munificent environments, which allow TMTs to operate with less constraints and allows them to capitalize on the diversity in opinions and perspectives residing in heterogeneous teams. Finally, Gong (2006) focused on the impact of subsidiary TMT nationality diversity on subsidiary performance and found a positive effect, which became stronger with subsidiary age. Somewhat at odds with these findings, Sekiguchi, Bebenroth, Li, and Donghao (2011) showed that, in the context of MNCs' Japanese subsidiaries, the proportion of expatriates on the TMT had a positive effect on subsidiary performance in young, but large subsidiaries.

Others

TMT composition has also been examined as a determinant of several other decisions and outcomes. For example, Slater and Dixon-Fowler (2009) argued and found that TMT leaders with international experience are more likely to exhibit an enhanced awareness of broader stakeholders' expectations and an increased motivation to act in society's interest, leading to higher corporate social performance. Boone and colleagues (2019) focused on the benefits of diverse TMTs (in terms of nationality) on corporate entrepreneurship and innovation, finding a positive effect of heterogeneity, but only in environments where there is an equal distribution of power and low hierarchy, which allows these teams to truly function as a team. The international experience of the overall TMT or that of the TMT leader specifically have also been linked to enhanced corporate entrepreneurship (Wei & Ling, 2015) and superior innovation performance at the subsidiary level (Nuruzzaman et al., 2019). Others have argued that TMT international experience and TMT heterogeneity contribute to the adoptions of foreign managerial practices (Shin, Seidle, & Okhmatovkiy, 2016), export orientation (Filatotchev, Liu, Buck, & Wright, 2009), learning from experience with specific entry modes (Nadolska & Barkema, 2014), and to stock market reactions to announcements of the appointment of new executives (Schmid & Dauth, 2014).

TMT STRUCTURE

Hambrick (1994) indicated that the structure of a TMT refers to the roles of its members and the relationships among these roles. In line with this, studies in the broad TMT literature have looked at the presence and interdependence of TMT member roles, as well as role ambiguity (e.g., Hambrick & Cannella, 2004; Hambrick, Humphrey, & Gupta, 2015). Others have expanded on these by also considering TMT size (e.g., Certo, Lester, Dalton, & Dalton, 2006) and hierarchy within the TMT (e.g., Ling, Simsek, Lubatkin, & Veiga, 2008). Although the structure of TMTs has been shown to be important (e.g., Cannella, Park, & Lee, 2008; Hambrick et al., 2015; Li et al., 1999), research on this element is relatively sparse. At an earlier time, Hambrick (1994: 179) noted that "the structure of TMTs has gone almost totally without attention in research to date." More than two decades later, Radek and Menz (2020) suggested that research on TMT structure remained a "nascent" research area in the TMT literature at large. This is also reflected in our review, as we identified only two studies with an IB focus that have looked into TMT structure as an explanatory variable.

Performance Outcomes

Work that has looked at the impact of TMT structure on performance outcomes has primarily studied the effects of role conflict and role ambiguity on performance outcomes in the context of IJVs. Senior managers are often appointed to the IJV by their parent companies, which makes TMTs in IJVs more prone to role conflict and ambiguity, rendering this a particularly relevant setting to study the performance consequences of TMT structure. Contrary to their prediction, Gong, Shenkar, Luo, and Nyaw (2001) found that role conflict increases satisfaction with the performance of IJVs in their sample of Chinese-based IJVs. However, the authors did not find any relationship between role ambiguity and satisfaction with the performance of IJVs. Based on insights obtained from in-depth interviews with managers in IJVs in China, Li et al. (1999) suggest that role ambiguity reduces IJV performance. In addition, the authors also propose that creating interdependence between TMT members should lead to higher IJV performance.

TMT PROCESSES

A third key conceptual element of the TMT is its processes. These refer to the cognitive, social, and political processes that underlie the functioning of and decision-making in TMTs. They include coalition formation within TMTs, group decision-making, power dynamics within TMTs, and TMT cognition and sense-making (e.g., Eisenhardt & Bourgeois, 1988; Ensley, Pearson, & Pearce, 2003). Hence, this element encompasses a wide set of processes that occur within the TMT, which have received considerable attention in the broader TMT literature. Our review yielded 22 studies³ with an IB focus that primarily investigate TMT processes.⁴

The Scope of a Firm's Internationalization

Like other strategic decisions, the decision to internationalize, and the extent to which this will

³ This includes studies that look at TMT processes as an outcome, which we will discuss below in the section labelled "The TMT as an outcome."

⁴ Several studies have highlighted that in some instances the links between TMT composition and TMT structure, and firm choices and outcomes, are mediated by TMT processes (Nielsen, 2010a). Hence, even though the taxonomy that we use considers processes as a distinct conceptual element of TMTs, these processes can also act as a mediator. To classify studies that investigate TMT processes as mediators, we took the following approach: Whenever the process aspect was more salient, we classified it as a TMT processes study and accordingly discussed it in this section. In cases where the emphasis was on other TMT elements, we discussed it in the relevant sections.

happen, are affected by the cognitive processes of the TMTs. In one of the early studies on the cognitive behavioral patterns of TMTs, Levy (2005: 245) found that top managers' attention patterns, or cognitive processes of "noticing and constructing meaning" about the environment, influence their firms' DOI. Her findings indicate that TMTs that focused more on their external environment, as opposed to their internal environment, were more likely to develop extensive global operations.

Location Choice

The body of work that has looked at the effects of TMT processes on location choice is quite limited. Barkema and Shvyrkov (2007) examined the dynamics that unfold in diverse TMTs and their consequences for location choices. The authors consider both the benefits of cognitive diversity, in terms of experiences and ideas, and the risks associated with social categorization and the emergence of faultlines when several demographic attributes align, leading to the division of the TMT into subgroups. They found that TMT tenure diversity increased the likelihood of investing in new geographic areas. However, in strong faultline settings, firms are less likely to internationalize into new geographic areas. This can be attributed to the behavioral disintegration that arises in these TMTs in the form of lower levels of communication and the lower likelihood of reaching consensus, particularly on new strategic ideas. In addition, the authors found that over time and as TMT members interact, the negative effects of faultlines gradually disappear, but so do the benefits of cognitive diversity. This evidence of erosion over time of both the effects of cognitive diversity and strong faultlines is particularly insightful for work on TMT processes and internationalization.

Performance Outcomes

A larger number of studies have also looked at how TMT processes affect performance outcomes. Using data collected from senior managers in business units competing in global industries, Roth (1992) studied the effect of the TMT's risk taking, openness in decision-making, and group consensus on the unit's performance. The findings indicate that to achieve performance benefits it is essential to have a fit between the international strategy pursued and these decision-making characteristics collectively. Subsequent work focused more on the processes and dynamics that unfold between the TMT leader and the rest of the TMT (i.e., the CEO-TMT interface), or more broadly the dynamics that unfold within the TMT, as subgroups emerge because of faultlines. Li and Hambrick (2005) observed that factional faultlines, resulting from demographic dissimilarities between groups (in terms of age, gender, ethnicity, and team tenure), lead to heightened emotional conflicts within a TMT, which subsequently negatively affect IJV performance.

Other studies have studied how the negative effects of faultlines can be attenuated. For example, Georgakakis, Greve, and Ruigrok (2017) found a negative baseline effect of knowledge-based subgroups, triggered by faultlines, on the performance of large international firms. The authors also found three dimensions (i.e., relational, informational, and socialization) of the CEO-TMT interface to be important moderating factors in this relationship. Specifically, TMT leaders that socio-demographically resemble other TMT members, possess career experience variety, and have overlapping tenure with other TMT members, can act as bridge builders between the subgroups and alter the dynamics in the team to enhance collective decision-making. The importance of the CEO-TMT interface is further illustrated by Lo and Fu (2016), who found that higher levels of interactions (i.e., a close relationship) between the TMT leader and other TMT members enhance organizational performance and internationalization. In line with this, a recent study by Su, Fan, and Rao-Nicholson (2019) on leader-TMT dynamics, and their impact on Chinese banking and financial firms' financial internationalization, i.e., the listing of shares on overseas stock markets, identified four types of leader-TMT configurations that shed light on how a wellfunctioning TMT can be formed to achieve internationalization goals. Their findings suggest that the effectiveness of top leaders' experiences and political ties need to be understood in conjunction with TMT diversity in order to ensure dynamics that will mitigate liabilities and capitalize on the strengths of the leader and the team.

TMT GOVERNANCE

A final conceptual element of TMTs is their governance, which refers to how TMTs are governed and incentivized to behave in certain ways (Hambrick, 1994; Li et al., 1999), either through financial or non-financial incentives (e.g., Strike, Berrone, Sapp, & Congiu, 2015). Another aspect of research in this area relates to how differences in the monitoring and governance of TMTs by the board of directors and the firm's owners affects strategic choices and subsequent outcomes (e.g., Wang, Chung, & Lim, 2015). Before we discuss the body of work on TMT governance below, we note that the literature on the governance of TMTs is part of a broader literature on (comparative) governance. However, much of this literature has focused on general, often country-level, governance issues and does not directly fall within the scope of our review, as it does not explicitly focus on TMTs. Therefore, we discuss only those studies that offer insights that are directly relevant to TMTs.⁵

The Scope of a Firm's Internationalization

Research on the impact of TMT governance on internationalization decisions has predominantly relied on agency theory. Several studies have argued that managers' risk aversion makes them reluctant to internationalize, as doing so entails considerable risks, particularly in the short-term. For example, Carpenter, Pollock, and Leary (2003) argued that managers in young high-tech firms are reluctant to add international risk to the already high risk associated with their technological core. They combined these agency theory arguments with arguments from behavioral theories to develop a theory of "reasoned risk-taking" (Carpenter et al., 2003: 805), which explains how prior international experience may alter managers' perceptions of the risk of internationalization and helps them justify taking actions that without those experiences would be considered too risky. The study showed that TMT stock ownership increases internationalization in these firms by aligning management's interests with those of the shareholders, and that this effect is even stronger when the TMT had prior international experience. The study further revealed that young high-tech firms are more likely to internationalize when VC backing is complemented by the international experience of TMT members.

Similarly, Chen (2011) showed that TMTs with longer tenure or with more international experience are less prone to refrain from internationalization out of risk aversion. In addition, the positive effects of TMT tenure and international experience on internationalization were stronger when more independent directors (who can act as sources of advice and council, as well as monitor) are included on the board. Chittoor and colleagues (2019), in turn, found that firms with TMT leaders who are owners exhibit higher internationalization levels than firms with professional leaders, and that this effect is stronger for founder TMT leaders, for stand-alone firms (as opposed to business group affiliated firms), and for firms exceeding their performance aspirations. Also focusing on how managerial ownership can align incentives, Zahra

⁵ We direct readers interested in broader governance issues to Aguilera et al.'s (2019) review of the international governance literature at large.

and colleagues (2007) showed that increasing TMT members' ownership in SMEs leads to higher investments in knowledge-based resources, which the authors argue are predictive of internationalization, and that this effect is enhanced in the presence of independent outside directors on boards.

On the other hand, some studies have argued that ownership will not offset managers' risk aversion and the resulting reluctance to internationalize. George, Wiklund, and Zahra (2005) argued that tying SME top managers' personal wealth to firm performance through ownership may lead to managers becoming more risk averse. In line with this, they found that as the ownership of TMT leader and the entire TMT increased, both the scale and scope of internationalization declined. However, the negative effect of executive ownership (both of the TMT and of its leader) on internationalization scale was mitigated in the presence of VC ownership, and also in the presence of institutional ownership (for the effect of TMT leader's ownership only). More recently, Alessandri and Seth (2014) found that incentive contracts with higher managerial stock ownership are negatively related to international diversification in S&P 1,500 firms. Based on these findings, they concluded that the costs associated with managerial risk bearing (e.g., having to pay a premium to bear risk) outweigh the benefits of incentive alignment in such contracts. Combining both views on risk alignment through ownership, Wang, Chung, and Lim (2015) postulated and found an inverted-U shaped relationship between the ownership stake of the TMT leader and firm internationalization. They contended that ownership could align the interests of the TMT leader with those of other shareholders, thereby incentivizing them to pursue internationalization. However, at high levels of ownership, TMT leaders will again become reluctant to internationalize given the high concentration of personal wealth invested in the firm, which they put at stake when internationalizing. In addition, the authors studied the effect of the compensation of the TMT leader on internationalization and found longterm compensation to be positively associated with the likelihood to enter a new country. This study also examined the monitoring role of boards on TMT leaders' incentives to internationalize and found that independent board leadership structures and higher outside director ratios were both positively associated with internationalization. The results of these studies show the complex role of TMT governance for firm internationalization decisions and clearly illustrate that further research is warranted.

Internationalization Process

One important aspect of the internationalization process is determining when to internationalize,

and some studies have investigated how the compensation of TMT members affects this decision. Woo (2019) found that TMT leaders' likelihood of initiating internationalization early on in the firm's lifecycle is negatively associated with the level of their cash-based compensation, and positively associated with their equity-based compensation. Moreover, the incentivizing effect of equity-based compensation on early internationalization became stronger as the TMT leader's tenure increased.

Entry Mode Choice

Governance or incentives also influence the way TMTs choose to internationalize. Drawing on agency theory, Musteen, Datta, and Herrmann (2009), showed that equity ownership structures and TMT leaders' compensation packages influence foreign market entry modes. More precisely, they found that greater equity ownership by institutional shareholders and TMT members who also serve as insider directors is positively associated with a preference for full-control entry modes, which are generally deemed to be riskier and require longer-term commitment. Moreover, TMT leaders who have a greater proportion of their pay tied to long-term firm performance exhibited a greater preference for full-control entry modes over shared-control modes.

Performance Outcomes

Drawing on information-processing theory and behavioral perspectives, Carpenter and Sanders (2004) argued that high TMT pay allows firms to attract the best human capital and encourages managers to take the risks necessary for MNE success. Based on this logic, they postulated a positive relationship between TMT member total pay and MNE performance. In addition to finding support for this relationship, they found that the long-term incentive pay of the TMT is also positively related to MNE performance, and that the gap between the pay of TMT leader and other TMT members is negatively related to MNE performance. Finally, as MNEs vary greatly in DOI, and consequently in information processing needs, the authors postulated and found that the positive relationships between TMT pay and MNE performance, and between TMT long-term pay and performance, are stronger in MNEs with high levels of DOI. Similarly, the authors also found that the negative relationship between the gap between the TMT leader's and the other TMT members' pay and performance is strongest in MNEs with high levels of DOI. These results highlight the importance of incentivizing the whole TMT, and not just the TMT leader, in complex organizations such as MNEs with high DOI.

THE TMT AS AN OUTCOME

In addition to the work that has focused on how different elements of TMTs influence IB-related strategic choices and performance, there is also a body of work that has looked at how international factors affect different elements of TMTs, i.e., that has studied TMT as an outcome rather than as an antecedent. We again use the taxonomy put forth by Hambrick (1994) to organize and summarize this body of work.

First, several studies have looked at how international factors influence the *composition* of TMTs. For example, they found firms' DOI to impact the likelihood of foreigners being appointed to the TMT (Greve, Biemann, & Ruigrok, 2015), the level of diversity in the team (in terms of nationality and international experiences) (Greve et al., 2009; Nielsen, 2009), and the selection of TMT leaders with prior international experience (Kunish, Menz, & Cannella, 2019). There is also evidence that MNEs' entry mode choices affects TMT composition. For example, Krug and Hegarty (1997) found that TMT turnover in U.S. firms that are acquired by a foreign firm is significantly higher than in domestic deals. Hence, both the level of internationalization that firms pursue and the way that they internationalize, i.e., the entry mode, affect the composition. For example, MNEs staff their subsidiary TMTs with more internationally experienced individuals in institutionally distant environments (Rickley, 2019), market transitions have been associated with changes in the top management of business group firms (Luo & Chung, 2015), and industry characteristics influence the likelihood of adding similar or dissimilar members to TMTs (Nielsen, 2009).

Second, a smaller set of studies has investigated how international factors affect the *structure* of TMTs. The issues of role conflict and role ambiguity have been central to this work, particularly in the context of IJVs, in which executives face the challenge of balancing the expectations of the parent companies and those of the IJV itself. Li and colleagues (1999) suggest that the inherent problems of IJV control, with each parent wanting to exert more control over the JV than the other by putting its managers in crucial positions in the TMT, leads to role ambiguity. In addition, they observed that problems in terms of role conflict and ambiguity arise as a result of redundant staffing by the different parents and institutional differences between the Chinese and Western parents. Shenkar and Zeira (1992) found that TMT leaders in IJVs experience less role conflict when the number of parent firms was higher, while role

ambiguity was higher when the parents differed on key cultural dimensions. Similarly, Gong and colleagues (2001) found that cultural differences increase both role conflict and ambiguity, and that the dominance of the foreign or local parent in the IJV affects the level of role conflict. Moreover, when the IJVs were granted more autonomy, role ambiguity decreased. These findings suggest that the way firms internationalize, and the way they manage their foreign operations, impact the structure of their TMTs, and in particular role ambiguity and conflict. Athanassiou and Nigh (1999) focused on another structural aspect of TMTs by looking at intra-TMT networks. Specifically, they showed that the density of TMT's advice networks, i.e., the extent to which members seek advice from one another and share tacit knowledge within the TMT, increases as a result of the firm's level of internationalization and the degree of interdependence between the firm's international operations. Finally, Sanders and Carpenter (1998) looked at another structural characteristic: TMT size, finding that firms cope with the complexity resulting from higher degrees of internationalization by having larger TMTs.

Third, several studies looked at the effect of international factors on TMT *processes*. For example, Calori, Johnson, and Sarnin (1994) showed that the complexity of TMT leaders' cognitive maps was influenced by the geographic scope of their organization, as well as by their organization's links with foreign parent companies. This has implications for the processes within the TMT, in particular for how the TMT functions as a whole. Namely, the TMT leader's role is to act as a "cognitive integrator," and the complexity of a leader's cognitive maps should match the complexity of their environment for them to be effective integrators (Calori et al., 1994: 439). Shedding additional light on TMT cognition, Kobrin (1994) linked a firm's geographic scope to its managers' geocentric orientation, i.e., whether they have a global systems approach to decision-making. Going beyond managerial cognition and the cognitive processes that occur within TMTs, some studies have examined how a firm's IB related decisions affect the behavior of TMT members and their interactions with each other. For example, Athanassiou and Nigh (2000) found that the more MNEs internationalize, the more their TMT members become involved in overseas activities, through personal presence and interactions in foreign markets, which allows them to develop tacit knowledge stocks, which they then prefer to share via face-to-face interactions when addressing strategically important issues.

Fourth, several studies have looked at TMT governance as an outcome, focusing predominantly on

executive compensation. For example, Sanders and Carpenter (1998) found that firms' levels of internationalization result in higher overall pay for the TMT leader, and also lead to the use of higher proportions of long-term pay, which they attributed to the need to overcome agency monitoring problems introduced by the complexity of firm internationalization. When examining one specific mode of internationalization, Ozkan (2012) found similar results, i.e., that foreign acquisitions lead to higher compensation for the TMT leader than domestic acquisitions. Hence, this body of work highlights that the scope of firms' internationalization and entry mode choices affect how TMTs are governed, especially in terms of financial incentives.

Finally, several studies looked at how one element of TMTs affects another element. For example, Greve and colleagues (2015) found that the appointment of foreigners to the TMT depends on the types of roles that are in the TMT. In particular, they showed that MNEs exhibit a preference to appoint foreign TMT members in boundary-spanning roles. Hence, as the structure of the TMT changes and leads to more roles that operate at the interface between the MNE and external suppliers, customers or partners, it is likely that the composition of the TMT will also evolve and incorporate more diverse members. Others have highlighted the differential effects that the inside and outside hiring of new executives may have on TMT composition. More precisely, the decision to promote internally or hire new executives externally is influenced by the TMT composition and structure ex ante (Doms & Knyphausen-Aufseß, 2014). In addition, firms are more likely to appoint socio-demographically dissimilar executives through internal promotions, while external hires tend to show greater similarity to incumbent executives (Georgakakis, Greve, & Ruigrok, 2018). Nielsen (2009) found that companies select new TMT members who are similar to existing ones in terms of nationality, international experience, education background, and industry experience, due to attraction-selection-attrition mechanisms (i.e., people are attracted to, selected by, and retained within organizations that fit their personal preferences and characteristics). However, the author also found that organizational and environmental factors can mitigate these tendencies.

TMT composition also affects the processes in the TMT. This is implicit in the discussion in the TMT composition literature pertaining to the pros and cons of team heterogeneity. This is also typically the case in the IB literature that has looked at the consequences of faultlines in TMT. While most of these studies theoretically focus on how differences in TMT processes due to faultlines affect strategic choices

and performance (e.g., Georgakakis et al., 2017; Li & Hambrick, 2005), almost by definition they have a compositional aspect to them, as the absence or presence of faultlines in a TMT typically depend on the collective characteristics of the TMT members (i.e., the composition). However, some studies have explicitly studied the relationship between TMT composition and the processes in the TMT. Athanassiou and Roth (2006) looked at how TMT composition affects TMT structure (in terms of the structure of the intra-TMT network), and thereby the (information sharing) processes within the TMT. They showed that diversity in international experiences of each executive individually, and heterogeneity in the team as a whole, influence an executive's centrality in the TMT's advice network, and therefore affect the processes of information sharing in the team. Finally, several studies looked at the links between TMT composition and TMT governance. For example, scholars have examined how executives' characteristics, such as their international experience, influence compensation levels and how this relationship is contingent on the characteristics of other executives (e.g., Peng, Sun, & Markóczy, 2015; Schmid & Altfeld, 2018).

In sum, this body of research highlights that TMT elements are affected by international strategic choices and performance. Beyond their direct relevance for the work in IB, these studies also have implications for the broader TMT literature. The strategy literature has looked extensively at how environmental and organizational factors affect various aspects of the TMT (see Carpenter et al. [2004] for an overview). However, compared to IB scholars, strategy scholars have paid less attention to how firms' strategic choices, and the outcomes of these choices, influence different elements of the TMT. The above summary of IB work highlights the relevance and potential benefits of such an investigation.

DIRECTIONS FOR FUTURE RESEARCH

We organize our discussion in this section based on our organizing framework in Figure 1. We start with future research opportunities that relate specifically to each of the four TMT elements. Subsequently, we discuss future research opportunities on the mechanisms that link TMT elements with IB-related outcomes in two ways. First, we outline the ways in which TMT research in IB can incorporate additional mechanisms to link TMT elements to outcomes by increasing its theoretical plurality (e.g., by looking beyond UET for insights). Second, we focus on the empirical side and discuss the importance of using operational definitions that are closely informed by a study's research question, as well as the mechanisms and assumptions that are discussed in that study's theoretical framework. We also elaborate on the

importance of adequately addressing endogeneity, so that there can be closer correspondence between the evidence that is presented in studies and the inference they make about the mechanisms at play. Next, and again in line with our organizing framework, we discuss the importance of considering additional IB-related contextual factors for future research on TMTs in IB. We argue that the incorporation of internal or external IB-related contextual factors can help to refine the mechanisms and theoretical perspectives used in this research, and also serve as contingencies (as moderators or boundary conditions) to improve our understanding of the relationships between TMT elements and outcomes. Finally, we move on to future research opportunities that relate to the outcomes in our framework. We include not only IB outcomes that are influenced by TMT elements, but also ideas that relate to TMT elements as outcomes themselves. We provide an overview of our directions for future research in Table 2.

Insert Table 2 about here

TMT Elements

TMT Composition. Future research can continue to make progress by incorporating advancements in related literatures that are specifically relevant to understanding how TMT composition matters for IB related outcomes. For example, while prior research has extensively examined the impact of the TMTs' international experience on a variety of outcomes (e.g., Hermann & Datta, 2005), the organizational learning literature grounded in transfer theory from psychology has taught us that experience is not always transferable to different contexts (Cormier & Hagman, 1987; Ellis, 1965). Hence, instead of studying the impact of overall TMT international experience, focusing on specific types of experience (e.g., in terms of specific tasks or in geographic locations) that match the focal context and research question might generate new insights.

As another example, research questions about the implications of TMT diversity in terms of nationality (e.g., Gong, 2006; Nielsen & Nielsen, 2013) might benefit from incorporating the idea that individuals from different nationalities often differ on multiple dimensions (e.g., culture, religion, or language). IB scholars are increasingly unpacking and investigating such differences (e.g., Dow, Cuypers, & Ertug, 2016). Future work on TMT composition might continue to explore and contrast the effects of

diversity on dimensions other than nationality, such as culture, language, and religion. This would also create opportunities for research on faultlines. Most work in IB on TMT faultlines has focused on attributes such as age, tenure, education, and gender, which are not necessarily international in nature (e.g., Barkema & Shvyrhov, 2007; Li & Cui, 2018).⁶ While these attributes are undoubtedly important, factors that are more international, such as national culture, language, and religion, are also important aspects of TMT members' identity structures. Therefore, it would be interesting to explore how such attributes create faultlines, and how they thereby affect the functioning of TMTs. Considering multiple *international* attributes simultaneously would also be in line with the direction in the broader faultline literature, and the IB literature on faultlines, which has progressed from focusing on single attributes towards considering multiple attributes (e.g., Georgakakis et al., 2017; Thatcher & Patel, 2012).

It is also important that researchers consider altogether new characteristics of the TMT. Concepts such as cultural sensitivity (e.g., Shapiro, Ozanne, & Saatcioglu, 2008) and cultural intelligence (e.g., Pesch & Bouncken, 2018) have been well-studied in the broader IB literature and shown to affect decision-making. Although these factors have not yet received substantial attention in the literature on TMTs in IB, we believe they could provide valuable insights into TMTs' IB related decision making. For example, TMTs that have higher levels of cultural intelligence might choose to internationalize more and make better decisions. Moreover, an effort to further bring these concepts in would add to the relatively small body of TMT-IB work that has started to look at personality characteristics and other psychological factors. In addition, since most existing work has focused on the CEO and non-international factors, it would also benefit from being expanded to the TMT-level and incorporating IB factors.

Finally, we would like to encourage scholars to go beyond looking at one compositional characteristic, or a set of characteristics side-by-side (as independent from each other), and to start investigating bundles of compositional characteristics. This would allow researchers to see whether and

⁶ Some studies consider attributes of the TMT members that are international in nature, but these studies focus on a single international attribute in combination with non-international attributes, rather than systematically considering a mix of international attributes. For example, Georgakakis, Greve, and Ruigrok, (2017) focus on informational attributes and consider TMT members' functional and country experience to calculate their faultline measures. Li and Hambrick (2005) identified sub-groups in the TMTs of IJVs based on the nationality of the TMT members and then focussed on a number of additional social category attributes to determine the strength of the faultlines between the sub-groups, i.e., age, tenure, gender, and ethnicity (of which the latter can be considered international in nature).

how such configurations of characteristics, rather than individual characteristics, can explain decisions and outcomes in novel ways.⁷ This can be done by using qualitative comparative analysis (QCA) (e.g., Ragin, 2008). Such configurational approaches have yielded valuable insights in other work in IB (for an overview see Fainshmidt, Witt, Aguilera, and Verbeke [2020]) and non-IB research (e.g., Misangyi & Acharya, 2014), and have the potential to improve our understanding here as well.

TMT Structure. There is a dearth of research that looks at how TMT structure impacts firms' strategic choices. In addition, the limited body of work we identified has been conducted in one context (i.e., China-based IJVs), which leaves open questions about generalizability. Hence, it is important for research on TMT structure to explore other empirical contexts, not characterized by shared ownership, and in other geographic areas.

Moreover, future research would also benefit from incorporating other structural characteristics that have not been studied in the IB context. For example, future work could explore how role interdependence or the presence of certain roles (such as a COO to whom other TMT members report to instead of to the CEO) in the TMT impact IB choices and outcomes. Research could also explore the effects of differences in the distribution of power within the TMT, for example between the TMT leader and other members of the TMT. This, in turn, can also be explored in combination with interdependence and the distribution of roles, to improve our understanding of any interplay between these structural factors and their effect on IB related decisions and outcomes. Moreover, power structures and the acceptance of unequal distribution of power vary across cultures (e.g., Hofstede, 2011). Incorporating these differences might help us better understand differences in the choices that TMTs make across countries.

While the general TMT literature has emphasized the relevance of studying TMT size, as it is linked to a team's information processing capacity (e.g., Certo et al., 2006; Haleblian & Finkelstein, 1993), the literature on TMTs in IB has remained relatively silent on this issue. Yet the complex information processing demands MNEs face, makes this an interesting structural element to study, on its own or in conjunction with external or internal moderators. Moreover, research in the related context of corporate boards found that board size affects firms' strategic choices and performance (e.g., Dalton, Daily, Johnson,

⁷ Some studies have started to adopt QCA approaches to study other aspects of TMTs, such as its processes (e.g., Lo & Fu, 2016; Su et al., 2019), but the impact of compositional configurations remains unexplored in this manner.

& Ellstrand, 1999; Goodstein, Gautam, & Boeker, 1994). Therefore, it would be relevant to explore whether TMT size plays a role in influencing IB outcomes as well.

It might also be interesting to explore how structural characteristics of intra-TMT networks impact IB-related choices. While some studies have looked at intra-TMT structural characteristics as a dependent variable (e.g., Athanassiou & Nigh, 1999; Athanassiou & Roth, 2006), less attention has gone into investigating how structural characteristics might act as explanatory variables. Future work could explore how centralization within the TMT or other hierarchical orderings, such as the TMT's status hierarchy, affect IB-related decisions. In addition, researchers could distinguish between formal and informal hierarchical orderings (e.g., McEvily, Soda, & Tortoriello, 2014) in the TMT and investigate the implications of the correspondence (or lack thereof) between these two. Another direction for future research might be to focus on intra-TMT network density. Network density already received attention in the TMT literature in IB as an outcome (e.g., Athanassiou & Nigh, 1999) but remains unexplored as an antecedent of IB-related TMT decisions and outcomes. Network density refers to the degree to which TMT members are connected to each other. Many TMTs might appear to be completely connected if we consider only binary ties. However, researchers could use data on tie strength to identify various subgroups within the TMT network (e.g., Wasserman & Faust, 1994). This would allow them to investigate the impact of these sub-groups on the decisions TMTs make. This line of investigation could leverage research on networks that considers both such structural factors, such as cliques, and personality factors (e.g., Tasselli & Kilduff, 2018) to derive additional implications for IB-related decisions and outcomes.

Finally, TMT co-location, as introduced by Cannella, Park, and Lee (2008) has bearing on the TMT structure and is especially relevant for IB scholars. Future research should examine whether and how TMT co-location or the geographic dispersion of TMT members affects strategic choices and outcomes.

The ideas above illustrate that there is ample opportunity to broaden the scope of research on TMT structure in IB. This effort is likely to require the collection of primary data (e.g., in-depth qualitative data or survey data), since it might be challenging to investigate many of these factors using archival data.

TMT Processes. Even though research has looked at how TMT processes affect the scope of a firm's internationalization, its location choices, and performance, work that has looked at how such processes affect the firm's internationalization process and entry mode choices is largely lacking. Hence,

future research can expand its consideration of the decisions and outcomes that are studied. With respect to the internationalization process, such research could explore how processes that are internal to the TMT align with various aspects of the firm's internationalization process, such as the pace and rhythm of internationalization. With respect to entry mode choices, future research can consider the impact of TMT's cognitive processes. For example, Maitland and Sammartino (2015) highlighted that cognitive processes play an important role in assessing factors like political risk, which influences entry mode choices. In this way, studying how the cognitive processes within the TMT shape the team's perception and assessment of factors that influence entry mode choices can provide new insights.

Most research in this area has focused on the cognitive and social processes within TMTs, with less attention being devoted to political processes in TMTs. Therefore, future work that systematically unpacks different power dynamics in TMTs and explores the consequences of these on MNE' choices would be likely to refine and advance our knowledge.

Finally, because many studies use quantitative and cross-sectional data (Panel E, Table 1), they are able to make only indirect inference about the processes within the TMT and do not directly observe or measure these processes. To address these shortcomings, we encourage in-depth longitudinal qualitative analysis, along the lines of Denis, Lamothe, and Langley's (2001) study of the leadership processes that underlie strategic change, or mixed-method approaches that combine qualitative and quantitative analysis (e.g., Hurmerinta-Peltomaki & Nummela, 2006; Nielsen et al., 2020).

TMT Governance. Most of the literature on TMT governance in IB has focused on how financial compensation affects the behavior of TMT members, and of TMT leaders in particular (e.g., Woo, 2019). However, research in other areas suggests that non-financial compensation might also affect TMT behavior and choices (factors such as status, e.g., Anderson, Hildreth, and Howland [2015], or political promotions, e.g., Cao et al. [2019]). Incorporating these largely unexplored directions into our understanding is likely to require drawing from theories in other fields, such sociology, psychology, and human resource management that have been under-utilized in the TMT governance literature in IB, which has predominantly relied on agency theory.

Even though research has explored how managerial (e.g., Carpenter et al., 2003) and institutional ownership (e.g., Musteen et al., 2009) affect TMTs' international strategic choices, state ownership has

received little attention. Scholars in IB highlight the importance of state-ownership for how firms internationalize, especially in emerging markets (e.g., Cui & Jiang, 2012; Cuervo-Cazurra, Inkpen, Musacchio, & Ramaswamy, 2014). Because there are likely multiple mechanisms through which state-ownership affects firms' international strategies, it would be relevant to explore whether there are also mechanisms that work through TMT governance.

Mechanisms

We believe future research would benefit from expanding and refining the theoretical mechanisms underlying the relationship between TMT elements and IB strategic decisions and outcomes. This can be done in three ways: (1) by becoming more theoretically pluralistic, (2) by making advancements on the operationalization front to ensure that operational definitions of TMTs are sufficiently aligned with the theoretical mechanism that are being put forth, and (3) by dealing more adequately with endogeneity so that empirical evidence clearly identifies support for the discussed mechanisms.

More Systematic Integration of the Literature on TMTs into other Theoretical Perspectives in IB. UET is by far the most dominant theoretical perspective in the TMT literature in IB, with 54% of the studies we reviewed being grounded in UET (Table 1, Panel B). This suggests that the literature on TMTs in IB is not as theoretically pluralistic as that on other important IB phenomena (e.g., entry mode choices). Yet, many prominent theories in IB recognize the importance of decision-makers in general and often that of the TMTs specifically. While this recognition has been beneficial, insights from the TMT literature in IB have not always been systematically integrated into these prominent theories such as transaction cost economics (TCE). Doing so has the potential to refine and advance these theories, while also enhancing the TMT literature in IB, by making it theoretically more pluralistic.

We use TCE to illustrate this point. Even though TCE has offered valuable insights into the international scope of the MNE and entry mode choices (Cuypers, Hennart, Silverman, & Ertug, 2021), research in TMTs in IB has drawn relatively scarcely form TCE (and vice versa). TCE acknowledges the importance of decision-makers in that they are rationally bounded, and that they might act opportunistically or unreliably. However, TCE remains agnostic about whether governance choices and important strategic decisions are made by a single decision-maker or whether they are influenced by deliberations in TMTs. Furthermore, there has been little effort in the TCE literature to explore

heterogeneity across decision-makers regarding their bounded rationality. Since it has been shown in the TMT literature that both those who make the decisions and how they are made have an impact on firms' choices, explicitly acknowledging the role of the TMTs and integrating insights from the literature on TMTs in IB might advance TCE in several ways. First, this might yield insights into why different firms make different governance choices under similar circumstances. For example, teams with certain compositional characteristics or decision-making processes might be less cognitively constrained than others. Hence, exploring how TMT characteristics might function as antecedents of actual or perceived transaction costs might offer new insights into firms' governance choices. Second, not all decision-makers will incorporate transaction costs and exchange hazards into their decision-making to the same extent. A small body of work in TCE has explored the role of risk preferences in decision-making (e.g., Chiles & McMackin, 1996), and the TMT literature has shown that teams differ in their risk preferences (e.g., Carpenter et al., 2003). As a result, it is plausible that TMTs weigh transaction costs and exchange hazards differently in their decision-making, which would lead to differences in entry mode choices or other decisions that relate to a firm's international scope. Our goal is not to provide definitive answers to how insights from the TMT literature in IB can be integrated in TCE scholarship but rather to illustrate that the potential exists, as it does in other prominent IB theories.

There are also opportunities to further integrate work from sociology and organization theory into the study of TMTs in IB research. Even though some studies in our review do draw from social network research, the different perspectives in this research provide a large and growing pool of insights to draw from (e.g., Cuypers, Ertug, Cantwell, Zaheer, & Kilduff, 2020). For example, homophily (the tendency of individuals to associate with similar others), influences the formation of founding teams (e.g., Ruef, Aldrich, & Carter, 2003), and the performance of R&D teams (e.g., Reagans, Zuckerman, & McEvily, 2004). Therefore, canvassing this work for insights to adapt to the study of the composition of TMTs, the social processes in TMTs, and the performance consequences of homophily in TMTs is likely to generate new insights. The IB focus makes the relevance of nationality, which has been shown to be an important dimension for homophily in multinational firms (e.g., Ertug, Gargiulo, Galunic, & Zou, 2018) especially relevant, as compared to TMT research in mainstream strategy.

In sum, we believe that there are opportunities to more systematically integrate insights from TMT

research into other theories in IB, both to refine and extend those theories and to advance the TMT literature in IB.

More Carefully Considering the Operational Definitions of TMTs. Earlier in our review, we provided a conceptualization of TMTs that is less restrictive and more flexible than some others used in the literature, in that it does not assume that the TMT consists of a fixed set of executives and it allows for different TMTs to be present at, or across, different (hierarchical) levels of the MNE. We suggest that this is important to capture the reality in MNEs, given that MNEs often have dispersed power structures in which sub-unit managers have substantial decision-making authority and power, and that the group of people who have the power to affect strategies and their outcomes can vary depending on the strategic issue under deliberation (e.g., Amason, 1996).⁸ This does not only have conceptual implications, it also affects the operational definitions of the TMT.

In most studies the TMT is considered to consist of the most senior executives in the MNE at the HQ level. However, studies interpret this differently in operationalizing it. Some studies, explicitly or implicitly, consider the CEO to be the key TMT member to study (e.g., Daily et al., 2000), others identify the TMT as all the executives who also serve on the board of directors (e.g., Piaskowska & Trojanowski, 2014), while others still use broader operational definitions that range from the TMT consisting of executives who hold the most senior positions (e.g., Hermann & Datta, 2005; Roth, 1992), to consisting of all the executives who are identified in SEC filings or the annual report as members of the executive team (e.g., Mohr & Batsakis, 2019; Nielsen, 2009). We provide a breakdown of how studies have operationalized the TMT in Panel A of Table 1.

These differences in the operational definitions in the literature do not have to be a concern as such, provided that there are valid theoretical reasons for them. However, most studies do not provide a theoretical justification for their choice. As far as we can infer, in general the operational definition seems to be driven primarily by data availability, rather than by the assumptions and mechanisms of the theoretical framework. While several of the above-mentioned operational definitions, and others that are

⁸ This issue has been acknowledged in the broader TMT literature (e.g., Hambrick, 2015), but it is likely to apply even more to IB research and in MNEs. For example, some important decisions might require substantial local knowledge and therefore senior local managers might be included in the decision-making body and be in a position to significantly influence the decision-making process with the input they provide.
used in the literature, might be suitable to explore some research questions, they might not be for others. For example, focusing solely on the most senior executives in the MNE as constituting the TMT might be appropriate to explain the MNE's overall international scope, but might be less appropriate in studying how local subsidiaries are structured and run. In the latter case, decisions might be made by a TMT at the local subsidiary level or a TMT that spans different levels of the MNE's hierarchy.

With these points in mind, we encourage researchers to think more carefully about who constitutes the TMT, keeping in mind their research question and the strategic choice or outcome under consideration, and to provide a clear justification for their operational definition of TMTs. This should ideally be done on theoretical grounds, based on the assumptions and mechanisms invoked in the study's theoretical development, but it would also be helpful to support it by qualitative evidence or by using surveys.⁹ Being careful about operational definitions in this manner might also yield measures that facilitate the fruitful exploration of mechanisms that might operate at – or across – different levels of analysis, which have not received much attention in the TMT literature in IB.

Such efforts to keep in mind one's research questions, as well as the theory and mechanisms invoked, when deciding on the operational definition of TMT, will yield more accurate TMT measures (e.g., Aguinis, Ramani, & Cascio, 2020) and more compatible findings across studies.

Endogeneity. The prevalence of endogeneity – broadly speaking situations where one or more explanatory variables are correlated with the error term (e.g., Greene, 2012) – in IB research and the challenges in dealing with it have been well documented (e.g., Li, Ding, Hu, & Wan, 2021; Reeb, Sakakibara, & Mahmood, 2012). Despite the awareness that has been raised and the guidance that has been offered, the majority of the studies in our review (including recent ones) lack an adequate strategy to deal with endogeneity, and in some cases do not acknowledge the issue at all. Specifically, as reported in Panel D of Table 1, (without going into whether the approaches used were adequate) only 25 (19%) of the quantitative studies in our sample took any substantial steps to deal with endogeneity. This seems to be genuinely problematic for a research area that is particularly prone to several endogeneity-related issues

⁹ Some survey-based studies ask the CEO to identify who should be considered as part of the TMT (e.g., Athanassiou & Nigh, 2002; Anthanassiou & Roth, 2006). This could, like gathering qualitative data, be a fruitful approach to establish who should be considered as being part of the TMT in empirical analysis.

as we will highlight below. Ignoring or inadequately dealing with endogeneity might lead to biased findings, the identification of non-existing relationships, failing to identify existing relationships, or inappropriate causal inference (Aguinis et al., 2020; Greene, 2012). Hence, this raises questions about the validity of some of the findings that have accumulated in the literature on TMTs in IB.

The source of endogeneity that is typically discussed in the TMT literature (e.g., Bromiley & Rau, 2016) arises from the observation that TMTs are not designed or governed randomly. Instead, they are likely to be designed and governed in a way that will result in the greatest expected performance. As a result, researchers need to consider selection issues, especially in studies that look at the effects of TMTs on performance outcomes. In conducting our review, we also identified a second concern for endogeneity. Namely, we noticed a considerable overlap between strategic choices that – across different studies – seem to act as both a consequence and antecedent of some TMT factors. This raises causality concerns and might also give rise to a dynamic form of endogeneity (both the dependent variable and some of the key independent variables are determined by past levels of the dependent variable). Therefore, it is important for researchers to put greater effort and care into understanding the nature of causality underlying the relationships they study, and to be cautious in making inferences about the direction of causality from their findings. This point also highlights the importance of considering dynamic panel models (e.g., Arellano & Bond, 1991) if the research design or the characteristics of the data require them.

A third potential source of endogeneity in research on TMTs, and perhaps the one that is most salient in IB research, arises because many important IB decisions are not made in isolation and TMTs influence many of these different decisions, which causes *simultaneity* issues. For example, firms often decide on the location they want to enter and the entry mode at the same time. Even in cases where these two decisions are not made simultaneously in the technical sense, the entry mode decision is likely to be affected or constrained by the location. Similarly, a firm's scope of internationalization and the processes by which it internationalizes are likely to be intertwined, reciprocally influencing each other. Simultaneity issues arise because in many cases these different – but inter-related – strategic choices are influenced by TMTs, and possibly even by the same specific TMT factors. As a result, it becomes unclear whether the effect of a particular TMT factor on a focal choice is the result of this factor's direct impact on that choice, or this factor impacting an inter-related strategic choice, thereby indirectly influencing the focal choice.

Therefore, it becomes difficult to isolate any one effect, without considering the effect of a factor on two (or more) outcomes simultaneously.

Given that a variety of econometric approaches are available to deal with each of these endogeneity issues, we strongly encourage researchers to explore these approaches, in line with the specific challenges that arise from their research questions and contexts. Since a single analytical approach might not fully mitigate most endogeneity concerns, we also encourage researchers to combine multiple analytical techniques, or to combine quantitative and qualitative methods (for a discussion of methodological and analytical triangulation see Nielsen et al., 2020).

Our discussion about endogeneity suggests that in addition to increasing the theoretical plurality, the mechanisms considered, and the careful consideration of the operational definitions of TMTs, it is also important to improve the alignment between the evidence presented and the claims made about a particular mechanism or the direction of causality.

Contextual factors

As Eden and Nielsen (2020) recently re-iterated, exploring contextual issues is critical for understanding the boundary conditions within which theories are applicable to the IB context. Therefore, another potential growth area for future research is to further explore how IB-related contextual factors act as contingency factors and boundary conditions of the relationships between TMT elements and firms' strategic choices and performance outcomes. We discuss two types of contingency factors: those that are internal to the MNE and capture the unique nature of the MNE, and those that are external IB- related factors, such as countries' institutions.

Further Incorporating the Unique Nature of the MNE. To illustrate how future research can advance theory by incorporating the distinctive and unique attributes of MNEs further into TMT research we discuss two potential avenues.

First, and in line with most research on TMTs in IB, future research could continue to focus on the TMTs at the HQ level but explore in greater depth how the characteristics of a given MNE affect its TMT at that level. MNEs differ from each other internally in meaningful ways, both across and within countries, and such differences are likely to impact TMTs. For example, MNEs often vary in terms of their formal and informal structures (e.g., Aharoni, 1996), organizational culture (e.g., Hofstede, 1994), the nature of

their HQ-subsidiary relationships (e.g., Meyer, Li, & Schotter, 2020), strategies (Bartlett & Ghoshal, 1989; Prahalad & Doz, 1999), and compensation practices (e.g., Schuler & Rogovsky, 1998). At least some of these differences are likely to impact how TMTs are designed, how they operate, TMTs' strategic choices, and the outcomes of those choices. To illustrate this, we can consider how MNEs' overarching strategies might impact TMTs using Bartlett and Ghoshal's (1989) typology of MNEs. In MNEs that pursue a multidomestic strategy, decision-making tends to be more decentralized, and subsidiaries enjoy more autonomy, while in MNEs that pursue a global strategy decision-making tends to be centralized at HQ and subsidiaries are less autonomous and more tightly controlled. As a result of these differences in autonomy and centralization in decision-making, the MNEs' strategy might affect the extent and nature of the influence that TMTs at the HQ level (and at the subsidiary level) have over strategic decisions and outcomes, as well as the strategic decisions they partake in. Hence, extending our theories to further contextualize TMTs using the internal characteristics of the MNEs, especially those characteristics that vary across countries, is an avenue that is important to explore further.

Second, future research might also consider a shift in the level of analysis, to focus more on TMTs at the subsidiary or the regional HQ levels. As the large majority of the studies in our sample focus on TMTs at the HQ level, little theoretical attention has been directed at TMTs at other levels. Nevertheless, a few studies highlighted the theoretical rewards of pursing an alternative route (e.g., Li et al., 1999; Nuruzzaman et al., 2019; Sekiguchi et al., 2011), and further efforts in that direction could parallel work in a related stream of research on board of directors. In that stream of work, investigating the boards of directors of subsidiaries and JVs has resulted in the exploration of new questions and led to novel theoretical insights (e.g., Cuypers, Ertug, Reuer, & Bensaou, 2017; Reuer, Klijn, van den Bosch, & Volberda, 2011). There is potential in looking at TMTs at different levels because these are likely to differ in two important ways from TMTs at the HQ level.

TMTs at the subsidiary or regional HQ level might differ in *degree*, which allows research to explore new ranges for existing theoretical constructs. For example, subsidiaries often have shared ownership with a local firm. As a result, TMT members are often appointed by both parent firms. Such an arrangement might lead to more role conflict and ambiguity, and different degrees of interdependencies between TMT members (e.g., Li et al., 1999) than those typically observed in HQ TMTs. Even in cases

where there is no shared ownership, we might still see differences with respect to the levels of authority, compensation, and the cognitive challenges between TMTs at lower levels and those at the HQ level. Moreover, TMTs at lower levels might have different levels of diversity and corresponding levels of faultlines between local members and members coming from the MNE's home country. Such differences, in degree, between TMTs at lower levels and at the HQ level provide an opportunity for researchers to explore if, or when, established relationships at the HQ level hold across different levels.

TMTs at lower levels of the MNE might also differ in *kind*, which allows future research to develop or explore new constructs and mechanisms altogether. For example, TMTs at lower levels are generally governed in a different way than the TMT at HQ. As a result, there might be different, formal and informal, incentives and enticements that influence the behavior of TMTs at these levels. For example, TMT members at lower levels might be motivated by potential promotions to a higher level within the MNE. In addition, TMTs at lower levels are often responsible for making different types of decisions than those that are made at the HQ.

Finally, rather than focusing on TMTs at the HQ or subsidiary level alone, future research could take a multi-level approach and focus on the fact that the managers in a TMT can come from different (hierarchical) levels of the MNE, as well as from different units of the MNE (Eden & Nielsen, 2020). As we indicated earlier, this might make the MNE a particularly suitable setting to study the implications of TMT member co-location (or the geographic dispersion of TMT members) on strategic choices and outcomes. Furthermore, investigating the geographic dispersion of TMT members might also create opportunities for work on TMT faultlines in IB. For example, work in the broader faultline literature (e.g., Bezrukova, Jehn, Zanutto, & Thatcher, 2009) as well as some work in the TMT literature (e.g., Li & Hambrick, 2005; Li, Xin, & Pillutla, 2002) has emphasized the importance of team members' identification with the team in mitigating the potential downsides of faultlines. Hence, future work could explore the implications of having TMTs with members who are not co-located, or come from different units or hierarchical levels of the MNE, on TMT members' identification with the team or with different parts of the organization (e.g., with the MNE as a whole or with a specific unit within the MNE). It would be particularly interesting to examine how this, in turn, might create or activate dormant faultlines (e.g., Thatcher & Patel, 2012) and affect the workings of the TMT.

In sum, we see potential for future research to incorporate the MNE's uniqueness further into TMT research. Among other avenues, this can be done through contextualizing the TMT at the HQ level using the internal characteristics of the MNE or by looking at TMTs at different levels of the MNE. Efforts like these might also present an opportunity for IB scholars to contribute to the TMT literature at large by potentially introducing new theoretical insights.

Further Exploring External IB-related Contingency Factors and Boundary Conditions. Even though we came across studies that nuance TMT effects by looking at how environmental factors act as contingencies, we noticed (in line with Yamak, Nielsen, & Escriba-Esteve's [2014] observation) that the factors that are considered by most of these studies, such as industry-level sales uncertainty and industry munificence (e.g., Carpenter & Fredrickson, 2001; Nielsen & Nielsen, 2013), are not matters specific to IB. Therefore, there is both an opportunity and a need to further consider specific international environmental factors that might act as contingency factors or boundary conditions for the relationships that have been studied in the TMT literature in IB. This is particularly important given that many of the insights used in the TMT literature in IB originate from the broader TMT literature, which is Anglo-Saxon centric (this is also the case in our sample, with 40% of the empirical studies) and has often not considered international factors in a dedicated manner.

We know from the larger IB literature that factors such as compensation and governance practices (e.g., Aguilera & Jackson, 2010; Schuler & Rogovsky, 1998), the way teams operate or perceptions of what constitutes collaborating in a team (e.g., Gibson & Zellmer-Bruhn, 2001), and how managers make decisions and lead (e.g., Chen & Li, 2005; Hofstede, Van Deusen, Mueller, & Charles, 2002) differ substantially across countries. Therefore, it is reasonable to expect that there will also be variations in the different elements of TMTs across countries, and also in how TMTs operate, in terms of how these elements relate to outcomes. Furthermore, some of the mechanisms that have been proposed might be more or less relevant depending on the formal and informal institutions in the country in which the TMT is operating (Yamak et al., 2014). For example, several studies have highlighted the benefits of having national diversity within TMTs (e.g., Nielsen & Nielsen, 2013). However, it is unclear whether that finding is generalizable across countries. Such diversity might be beneficial in countries that are culturally loose, such as the U.S., while in countries that are culturally tight (i.e., countries where people adhere

more to social norms and tolerate deviance less [Gelfand et al., 2011]) its benefits might be smaller or altogether disappear.

Embracing the diversity in formal and informal institutions across countries, and then exploring and theorizing on how these might be contingency factors or boundary conditions, is likely to generate new insights about various aspects of TMTs. One area that might provide guidance on such an approach is the comparative governance literature, which has been very successful in developing a similar effort (e.g., Aguilera et al., 2019). This stream of work, which draws heavily from the comparative capitalisms approach in institutional theory (e.g., Aguilera & Jackson, 2003; Jackson & Deeg, 2008), has provided systematic evidence that country institutional contexts play a significant role in shaping the governance practices within MNEs, and that governance practices differ significantly across countries. A key topic in this literature is how differences in national ownership patterns (e.g., in terms of the types of owners, the concentration of ownership, and the control rights owners have) affect corporate governance practices and the consequences of these practices. Similarly, research could explore how differences in national ownership patterns might affect the nature of the relationships between TMT elements and firms' strategic choices and performance outcomes. The comparative governance literature has also provided evidence that the impact board of directors have on strategic choices and outcomes differs between emerging markets and advanced economies, due to differences in institutions or institutional voids (Aguilera et al., 2019). Accordingly, future research could more systematically compare how TMTs in MNEs from emerging markets have a different impact on the MNE's strategic choices and outcomes than their counterparts from developed economies. In addition, the informal institutions of a country are also likely to matter. For example, two similarly composed TMTs might end up making different strategic choices because they operate in contexts that are characterized by different values, norms, and informal practices, which might affect how the TMTs prioritize strategic alternatives. In sum, we see potential in exploring how some of the institutional factors (e.g., ownership patterns, institutional voids, values, norms, and informal practices) that have been central in the comparative governance literature might act as contingency factors or boundary conditions for relationships that have been established in the TMT literature in IB.

Going down this route will also have empirical implications for researchers. Our review (Table 1,

Panel C) revealed that the vast majority of studies use a sample that consists of TMTs in firms that originate from a single home country (81%), which most commonly is a developed Anglo-Saxon country (e.g., Canada, US, and UK) (40%). Hence, in order to advance our knowledge, researchers might need to explore different empirical contexts and designs, including ones with firms that originate from multiple countries or from countries that are characterized by different institutions.

Finally, other external non-institutional contextual factors might also matter as contingency factors. For example, after some decades of a significant trend toward globalization, we might be entering a period of de-globalization, or at least a period in which globalization is received with greater skepticism than has been the case (e.g., Cuervo-Cazurra, Doz, & Gaur, 2020). It remains unclear whether the same TMT mechanisms that were useful in explaining internationalization remain equally relevant in these changed contexts, or whether there might be a need to re-think some of what we know about how TMTs impact firms' international strategic choices. For example, nationality diversity of the TMT has been shown to have positive effects on firms' internationalization and performance (e.g., Gong, 2006; Nielsen, 2010a) during periods of globalization. Is that same diversity still an advantage, less of an asset, or a liability, in times or places where globalization is viewed with more suspicion and where there might be fewer foreign and more domestic opportunities?

In general, we see potential for more work that improves our understanding of contingency factors or boundary conditions for the relationships between TMT elements and IB outcomes. We also believe that this is an area where research on TMTs in IB can generate insights, which then have the potential to cross-fertilize to the TMT research in strategic management.

Outcomes

There are also future research opportunities that relate to the outcomes that are studied in the TMT literature in IB. First, we discuss the potential for broadening the outcomes that are studied using TMTs factors as explanatory variables by exploring new strategic phenomena as outcomes (i.e., expanding the right hand-most box in our framework in Figure 1). Second, we propose novel ways in which the four TMT elements could be studied as outcomes (i.e., the dashed lines in our framework in Figure 1). In particular, we focus on how contextual factors might influence different aspects of the four TMT elements.

Exploring new strategic phenomena as outcomes. Our review revealed that the TMT literature in

IB has focused largely on traditional topics of longstanding importance in IB as outcomes (e.g., location choices, entry mode choices, and the degree of internationalization). While these issues will no doubt continue to be important, it is important for the literature on TMTs in IB to also investigate new strategic phenomena using TMT elements as explanatory variables to remain relevant. For example, there are increasing pressures for MNEs to engage in CSR and to operate in a sustainable way. It has been acknowledged that TMTs and their leaders play an important role in decisions about these matters (e.g., Flammer, Hong, & Minor, 2019; Lewis, Walls, & Dowell, 2014; Reimer, Van Doorn, & Heyden, 2018). However, little attention has gone into systematically investigating how TMTs play a role in CSR and sustainability issues that are specifically international (for exceptions see Waldman et al. [2006] and Slater and Dixon-Fowler [2009]). Hence, future work could explore questions such as how TMTs play a role in orchestrating CSR and sustainability efforts in the MNE, how TMTs play a role in developing ethical global value chains, or how they decide on these matters with respect to the locations under consideration, and how the nationality composition or country-experience of the TMT matters for these outcomes.

Closely related to CSR and sustainability issues, there is also growing attention in IB research towards the role that IB and the MNE play in society and how the MNE might be able to help address "grand societal challenges" (Buckley, Doh, & Benischke, 2017; Eden & Nielsen, 2020) such as inequality (Bapuji, Ertug, & Shaw, 2020). Thus, future research in IB could explore how TMTs might help (or constrain) MNEs to play a part in addressing these "grand societal challenges".

In addition, recent technological trends have brought certain phenomena to the foreground in IB research, again providing opportunities for future TMT research. For example, cross-border (digital) platforms and ecosystems have gained in importance in recent years (Nambisan, Zahra, & Luo, 2019). However, the role TMTs play in developing and managing such platforms and ecosystems remains unexplored.

New ways of studying TMT elements as outcomes. Our review showed that there is a substantial body of work that has studied TMTs as an outcome rather than as an antecedent. Accordingly, we also identified several potential directions for researchers focusing on TMTs as an outcome.

Studies have identified firms' prior strategic choices (e.g., Athanassiou & Nigh, 1999, 2000) as important antecedents of each of the four conceptual elements of TMTs. Furthermore, researchers have

also looked at how one conceptual element of TMTs (e.g., TMT composition) affects another element (e.g., TMT structure). However, while there are some notable exceptions (e.g., Rickley, 2019), our review did not reveal a body of work in IB that systematically explores how IB-related environmental factors, such as a country's institutional environment, might influence some of the conceptual elements of TMTs. This is striking for two reasons. First, some studies in the broader TMT literature have shown that non-IB environmental factors indeed impact the design of TMTs. For example, Norburn and Birley (1988) and Pegels, Song, and Yang (2000) found that industry characteristics influence the composition of TMTs. These findings suggest that IB-related environmental factors might also be relevant. Second, the study of institutions and their consequences is a central topic in IB research (e.g., Dau, Moore, & Kostova, 2020; Tihanyi, Devinney, & Pedersen, 2012). Therefore, it is of interest to many IB scholars to understand how institutions might relate to another important aspect of MNEs, i.e., their TMTs.

Beyond highlighting the importance of institutions in general, we also believe that to remain vibrant and relevant it is important for the literature on TMTs in IB to investigate how new trends in the external environment affect the elements of TMTs. For example, we have been witnessing a surge in nationalism in different parts of the world (Financial Times, 2019). Work in social psychology and some emerging work in management (e.g., Ayub & Jehn, 2006; Ertug, Cuypers, & Dow, 2018) suggests that people and firms from more nationalistic countries are less willing to interact with foreign individuals or firms and might display favoritism towards hiring and working with locals. Hence, the rise in nationalism might have important implications for the composition of TMTs, for example in terms of nationality diversity. Furthermore, nationalism might affect the processes that occur within TMTs, particularly with respect to interactions between individuals from countries with different levels of nationalism. Since nationalism might make the distinction between ingroup members (TMT members of the same nationality) and outgroup members (TMT members of other nationalities) more distinct (e.g., Ertug et al., 2018) there might be interesting implications of the rise in nationalism for TMT faultline research.

Another recent trend is the digital transformation we are undergoing that is having a profound impact on many facets of business. It would be surprising if this would leave TMTs untouched. As one example, digitalization has led to the widespread adoption of virtual teams. In virtual teams, members – who are often geographically dispersed – work interdependently with limited face-to-face contact and

primarily using digital communication media (e.g., Dulebohn & Hoch, 2017). This raises interesting questions, considering that prior research has established the importance of co-location (Cannella et al., 2008), about the extent to which TMTs might also become increasingly virtual, and what the consequences of this would be, for example for TMT composition (e.g., will geographically distant managers be included more frequently in TMTs?), structure (e.g., will there be changes in the kind and degree of inter-dependencies between TMT members?) and processes of TMTs (e.g., will social dynamics within TMTs be affected?). While these questions are relevant for firms in general, they are particularly pertinent for the MNE, with its geographically dispersed activities and managers. The growing literature on (global) virtual teams can inform us about how TMTs might be affected by digitalization and the move to virtual teams (e.g., Klitmøller & Lauring, 2013; Martins, Gilson, & Maynard, 2004).

IMPLICATIONS FOR PRACTICE

It is also essential that the TMT literature in IB informs management practice. We note two important aspects regarding this. Namely, it is crucial that research on TMTs in IB remains relevant in terms of the topics it covers and that it provides clear guidance to practitioners. We already touched upon the former aspect in the previous section. Nevertheless, we want to emphasize that breaking new ground in terms of the topics and phenomena that are studied is important not only to keep making academic progress but is also necessary to remain (and become more) relevant for practitioners.

With respect to the second aspect, it is important that researchers translate their findings to practical implications that are actionable in the field. As is perhaps the case with much research in management, our review revealed that the majority of studies fail to do this in a clear, earnest (meaning to a degree that goes beyond paying mere lip service), and convincing manner, and some do not even discuss any practical implications of their findings at all. However, there are notable exceptions (e.g., Georgakakis & Ruigrok, 2017; Georgakakis et al., 2017; Georgakakis et al., 2018; Li et al., 1999) that discuss a number of practical implications that guide practitioners on issues such as outside succession of the TMT leader, executive selection, and TMT faultlines. These studies, as well as others that provide explicit guidance to practitioners, can serve as inspiration for future researchers on how to translate their empirical findings into practical implications and guidelines.

CONCLUSION

Over the last decades a substantial body of work has developed that looks at international issues related to TMTs. This work has generated many new insights and valuable contributions to the literature on TMTs and to the IB literature at large. Studies have shown that TMTs impact many important aspects of firms' international strategies, such as their scope of internationalization, where they internationalize, and how they enter a country, as well as the performance outcomes of these choices. Our review consolidates extant knowledge in this area and provides a road map for navigating the large and diverse literature on TMTs in IB. We also look ahead and identify future research opportunities that are based on observations we made throughout our review and relate to all the components of our organizing framework. We hope that our review will help scholars to take stock of the existing literature on TMTs in IB and identify important and relevant research questions, which will motivate continuing and new waves of scholarship on this topic.

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Figure 1: Conceptual organizing framework

TMT ELEMENTS

TMT Composition

- The quantity/level of (demographic) characteristics
- Diversity/heterogeneity/dispersion of (demographic) characteristics

TMT Structure

- Interdependence between TMT members
- Role overlap and ambiguity
- Co-location
- TMT size

TMT Processes

- Normative behaviors
- Social and political dynamics within TMTs
- Information flows between TMT members
- Group decision-making
- Power dynamics within TMTs

TMT Governance

- Financial incentives (equity and non-equity)
- Implicit inducements
- Board control/ownership

Note:

- TMT elements as an antecedent of IB strategic choices or performance outcomes.
- ---> IB-related contextual factors as moderators of the relationship between TMT elements and outcomes.
- TMT elements as a consequence of IB-related factors (which in our framework are covered under outcomes or contextual factors)

Internal

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External

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Panel A: Operational Definitions of TMTs (top 10)		Panel B: Dominant Theory Used in a Study (top 10)		Panel C: Context of empirical studies (top 10)	
Definition	# of Studies	Theoretical Perspective	# of Studies	Home country/territory of the TMT	# of Studies
TMT operationalized as the CEO	50	Upper echelons theory	75	United States	48
TMT defined as the executive team reported in the	30	Agency theory	13	China	15
annual reports		Resource based view	12	Germany	10
TMT members as defined by the CEO of the company	19	Human capital theory	6	Taiwan	7
(direct reports)		Information processing theory	5	Switzerland	5
TMT defined as including the Chairperson of the Board,	10	Institutional theory	3	Spain	4
Vice-Chairperson, Chief Executive Officer, Chief		Network theory	3	United Kingdom	4
Operating Officer, President, Senior Vice-Presidents,		Social cognitive theory	3	Canada	3
through to Executive Vice-Presidents Highest ranking titles	4	Behavioral theory of the firm	2	India	3
	4	Resource dependence theory	2	Japan	2
TMT as entrepreneurs/founders	4	Other theories/no clear principal theory	16	Other countries	12
Board of directors and key executives	3			Multiple countries	25
TMT defined as IJV general managers	3				
Top managers defined as all the managers above the vice-president level	3				
Appointed subsidiary top executives	2				
Other operational definitions	10				

Table 1: Characteristics of the studies in our review sample

Panel D: Endogeneity Strategy	Panel E: Methods and Types of Data		
Endogeneity Strategy	# of Studies	Methods and types of data	# of Studies
Two-stage Heckman/instrumental variable	16	Qualitative	3
Matching	2	Quantitative	132
Two-stage least squares	2	Archival data	93
Durbin–Wu–Hausman causality test	1	Survey data	37
Dynamic Panel models with endogenized lagged	1	Field experiment	1
dependent variable		Experiment	1
Experiment	1	Mixed-method	3
Lagged non-endogenized dependent variable	1		
Quasi/natural-experiment	1		
No endogeneity strategy	107		

Table 2: Research guidelines and directions for future research

TMT ELEMENTS

TMT Composition

- Integrating relevant advancements from related literatures. For example, building on insights from transfer theory in the learning literature to refine our understanding of how TMTs' experience affects IB related choices and outcomes.
- Exploring and contrasting the effects of diversity on dimensions other than nationality, such as culture, language, and religion. This effort could provide new insights into the effects of diversity and faultlines, as these dimensions can be a source of diversity and trigger or dissipate faultlines.
- Considering characteristics of TMTs that are more psychological and deep-level, such as the team's cultural sensitivity and cultural intelligence.
- Investigating configurations of characteristics (e.g., using qualitative comparative analysis) rather than focusing on single compositional characteristics or characteristics side-by-side (independent from each other).

TMT Structure

- Broadening the contextual scope of investigation beyond the (China-based) IJV context.
- Exploring how understudied structural characteristics, such as the presence of certain roles, role interdependence, the distribution of power within the TMT, and the size of the TMT affect IB choices and outcomes.
- Taking a network approach to investigate how structural characteristics of intra-TMT networks, such as the hierarchical orderings within them or cliques, impact IB-related choices.
- Examining whether and how TMT co-location or the geographic dispersion of TMT members affect IB-related choices and outcomes.

TMT Processes

- Studying how TMT processes impact firms' internationalization processes and entry mode choices.
- In addition to studying the cognitive and social processes within TMTs, examining how power dynamics and power differentials in TMTs affect MNEs' choices.
- Using in-depth longitudinal qualitative analysis, or approaches that combine qualitative and quantitative analysis, to more directly observe and measure the processes underlying TMTs' decision-making in MNEs.

TMT Governance

- Exploring how non-financial incentives (e.g., status or political promotions), in addition to financial compensation, affect TMT behavior and choices.
- Investigating how ownership other than managerial and institutional ownership, such as state-ownership (especially in emerging markets), affects MNEs' choices and outcomes.

MECHANISMS

More Systematic Integration of the Literature on TMTs into other Theoretical Perspectives in IB

- Refining and advancing theories in IB (e.g., TCE) by more explicitly recognizing the importance of TMTs in decision-making and by integrating insights from the TMT literature. For example, exploring how TMT elements moderate or mediate the mechanisms in these theories.
- Making the TMT literature in IB theoretically more pluralistic by integrating insights from other disciplines and theories other than UET (e.g., sociology and organization theory) to identify new mechanisms that link TMT elements with IB-related choices and outcomes.

More Carefully Considering the Operational Definitions of TMTs

- More consciously considering operational definitions and measures of TMTs. Moving away from the assumption
 that the TMT necessarily consists of a fixed set of the most senior executives at the MNE's HQ, and aligning the
 operational definition with the research question, the theoretical mechanisms involved, and the choice or outcome
 being studied.
- Providing a clear theoretical motivation to justify the study's operational definition of TMTs and offering empirical support (e.g., qualitative evidence) for the appropriateness of the operational definition, given the specificities of the study.

Endogeneity

- Acknowledging endogeneity issues more explicitly and dealing with them adequately. Depending on the research context this might focus on selection (e.g., TMTs are not designed or governed randomly), causality (e.g., strategic choices can act both as consequence and antecedent of some TMT factors), or simultaneity (e.g., many important IB decisions are not made in isolation and TMTs influence many of those decisions).
- Engaging in methodological and analytical triangulation by combing multiple analytical techniques or combining quantitative and qualitative methods, since a single approach is unlikely to mitigate most endogeneity concerns.

CONTEXTUAL FACTORS

Further Incorporating the Unique Nature of the MNE

- Contextualizing the TMT at the HQ level using the internal characteristics of the MNE. Exploring in greater depth how the characteristics of a given MNE (e.g., its strategy, structure, culture) affect the TMT's choices and the outcomes of their choices.
- Focusing more on TMTs at the subsidiary or the regional HQ levels. Exploring how subsidiary or regional HQ level TMTs might differ in degree (which allows the exploration of new ranges of values for existing theoretical constructs) and exploring how they may differ in kind (which allows the development or investigation of new constructs and mechanisms).
- Taking a multi-level approach and acknowledging that managers in a TMT can come from different (hierarchical) levels of the MNE, as well as from different units of the MNE. Studying the implications of TMT member colocation (or the geographic dispersion of TMT members) or of the extent to which members identify with the team (or with different parts of the MNE) for strategic choices and outcomes.

Further Exploring External IB-related Contingency Factors and Boundary Conditions

- Further embracing the diversity in formal and informal institutions across countries, and exploring how these might be contingency factors or boundary conditions for previously studied relationships. Insights from the comparative capitalisms approach in institutional theory can provide guidance on which factors to consider as potential contingencies (e.g., national ownership patterns, institutional voids in emerging markets).
- Exploring how contextual factors, such as deglobalization and geopolitical considerations, act as contingency factors
 or boundary conditions by investigating whether the same TMT mechanisms that were useful in explaining IBrelated choices and outcomes remain equally relevant in changing or different contexts.
- Advancing our knowledge of IB-related contingency factors and boundary conditions by more systematically using different empirical contexts (moving beyond the often-studied Anglo-Saxon context) and designs, including ones where firms originate from multiple countries or from countries that are characterized by different institutions.

OUTCOMES

Exploring new strategic phenomena as outcomes

- Investigating how TMTs impact international CSR and sustainability issues. For example, exploring how TMTs play a role in orchestrating CSR and sustainability efforts in the MNE, developing ethical global value chains, and addressing "grand societal challenges."
- Exploring how TMTs influence the use and management of phenomena such as cross-border digital platforms and ecosystems that have been brought to the foreground by recent technological trends.

New ways of studying TMT elements as outcomes

- More systematically exploring how IB-related environmental factors, such as a country's institutional environment, might influence the conceptual elements of TMTs.
- Remaining relevant and vibrant by investigating how new trends in the external environment affect TMT elements. Researchers could investigate how nationalism and digital transformation impact the design and workings of TMTs in MNEs.

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