

A Framework and Research Agenda for Digital Global Leadership

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Digital globalization is a rapidly growing field of research, combining the research interests of the fields of strategic management, international business, and digital technology. The purpose of this paper is to provide an overview of how digital globalization, that is the rise of virtual or digitized flows across international borders, affects strategic leadership in multinational corporations and suggest areas for future research. We start by elaborating the ways in which digital globalization brings to the fore some key strategic decisions, leadership attributes and behaviors of leading multinationals. Building on these insights, we propose a framework of “digital global leadership.” We see this framework as an initial attempt to discuss the strategic leadership of multinationals in a digital world and elaborate some of the many opportunities for future research.

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INTRODUCTION

Digital globalization is changing how multinational corporations (MNCs) conduct their business. With “digital globalization” we refer to the rise of virtual or digitized flows, rather than physical flows, across national borders (World Trade Organization, 2018; McKinsey Global Institute, 2016) and how these virtual flows influence worldwide integration and interconnectedness. The global flow of data has accelerated hugely, by 80x, between 2005 and 2016 (Lund and Manyika, 2016), while the global flow of merchandise and finance have been flattening. During the COVID-19 pandemic, digitally delivered services jumped from 45% of all global service exports in 2005 to 52% in 2020 (UNCTAD, 2021b). And the rise of digital flows is not temporary: it is predicted that global data traffic will quadruple from about 200 exabytes/month in 2020 to about 800 by 2026 (UNCTAD, 2021a: 17).

In terms of corresponding corporate changes, since the rise of the internet in the late 1990s, there have been “born digital” companies, such as eBay, Google and Facebook, that quickly rose to dominate international markets and became influential players in the global economy. There have also been large-scale digital transformations of established multinationals that bring to the fore new management issues in global strategy (Furr, Ozcan and Eisenhardt, 2022). For example, many fast-moving consumer goods incumbents, such as Unilever and Procter and Gamble, have implemented major initiatives across their international operations to develop their data analytics infrastructure to analyze and predict consumer demand across countries, and to enable better planning across their geographically dispersed areas of new product development, supply chains and production. Moreover, virtual work has been a feature of multinational management for a long time. However, the adoption of hybrid or remote working “en masse” offers new opportunities and challenges. The digital era also presents new risks for the international business activities of MNCs.

In this paper, we explore how digital globalization is affecting various aspects of strategic leadership in multinationals to offer directions for future research. Following Samimi, Cortes, Anderson and Herrmann (2022: 3), strategic leadership refers to the functions undertaken by individuals at the organizational top levels that are intended to have strategic consequences for the organization. In particular, strategic leaders influence their organization through the internal and external interfaces that they navigate (Simsek, Heavey and Fox, 2018, 2022; van Doorn et al., 2022). Illustrative role titles of strategic leaders include chief executive officers (CEOs), top management team members, directors and general managers. In multinationals, strategic leadership is distributed across headquarters and subsidiaries. Our elaborations are, therefore, from the perspective of individuals with strategic leadership responsibility, regardless of their geographic location in the multinational. It is also important to note that our elaborations encompass “born digital” multinationals (e.g., Monaghan, Tippmann

and Coviello, 2020; Birkinshaw, 2022) as well as traditional MNCs that are “going digital” or have “gone digital” (e.g., Eden, 2016, 2018; Furr et al., 2022).

Overall, we suggest that digital globalization is a context factor that impacts strategic leadership in multinationals. In particular, digital globalization (1) offers new areas for consideration when leaders in multinationals make decisions on multinational strategy and organization, (2) brings to the fore certain leader attributes as critical to success and (3) accentuates some behaviors in how they lead. We propose that these facets of strategic leadership of the multinational in the context of digital globalization can be summarized as “digital global leadership,” that is leadership of the multinational under the forces of digital globalization. Moreover, we advance a framework of digital global leadership (Figure 1). In line with the main areas of concern in the study of strategic leadership by Hambrick (1989), our framework of digital global leadership details who they are (i.e., key strategic leader attributes), what they do (i.e., key strategic decisions), and how they do it (i.e., key leadership behaviors). Following the generic firm-level outcomes of strategic leadership (Hambrick, 1989), the framework also details the main outcome as organization performance at subsidiary and MNC levels. Also, a fundamental aspect of leading the multinational relates to dealing with complexity that arises due to the international rather than domestic remit of the organization. We, therefore, assume that leaders need to motivate and influence a range of internal and external constituents from multiple national cultures and countries in a context characterized by high levels of task and relationship complexity (Reiche, Bird, Mendenhall and Osland, 2017; Bird and Mendenhall, 2016). As insights on digital global leadership are nascent, we see this framework of digital global leadership as preliminary and as offering many opportunities for refinement and extension. In this spirit, we also elaborate on some promising areas for future research.

DIGITAL GLOBALIZATION AND STRATEGIC DECISIONS BY LEADERS IN MULTINATIONALS

Our framework of “digital global leadership” is summarized in (Figure 1). It is important to note that our framework combines insights from prior studies, which we discuss first, as well as areas that emerged as promising for future research, which we introduce later in the research agenda section. We elaborate on each element of this framework, starting with what they do (i.e., key strategic decisions), followed by who they are (i.e., key strategic leader attributes), and how they do it (i.e., key leadership behaviors). Following Hambrick (1989), these three elements of strategic leadership are interrelated and their main outcome is organization performance, in our case at the level of the MNC and subsidiary.

Context also matters, but a detailed discussion of the various external and internal context factors is beyond the scope of this paper. Therefore, we only indicate in Figure 1 that context factors can be antecedents of digital global leadership (i.e., when they do it) and may influence the extent to which digital global leadership impacts organizational outcomes. To list a few context factors, MNEs face external factors such as of globalization and deglobalization, industry and competitive dynamics at local, regional and global levels, as well as multiple institutional settings and distance across them. With respect to internal factors these include size, structure, strategy, past performance and internationalization, among others.

<Insert Figure 1 about here>

With reference to what strategic leaders do (Hambrick, 1989), they perform a range of activities and functions. These include taking strategic decisions and actions, engaging with external stakeholders, performing human resource management activities, motivating and influencing, managing information, overseeing operations and administration, managing social and ethical issues as well as managing conflicting demands (Samimi et al., 2022). In this paper, we seek to offer insights into strategic options and new strategic considerations that digital globalization has brought to the fore for strategic leaders and therefore likely shape what they do in terms of key strategic decisions. Therefore, we elaborate on some important ways in which digital globalization has influenced multinational strategy, strategic risks and multinational organization.

Multinational Strategy

Multinational strategy is a multifaceted topic. Here, we focus on some key areas relating to where and how MNCs compete internationally.

Digital technologies have reduced spatial transaction costs and spatial coordination costs, enabling cross-border activities; the digitalization of products and processes has also reduced the “tyranny of distance” and fostered the emergence of a “global-by-default” mindset due to an almost instantaneous global reach for digital offerings (Monaghan, Tippmann and Coviello., 2020; Birkinshaw, 2022). With international expansion challenges reduced – but not eliminated - in the digital global economy, there are more rapid international expansion strategies compared to the slow and incremental international expansion that was common in firms with industrial offerings and in a pre-digital era (Johanson and Vahlne, 2009). These rapid international expansion strategies include global scaling, as a logic of multinationalization that seeks rapid growth through the replication of a global business model across foreign markets (Reuber, Tippmann and Monaghan, 2021: 1031; see also Tippmann, Ambos, Del Guidice, Monaghan and Ringov, 2023) and rapid multinationalization--young entrepreneurial firms internationalizing fast to become multinationals (Monaghan and Tippmann, 2018). These internationalization strategies align with the competitive logic of born digitals to hyper-scale and hyper-specialize (Giustiziero, Kretschmer, Somaya and Wu, 2021). There are also scaling initiatives within established organizations, whereby innovative digital solutions are rolled out at a fast pace across countries (Ambos and Tatarinov, 2022; Tatarinov, Ambos and Tschang, 2022). Important here is that foreign direct investment, as entry mode, remains prevalent despite the possibility in a digital global economy to internationalize with less investment in physical assets and less human capital in foreign markets. Foreign subsidiaries remain relevant (Andrews, Nell, Schotter and Laamanen, 2022; Stallkamp, Chen and Li, 2023).

Coinciding with the rise of digital globalization, scholars have also paid more attention to the variety of business models as digitization has enabled the emergence of new business models and the transformation of legacy ones. Business models that encompass a digital offering and are digitally enabled may represent a global business model, thereby offering an advantage to multinationals that is non-location bound and suited for leverage across international markets (Tallman, Luo and Buckley, 2018). Also, digital business models may be more or less disruptive in certain country markets, therefore encountering varying levels of legitimacy challenges as multinationals leverage them internationally (Marano, Tallman and Teegan, 2020). Moreover, the rise of digital globalization has seen greater attention being paid to examine platform business models (e.g., Brouthers, Geisser and Rothlauf, 2016), including global platforms (e.g.

Nambisan, Zahra and Luo, 2019) and ecosystems (e.g. Furr et al., 2022). For multinationals operating platform business models, a key consideration includes network effects. Externalities in end user networks, for example, may be confined to within-country networks; however, cross-country network externalities may be present if user interactions stretch internationally (Stallkamp and Schotter, 2021). If network externalities are non-location bound, an organization may be pulled into foreign markets (Chen, Shaheer, Yi and Li, 2019). Also, multinationals operating digital platform business models need to be aware that bottlenecks in ecosystem growth can arise due to weaknesses in local (digital) infrastructures and lack of complementary assets (Nambisan et al., 2019).

Some insights on the core strategic demands and their management are also emerging. A key determinant in the strategic management of multinationals is their exposure to forces that favor global integration and local responsiveness (e.g., Prahalad and Doz, 1987; Devinney, Midgley and Venaik, 2000) or standardization and adaptation (e.g., Bartlett and Ghoshal, 1987, 1989). The balancing of these forces has remained an important aspect of strategic leadership in multinationals as leaders have to assess conflicting strategic demands and balance the tensions among them (Tallman and Cuervo-Cazurra, 2021; Westney, 2021). It is important to note that the context of this work was largely industrial firms in a globalizing world, yet pre-digitization. In the current context of digital globalization, these strategies are being re-visited. For globally scaling digital firms with a software-as-a-service business model, for example, the core strategic demands relate to replication – to deliver on rapid growth across international markets, and entrepreneurship – to innovate to retain competitiveness (Tippmann, Monaghan and Reuber, 2022). The persistent contradiction between these two demands creates the paradox of global scaling that requires navigation whereby a strategy of replicable innovation is fundamental (ibid). While the findings of this study suggest that local adaptations are minimized, multinationals in other digital contexts face greater pressures for local responsiveness. Tatarinov et al. (2022), for example, find that the scaling of digital solutions to institutionally distant settings requires local adaptation, and Reuber, Tippmann and Monaghan (2023) find that cultural and language barriers may lead to localization in digital channels. In general, as digital artefacts are inherently malleable and modifiable, it may be easier for multinationals to be locally responsive, but it still requires a business justification.

Multinational Risks

In terms of strategic risks, digital globalization has also created new types of risks for multinationals. A critical strategic risk includes over-estimating the non-location-boundedness of digital firm-specific advantages and under-estimating the need for innovative resource recombination to supplement and renew firm-specific advantages in dynamic global markets (Verbeke and Hutzschenreuter, 2021). Moreover, Luo (2022) identifies within-country and cross-country drivers of digitization risks and focuses on three new types of hazards that MNCs confront: digital interdependence, information security and regulatory complexity; and the exposure of multinationals to these digitization risks depends on their intensity of information flow, geographic variety, international strategy and participation in global platforms. Luo (2022) also outlines actions that MNCs must take, both individually and collectively, to manage these digital risks, with a focus on processes for developing and deploying digital intelligence in the pursuit of transnational resilience for increasingly digitally connected cross-border activities.

The rapid internationalization and international scaling of many digital multinationals expansion (Monaghan et al., 2020; Birkinshaw, 2022; Tippmann et al., 2023), while providing for opportunity capture, has the potential to front-load and heighten the risks of internationalization. While earlier theories of internationalization would have advocated slow and incremental internationalization to build relevant networks and knowledge to reduce risks (Johanson and Vahlne, 2009), with the more rapid international expansion enabled by digitization the multinational may also accelerate its risk exposure. Because a company can now enter many countries at once or in quick succession, cognitive demands on strategic leaders are heightened. It is therefore not surprising that digital multinationals pace their internationalization (Monaghan and Tippmann, 2018). To illustrate, Netflix deliberately staged expansion strategy to allow for some degree of learning but still entered many countries simultaneously, generally to great success (Brennan, 2018). At the same time, it is possible that digital globalization can speed up the learning process to keep with the accelerated risks.

Multinational Organization

Following the impact of digital globalization on multinational strategy and risks, there are also some notable implications on the structure and organization of MNCs.

Overall, most organizing models of multinationals are characterized by a distribution of power, decision-making authority and autonomy across headquarters and subsidiaries. Examples include the heterarchy (Hedlund, 1986), transnational solution (Barlett and Ghoshal, 1989) and horizontal organization (Poynter and White, 1990). Headquarters functions are also increasingly disaggregated and geographically dispersed (Nell, Kappen and Laamanen, 2017; Kunisch, Menz and Birkinshaw, 2019), including the emergence of virtual headquarters (Birkinshaw, Ambos and Bouquet, 2017). In addition, multinationals are increasingly adopting flatter and more responsive structures with substantial virtual work across borders (Birkinshaw, 2022, Andrews et al., 2022). Digitalization is an enabler here in that it reduces coordination costs across geographic distance and enables greater location flexibility because it becomes possible to hire talent with less regard to its geographic location (Monaghan et al., 2020).

Multinationals are also adopting new organization models to embed hybrid and remote working across their international operations. Tippmann, Sharkey Scott and Gantly (2021b) examine which hybrid work model is best for MNCs based on a combination of two dimensions: relational versus transactional work and low versus high internationalization in terms of the number of countries with employees. They propose four organization models, including a large-hubs organization, distributed organization, hubs-and-satellite organization and global-virtual organization. An underlying premise here is an increasing digitalization of tasks. In terms of managing the multinational, digitalization renders almost unnecessary a fundamental management task in international business: the need to constantly seek to standardize and codify specialized tasks involving a lot of tacit knowledge (Autio, Mudambi and Yoo, 2021, Cano-Kollmann et al., 2016). Digital technologies are diminishing the asset specificity of human capital involved in each activity and make it less embedded in a geographic location. Once an activity has been digitalized, it may be separated from the specialized (non-replicable) human capital that is found in only certain geographic areas and carried out in many international locations. In addition to this location flexibility of digitalized tasks, big data and data analytics all make it easier to operate the MNC. However, Nell et al. (2021) warn of five digitalization traps that leaders in particular should seek to avoid: overreliance on quantitative data via-a-vis

holistic judgment and intuition, overemphasis on big data-hungry initiatives over powerful small-data projects, overcomplicated and slow decision-making using big data, biases in data-driven decision-making as well as discouraging entrepreneurship and innovation at lower levels of organizations.

Regardless of the chosen structure and organizational model, multinational management in a digital world requires the management of global connectivity. Unpacking global connectivity further, Nambisan and Luo (2022) propose four dimensions that stretch across a multinational's operations: digitally connecting with global markets and customers; digitally connecting with global partners, platforms and ecosystems; digitally connecting with foreign subsidiaries and managing global activities; and digitally connecting with global innovation and knowledge. In essence, Nambisan and Luo (2022) discuss how MNCs might employ digitalization to balance the integration-responsiveness or standardization-adaptation tensions (e.g. Prahalad and Doz, 1987; Bartlett and Ghoshal, 1989). Here, improvements in digital technologies enable new approaches for controlling the coupling of global and local strategies as companies can, for example, use data analytics to inform adjustments in their level of localization. They may also integrate and coordinate better with their external partners, especially suppliers and customers (Jean, Sinkovics and Cavusgil, 2010; Sinkovics, Jean, Roath and Cavusgil, 2011) as well as vertically (between headquarters and subsidiaries) and horizontally (between subsidiaries) across the MNE (Stendahl, Yakhlef and Tippmann, 2022). More broadly, Nambisan and Luo (2022) argue that the digitalization of global business has necessitated the development of new types of capabilities, at all levels of a multinational, that relate to how the company detects or acquires weak and strong signals in an international business context, analyzes that data and incorporates it into decision-making—and, more generally, how the company maintains the overall coherence of its digital global business connectivity under changing conditions.

Having discussed some important ways how digital globalization affects some key decisions in multinational strategy and organization in light of digitization risks, thereby shaping what strategic leaders do, we elaborate next on the influence of digital globalization on the attributes of strategic leaders.

DIGITAL GLOBALIZATION AND ATTRIBUTES OF STRATEGIC LEADERS IN MULTINATIONALS

Turning to leadership attributes (i.e., what they do) (Hambrick, 1989), digital globalization poses some new demands on the individual-level attributes of strategic leaders. In this paper, we refer to the attributes of strategic leaders as including their traits, skills and characteristics at the individual level. Prior research has established a myriad of attributes of strategic leaders that relate to their effectiveness and influence firm-level outcomes (e.g. Samimi et al., 2022). As this paper is concerned with the attributes of strategic leadership in multinationals in the context of digital globalization, we focus our discussion on insights that relate to the intersection of digitalization and leadership (digital leadership) and the intersection of leadership and globalization (global leadership). Our focus is on leaders of traditional MNCs and the latter's transformation into global digital immigrants.

Digital Leadership

By digital leadership, we mean leading geographically dispersed teams, distant divisions, or remote units with the help of digital technologies. For example, Wrede, Velamuri and Dauth (2021) find that top management team support is essential in the digital transformation of firms, and that top managers respond to the digital transformation by engaging in three key actions: understanding digitalization, setting the formal context for digitalization and leading change. Moreover, leaders of digitally enhanced organizations need competence in leading virtual teams. Gilson et al. (2015) reviewed research on virtual teams and found that many studies have examined the interaction between leadership and virtual situations. These studies find that team members are “more satisfied with their team and leader and perceive their leader as being better able to decode messages when the leader is geographically distant from the team” (Gilson et al., 2015: 1319). Although counterintuitive, this finding suggests that modern employees prefer less direct supervision, noting that this may hold only for less relationship-oriented cultures such as Western ones.

Global Leadership

The study of “global leadership,” as distinct from leadership, began in the late 1980s (Morrison, 2000; Mendenhall, Li and Osland, 2016), dealing with the specifics of leading in an international versus domestic organization. Research on global leadership today covers mostly the same areas as research on domestic leadership; however, as globalization poses unique demands, global leadership emerged as a distinct area of research with a focus on the challenges posed by leading across national borders. In terms of the attributes that make successful global leaders, prior research suggests that it requires culture and international business knowledge; intercultural interaction, foreign language and advanced cognitive skills; as well as suitable personality characteristics (Caliguri, 2004). These factors need to be taken into consideration when discussing attributes of global leaders. Furthermore, Olie et al. (2021) argue that the institutional context of the country in which global leaders are embedded crucially shape how CEO or top management team characteristics affect strategic decision-making processes.

DIGITAL GLOBALIZATION AND STRATEGIC LEADERSHIP BEHAVIORS IN MULTINATIONALS

In terms of how they do it (Hambrick, 1989), strategic leaders exhibit a myriad of behaviors when performing their leadership functions (Samimi et al., 2022). While insights on the strategic leadership behaviors in the context of digital globalization are only emerging (e.g. Tippmann et al., 2021a; Nambisan and Luo, 2022), we conjecture that the below behaviors are important due to their relevance in fostering global connectivity.

Global connectivity and leadership both flourish on functioning interpersonal relationships between actors - leading in a digital world requires relationships with a range of dispersed actors across various internal and external interfaces. Cortellazzo, Bruni and Zampieri (2019), for example, find that leading digital organizations still requires substantial relationship building with a wide range of stakeholders and the facilitation of collaborative processes in

complicated environments. Nambisan and Luo (2022) are even stronger in their description of the changes relating to relationships when leading multinationals in a digital world: they suggest that the age of “command and control” as the dominant global management approach is over; instead strategic leaders need to be able to orchestrate and influence a diverse set of global partners, subsidiaries, markets and resources that are often loosely coupled to the company. Focused on internal remote teams in multinationals, Tippmann, Sharkey Scott and Gantly (2021a) find that strategic leaders were effective in supporting their teams in achieving operational targets; however, embedding innovation in remote teams proved more challenging. They reveal that successful strategic leaders drive remote innovation through conflict and collaboration, thereby revealing some leadership behaviors relevant specifically to this context.

It is also important to note that strategic leaders are instrumental in shaping and, through their actions, in reinforcing the digital culture of the multinational. Nambisan and Luo (2022) note that “digital” should be everybody’s business at the senior executive level; yet it is the CEO’s job to ensure that the right digital culture extends across the entire organization. An element here is the design and use of digital artefacts in support of strategic leaders’ ability to lead effectively. Digital technologies and the use of big data, advanced data analytics and artificial intelligence not only offer new business insights for better decision-making, but also new possibilities for control (Benito et al., 2022). We will elaborate on some of the social and ethical issues below. Here, we would like to emphasize that it has been established that digital technology can supplement or replace some of the roles of strategic leaders in multinationals. The study by Stendahl, Tippmann and Yakhlef (2022) demonstrates how digital platforms that are designed for the use across the multinational can help lateral collaboration between subsidiaries with a reduced need for strategic leadership intervention by headquarters. The digital platform – as a shared object - allows for meaningful collaboration processes that span the multinational. This is an important finding because prior research has primarily focused on coordination approaches that rely on interpersonal encounters among dispersed employees to promote collaboration. However, as worries about the viability and sustainability of frequent foreign travel grows, strategic leaders in multinationals are pressed to adopt new techniques that need less direct interpersonal engagement among subsidiaries. One important answer is to use digital channels and digital platforms in a way that elicits collaboration and innovation.

So far, we have outlined scholarly insights on the main ways in which digital globalization influences important strategic decisions, leader attributes and behaviors for managing multinationals. We have summarized these arguments in Figure 1 - a framework of digital global leadership. Next, we build on these insights to note a few areas that offer promising avenues for future research on digital global leadership. These future research areas are also illustrated in Figure 1.

A RESEARCH AGENDA FOR DIGITAL GLOBAL LEADERSHIP

While there are substantial insights on strategic leadership in multinationals that can be applied to the context of digital globalization, “digital global leadership” as a distinct area of inquiry focused on leadership in the multinational under the forces of digital globalization has yet to be advanced. In terms of a general observation on digital global leadership. Nambisan and Luo (2022: 192) note that “across industries, global business leadership will be defined by the ability to lead loosely coupled, digital organizations that can adapt to and thrive under the influence of both globalization and localization forces.” We agree with this prescription and would like to

build on this to advance a research agenda. While we focus on the strategic leadership dimensions in this paper, we would like to note that digital global leadership is important throughout the multinational and distributed across hierarchical levels. Following from our differentiation between strategic decisions, attributes, behaviors and outcomes (Figure 1), we also structure our ideas for future research along those four categories. Researchers can treat our ideas as propositions to be tested, including their relationship to strategic decisions and performance outcomes.

Strategic Decisions of Digital Global Leaders

We described earlier some key decisions for digital global leadership concerning multinational strategy, multinational risk and multinational organization. We follow the same structure here to elaborate some promising areas for future research.

First, insights on digital risk for global strategies are starting to emerge (Luo, 2022; Verbeke and Hutzschenreuter, 2021). However, more research is required on how strategic leaders in multinationals assess the risks, weight them against the upside potential of opportunities that global digitization offers and seek to mitigate them through their decisions and actions.

Second, in terms of strategy and organization of multinationals, an underlying premise is an increasing digitalization of tasks. While considerations of how to manage geographically dispersed organizational units and members has been at the core of managing multinationals, the rise of digital globalization has created some new questions. A challenge is how to manage the various combinations of physical and digital locations and employees, especially when employees have varying degrees of physical and digital presence due to remote and hybrid working arrangements. Hence a key question is what hybrid or remote work structures work best for multinationals? If we take the classic perspective of structure following strategy, then this has to be contingent. In this spirit, research could build on and empirically test the contingencies of the four common organization models for multinationals: large-hubs organization, distributed organization, hubs-and-satellite organization and global-virtual organization (Tippmann et al., 2021b).

Attributes of Digital Global Leaders

The main questions in relation to the attributes of digital global leaders revolve around the traits, skills and characteristics that enable them to excel at digital global leadership. There are also many opportunities for future research, and here we expand on what we believe are some critical aspects to become successful digital global leaders.

First, we argue that leaders need to be digitally savvy, thereby making this an attribute of all strategic leaders rather than of only a selected few, like the chief technology officer. Global leaders need to have significant digital competence to be able to lead their companies as digital organizations and to lead the development of digitally based sources of competitive advantage. Leaders need to be digitally competent so that they know when to augment the technology versus being open to some of their tasks being supplanted by it, and to understand how to interact and interpret the outputs. Heavey et al. (2020), for example, provide a framework of six archetypal engagement behaviors through which top executives should leverage social media to reach, communicate and interact with stakeholders in developing and executing strategy. Boards

looking to appoint new CEOs and other top executives should prioritize this capability. Some interesting questions may relate to how organizations can evaluate the digital savviness of top executives and strategic leaders. In addition, does digitization reduce the bounds around rationality by increasing organizational transparency and information flow across the multinational? Furthermore, does digitally enhanced transparency reduce the monitoring need of top managers? Senior global executives used to travel the world to extract information from local managers. Digitization may free up time that leaders can focus more on strategic and creative roles, such as solving novel challenges the multinational faces (Decreton, Tippmann, Nell and Parker, 2023).

Second, we suggest that leaders have to learn new skills in their use of digital communication, for example to ensure their communication remains authentic. Digital global leaders in traditional MNCs need to be as digitally savvy and comfortable communicating through new digital means as leaders in born digital companies, especially as more and more of their employees are digital natives. Top leaders used to manage by walking around (MBWA), and in multinationals they also managed by flying around (MBFA). In digital multinationals, perhaps leaders can manage by zooming around (MBZA) or even metaversing around (MBMA)? Post-COVID-19 and their lockdowns and travel restrictions, there is some Zoom and MBZA fatigue. For example, Jamie Dimon, CEO of J P Morgan Chase, said in mid-2022 that he would give up on Zoom calls altogether; but it will remain to be seen if this proves effective. In contrast, Mark Zuckerberg, founder of Facebook and CEO of its parent Meta, leads the charge on MBMA with his own avatar in his company's Metaverse. Perhaps, leaders need to be "heads-on" in wearing virtual reality headsets to participate in a corporate metaverse. Lastly, because of climate change, the viability of MBFA is increasingly questioned. For example, a British law firm has started to fine its flyers £200 per flight. Overall, we therefore expect that authentic digital communication will become increasingly important for global leadership.

Third, we believe that listening and communication skills relate strongly to the effectiveness of digital global leaders in digital multinationals. In a digital global company, employees are easier to reach, but harder to connect to in order to instil vision, purpose, values and culture. It is also harder for leaders to sense the emotions of the employees that they lead virtually, especially across cultures. Therefore, listening and communication skills are ever more important when leading through digital channels compared to co-located setting. In order to explore these issues, studies could examine the critical facets of digital communication skills of strategic leaders in an intercultural and internationally dispersed setting as well as other skills required for the effectiveness of global digital leaders.

Fourth, it would be useful to examine how the various attributes and functions of leadership and their context bundle into digital global leadership roles. Reiche et al. (2017) provide a typology of four global leadership roles based on task and relationship complexity. If digitalization moves to the core, future research could examine how digitalization affects task and relationship complexity and the ability of global leaders to perform each of these four roles. Also, it would be useful to consider how global digitalization – and the corresponding need for digital global connectivity – is a standalone dimension that perhaps creates new typologies for roles of global digital leaders. With a double dispersion of MNCs - globally and digitally – and the need to be run on an increasingly digitally-enabled and loose-tight network of operations, leaders need to emphasize their integrator role to allow others to innovate, strategize and execute. This offers a few interesting areas for research: What are the roles of digital global leaders and

how should leaders prioritize among them? What is an appropriate combination of performing global leadership roles through digital versus physical means?

Fifth, the cultural intelligence of leaders likely remains important as leadership in the MNC fundamentally encompasses leading people with different cultural backgrounds. To illustrate, for MNCs that are “digital immigrants” rather than “digital natives,” digital transformation is a particularly difficult organizational change. The essence of strategic transformation is to move from an old business model to a new one, jettisoning older assets, processes, capabilities and even people. The increased challenge of digital transformation is that it frequently requires abandoning physical assets and making massive changes in processes and mindset, along with the need to hire digital experts who are parachuted into high levels of the organization. Global digital transformation in MNCs hits an extra barrier in terms of cultural differences across countries, particularly in terms of attitudes to hierarchy (digitalization tends to reduce the importance of hierarchy) and adoption of new technologies (uncertainty avoidance may slow digitalization). Cultural intelligence helps to anticipate and respond to such challenges. However, future research is needed to understand the myriad of ways in which cultural intelligence relates to leader effectiveness in digital globalization.

Digital Global Leadership Behaviors

In terms of the key behaviors of global digital leadership, the need for fostering global connectivity also offers some interesting areas for future research.

First, relationships across international locations are increasingly developed and managed through virtual interactions. To exert influence at critical interfaces, boundary spanning activities have been noted as critical for leaders in multinationals (e.g. Birkinshaw, Ambos and Bouquet, 2017; Schotter, Mudambi, Doz and Gaur, 2017), including for creative and innovative outcomes (Tippmann, Sharkey Scott and Parker, 2017). However, how leaders can be effective boundary spanners in a digital, global context remains to be explored. Similarly, with a greater use of virtual interaction, leaders in multinationals may have more opportunities to engage with internal and external stakeholders located in other geographies. Moreover, leaders may be able to connect more deeply into their organization and reach lower-level employees across locations through their virtual presence. This raises the question of the right balance between a leader’s external and internal interactions as well as how to influence, motivate, engage and communicate effectively downward across geographic distance.

Second, we anticipate that digital global leadership exacerbates issues of responsible and ethical leadership. As an example, digitalization has made data ubiquitous and, with the advances of quantum computing, algorithmic power is expected to explode (Ruane, McAfee and Oliver, 2022). These technological advances raise many questions relating to the use of information and data: while leaders may have privileged access to big data and analytics, it will require strong values and judgement to decide on how to use it. In addition, local regulations, rules and norms with respect to data will have to be taken into consideration. With respect to regulations on data privacy, for example, the European Union offers the highest protection, the U.S. moderate protection and China low protection. Leaders need to be aware of such institutional differences across countries. Yet, leaders in some multinationals have been found to exhibit a “wilful disregard for existing assumptions, norms, and even regulations, as a way of building up its user base and keeping ahead of competitors” (Birkinshaw, 2022: 2). Future research could therefore explore the various ways in which digital global leadership has to exhibit responsible and ethical

leadership to accommodate such cross-country differences. Moreover, some multinationals have become influential and powerful global players based on the data they control, which creates ethical dilemmas that strategic leaders need to resolve. These issues also require further examination.

Firm-level Outcomes of Digital Global Leadership

All the aspects we have mentioned would benefit from empirical testing in relation to firm-level outcomes. As a synthesis of research on strategic leadership reveals (Samimi et al., 2022), there are a myriad of organization-level outcomes that strategic leaders influence. As the main concern of strategy is organization performance, we follow Hambrick (1989) in focusing in on effectiveness, efficiency and fulfilment of stakeholder needs. In the multinational, these organization outcomes are of interest at both the subsidiary and corporate level. Here, we illustrate how global digital leadership may influence these outcomes with a few examples.

By reducing spatial transaction and coordination costs as well as fostering the digitalization of activities across the MNC's operations, digital globalization creates opportunities for efficiencies. Digital global leadership may leverage them to different degrees and for different parts of the business, with different effects on overall organizational efficiency. In terms of effectiveness, enabling knowledge and innovation across geographic space will remain a key challenge in digital global leadership. Also, if digital global leadership enables international expansion due an easier and faster reach of international markets, it may enable organizational effectiveness by delivering on growth objectives as well as efficiency by creating economies of scale and lower costs due to reduced spatial transaction and reduced coordination costs. In terms of stakeholder needs, delivering on sustainability objectives is critical for organizations, and digital global leadership may use digital globalization for wider stakeholder engagement and to scale new solutions for greater social and environmental impact (Tippmann et al., 2023). By coincidence, the global disruptions in the 2020s--such as a global pandemic, climate change, major wars, political turmoil in Western democracies and China-U.S. decoupling—have brought to the fore the need for organizational resilience as well as flexibility to adjust global value chains as well as relocate subsidiaries (Ambos et al., 2021; Reilly, Tippmann and Sharkey Scott, 2023). It would be interesting for future research to also investigate the influence of digital global leadership on such outcomes.

CONCLUSION

Digital globalization has had and will have a profound effect on companies and their leaders. For multinational companies, there is an additional set of challenges for their global leaders who already face the daunting task of managing across borders. In response, digital global leaders need to develop new ways of thinking about their strategic decisions, their own attributes and the behaviors that they use for digital global leadership. Research has only just begun to address these issues. By advancing a framework of digital global leadership, this paper offers a stepping stone for further research on this important topic.

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Figure 1 A framework of digital global leadership

