Intra-firm Geographic Mobility: Value Creation Mechanisms and Future Research Directions*

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This paper argues that intra-firm geographic mobility is an understudied mechanism that can help mitigate coordination failures in a geographically distributed organization. The paper presents an organizing framework on how intra-firm geographic mobility creates value for firms and discusses how intra-firm geographic mobility can create value for individual workers. The paper concludes by presenting a future research agenda for intra-firm geographic mobility in light of emerging phenomena such as global collaborative patenting by multinationals, temporary colocation of knowledge workers, and nonstandard work.

Keywords: Intra-firm geographic mobility, coordination failures, multilocation firms.

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The topic of employee mobility has received extensive attention in the strategy, innovation, and organizations literature (Agrawal, Cockburn, & McHale, 2006; Agarwal, Ganco, & Ziedonis, 2009; Bidwell & Briscoe, 2010; Campbell et al., 2012; Cirillo, Brusoni, & Valentini, 2014; Dahl & Sorenson, 2010; Marx & Timmermans, 2017; Rosenkopf & Almeida, 2003; Singh & Marx, 2013; Song, Almeida, & Wu, 2003; Starr, Ganco, & Campbell, 2018; Tan & Rider, 2017; Tzabbar, 2009). However, almost all of this research is focused on the antecedents, barriers, and consequences of *inter-firm career mobility*, that is, mobility of employees between firms. It is worthy to point out that inter-firm career mobility of workers does not necessarily include a geographic component; for example, workers moving from Google in Silicon Valley to Facebook in Silicon Valley shift organizations, but not geographic locations.

This paper focuses on *intra-firm geographic* mobility, or the practice of employees moving between geographic locations within the same multinational/multilocation firm. Such intra-firm geographic mobility can range temporally, from relatively permanent moves between two firm locations, to semi-permanent "global rotational moves" between multiple geographic locations, or even temporary colocation of otherwise spatially distributed workers. As a recent McKinsey report on talent and employee mobility suggests, intra-firm geographic mobility is a common management practice within global firms (Dewhurst, Pettigrew, & Srinivasan, 2012).[2]

For scholars of strategic human capital, intra-firm geographic mobility is also of theoretical importance as a mechanism to mitigate coordination failures between spatially dispersed agents. Scholars have long hypothesized that multinational/multilocation firms exist because of their ability to transfer and exploit knowledge more effectively and efficiently in the intra-firm context than would

[2] Per the report, global multinational firm Schlumberger requires managers to rotate geographies every few years and expects that executives will spend 70 percent of their total careers working outside their home countries (Dewhurst et al., 2012). At global banking firm HSBC, participants in the International Management Program are sent to an initial location far from their home region and can expect to rotate again after 18 months (Dewhurst et al., 2012).

be possible through external market mechanisms. As Gupta and Govindarajan (2000) point out, the internalization of the intangible assets argument, originally advanced by Hymer (1960), has been widely accepted as the theory of why multinational firms exist. However, increased geographic distance between employees limits the ability of workers to rely on tacit coordination mechanisms (Srikanth & Puranam, 2014) and potentially leads to increased coordination costs (Cramton, 2001).

While the coordination of interdependent activities is a key priority for organizations (March & Simon, 1993; Thompson, 1967), prior literature has documented "coordination failures" for geographically distributed knowledge workers within the same organization (Srikanth & Puranam, 2011). Polzer et al. (2006) theorize that for geographically dispersed knowledge workers, "fault lines" are more likely to be activated. Furthermore, Tzabbar and Vestal (2015) point out difficulties in the interpretation, integration, and development of knowledge as well as in conflict resolution due to geographic dispersion. It is important to study the failure to transform and exploit knowledge in the intra-firm context, as it can negatively affect the realized absorptive capacity of the firm (Zahra & George, 2002). In fact, there is also a rich prior literature—notably Hofstede (1980) and Ghemawat (2001)—on how various dimensions of distance (i.e., geographic, cultural, political, and administrative) hinder firms' value creation (also see Alcacer, Kogut, Thomas, & Yeung, 2017, and Berry, Guillen, and Zhao, 2012).

Prior to understanding how intra-firm geographic mobility can mitigate coordination failures in the context of geographically distributed knowledge workers, it is important to summarize causes of such failure as documented in prior literature. First, knowledge can be sticky and difficult to transfer between geographic locations of the same firm (Szulanski, 2003; Von Hippel, 1994), and this could lead to coordination failures. Second, as prior research (Kiesler & Cummings, 2002; Olson et al., 2002; Srikanth & Puranam, 2011) points out, communication failures between geographically separated knowledge workers—due to physical distance, information channel bandwidth constraints, and time

zone differences—can lead to coordination failures. Third, scholars have consistently argued that interpersonal and task conflicts are more extreme for geographically dispersed knowledge workers compared to colocated workers (Armstrong and Cole, 2002; Cramton, 2001; Hinds & Bailey, 2003; Hinds & Mortensen, 2005; Mannix, Griffin, & Neale, 2002). Finally, Choudhury (2017) builds on Noda and Bower (1996) and alludes to failures in the process of "impetus," where middle managers fail to allocate resources to spatially distant knowledge workers.

This paper proposes that intra-firm geographic mobility can be viewed as a mechanism related to mitigating coordination failures between spatially dispersed agents within multinational and multilocation firms. It is not the paper's intention to compare intra-firm geographic mobility with other, arguably complementary and more well-studied mechanisms.[3] However, it suffices to say that the mechanism of intra-firm geographic mobility remains understudied in the strategy literature, partially because we lack a synthesizing framework on the mechanisms through which intra-firm geographic mobility creates value for firms and employees.

This paper attempts to address this gap in the literature and provides such an organizing framework. Drawing on the classic literature on geographic mobility of workers within multinational firms (Edström & Galbraith, 1977; Galbraith & Edström, 1976) and more recent research on intra-firm geographic mobility in the strategy and organizations literature (Chattopadhyay & Choudhury, 2017; Choudhury, 2016, 2017; Karim & Williams, 2012; Madsen, Mosakowski, & Zaheer, 2003; Singh, 2005), this paper synthesizes three key mechanisms through which intra-firm geographic mobility creates value for firms: (1) intra-firm knowledge transfer across locations and subsequent knowledge recombination; (2) intra-firm socialization of organizational processes and cultural norms; and (3)

[3] Mechanisms that have been studied extensively in prior literature include tacit coordination mechanisms, ongoing communication and modularization (Srikanth & Puranam, 2011, 2014), replication (Winter & Szulanski, 2001), shared identity, shared context, and spontaneous communication (Hinds & Mortensen, 2005), and cultural convergence versus divergence (Hinds, Liu, & Lyon, 2011).

facilitation of intra-firm resource allocation (see Table 1a). The paper also summarizes how intra-firm geographic mobility can create value for individual workers though the mechanisms of compensation, career progression, and human capital augmentation (Table 1b).

INSERT TABLES 1a, 1b ABOUT HERE

The paper concludes by urging scholars of strategic human capital to pay attention to the issue of intra-firm geographic mobility considering newly emerging phenomena. Relevant phenomena include global knowledge production and collaborative patenting by multinationals (Branstetter, Li, & Veloso, 2015; Choudhury, 2017; Choudhury & Haas, 2018; Kerr & Kerr, 2018; Miguélez & Fink, 2013), temporary colocation of knowledge workers (Edmondson, 2012; Boudreau et al., 2017), and nonstandard work (Ashford, George, & Blatt, 2007; Choudhury, Foroughi, & Larson, 2018). In summary, this paper makes the case for why intra-firm geographic mobility should be a topic of renewed focus among strategic human capital scholars.

The rest of the paper is structured as follows: I next synthesize the main mechanisms through which intra-firm geographic mobility creates value for firms and individuals. I then outline an agenda for future research and conclude.

Intra-firm Geographic Mobility and Value Creation for Firms

This section synthesizes three key mechanisms through which intra-firm geographic mobility creates value for firms: (1) intra-firm knowledge transfer across locations and subsequent knowledge recombination; (2) intra-firm socialization of organizational processes and cultural norms; and (3) facilitation of intra-firm resource allocation.

Intra-Firm Knowledge Transfer and Knowledge Recombination

Knowledge tends to be asymmetric across locations in an organization, often produced at one geographic locale within the firm but needing to be transferred to another locale in order to be useful (Edström & Galbraith, 1977; O'Donnell, 2000). It is also accepted in the management literature that

some organizational knowledge is codifiable while other knowledge is largely tacit (Cowan & Foray, 1997; Dasgupta & David, 1994; Polanyi, 1966). Yet, whether tacit or codified, knowledge can be difficult to search for and/or transfer across units and geographies (Sorenson & Stuart, 2001). This is largely because, although knowledge has been shown to transfer more easily within firms than between firms (Kogut & Zander, 1992; Singh, 2005), intra-firm knowledge still tends to be geographically localized (Jaffe, Trajtenberg, & Henderson, 1993) and often remains sticky and difficult to transfer (Szulanski, 2003). Furthermore, causal ambiguity implies that knowledge can function differently in varying situational contexts, suggesting that effective knowledge transfer is not only about transmitting and receiving, but also about ensuring proper interpretation and implementation on the receiving end, further impeding the process of intra-firm knowledge transfer (Szulanski, 2003).

One way to reconcile these intra-firm knowledge transfer issues is to physically move the individual worker who possesses the knowledge from the home location within the firm (where the knowledge is created) to the host location within the firm (where the knowledge needs to be transferred). Below are three possible sub-mechanisms related to how intra-firm geographic mobility can facilitate intra-firm knowledge transfer: (1) geographically mobile employees can act as a bridge to transfer knowledge between firm locations; (2) intra-firm geographic mobility can aid in the creation/strengthening of intra-firm communication networks, especially informal ones, with implications for subsequent intra-firm knowledge transfer; and (3) intra-firm geographic mobility can help host locations receiving the knowledge better interpret and utilize said knowledge.

Geographically mobile employees can facilitate intra-firm knowledge transfer and alleviate coordination failures related to sticky knowledge by acting as a "knowledge transfer bridge" between locations within the firm. According to the knowledge-based view of the firm, knowledge resides mostly within individuals, and moving these experts will shift their sticky and often tacit knowledge to new geographic locales (Grant, 1996; Karim & Williams, 2012; Kogut & Zander, 1992). In other

words, intra-firm geographic mobility helps transfer sticky, tacit, and often contextual knowledge more effectively to new geographies within the firm, while placing the focal employee in a valuable position as both the incoming expert and the critical knowledge liaison between firm locations.

Choudhury's (2016) study using patent data for 1,315 employees at an Indian R&D branch of a Fortune 500 company illustrates how intra-firm geographic mobility leads to intra-firm knowledge transfer. Exploiting a natural experiment, I examine how mentorship effects differ between local newly hired college graduates reporting to returnee migrants versus local new hires reporting to non-migrant managers. In this study, all the returnee migrant managers have moved geographically from the company's U.S. headquarters to the emerging-market R&D center. In addition, and importantly for the purposes of identification, the assignment of new hires to managers is governed by strict bureaucratic rules and is, thus, unrelated to any observable characteristics of the managers or direct reports (Choudhury, 2016). I find that new hires reporting to returnee managers file more U.S. patents than local hires reporting to local managers. Furthermore, patents filed by new hires reporting to returnee migrant managers display more frequent rates of self-backward citation than patents filed by new hires reporting to local managers, indicating that recent migrants may serve as a knowledge transfer bridge between headquarters and the local Indian R&D center (Choudhury, 2016).

Intra-firm geographic mobility can also contribute to creating informal intra-firm communication networks (Edström & Galbraith, 1977), which can be, in some instances, more effective than formal traditional network structures in transferring technological and practical know-how (e.g., Ghoshal, Korine, & Szulanski, 1994). According to human capital theory, tacit knowledge is particularly difficult to transfer without face-to-face interaction between employees (Becker, 1964, 1976; Karim & Williams, 2012; Lepak & Snell, 1999; Polyanyi, 1966). While classic models of intra-firm knowledge transfer rely on formal networks for communication and information transfer (Daniels, Pitts, & Tretter, 1984; Egelhoff, 1982; Gates & Egelhoff, 1986; Stopford & Wells, 1972),

these networks have proven to be insufficient for transferring tacit knowledge, especially within large MNCs (Bartlett & Ghoshal, 1993; Galbraith, 1973; Ghoshal & Bartlett, 1990; Ghoshal et al., 1994; Hedlund, 1986). Singh (2005) argues that face-to-face interactions (which may be facilitated by intra-firm geographic mobility) can build trust, thus increasing colleagues' willingness to share knowledge. Hansen and Løvås (2004) and Tsai (2000) have made similar arguments.

Moreover, effective intra-firm knowledge transfer requires that knowledge at the home location be interpreted accurately and utilized at its host location, and intra-firm geographic mobility can offer host locations an "expert" resource with firm-specific human capital related to interpreting and utilizing the relevant knowledge (Choudhury & Kim, 2019). This geographically mobile "expert" can share tacit knowledge on how to utilize newly developed technological resources and also guide the receiving unit on how to best utilize said resources, particularly given the specific local context (Argote & Ingram, 2000; Hocking, Brown, & Harzing, 2004). The geographically mobile employee is endowed with unique firm-specific human capital (Becker, 1964; Wang & Barney, 2006), which encompasses unique familiarity with the complementary firm-specific resources—such as technical know-how (e.g., Galbraith, 1990; Grosse, 1996; Haas, 2006) or managerial expertise (e.g., Edström & Galbraith, 1977; Hocking et al., 2004; Nohria & Ghoshal, 1997)—needed to make a new technological investment work in a different geography. Furthermore, Karim and Williams (2012) demonstrate that mobile employees often recombine knowledge across geographic contexts as they shift locales, playing a key role in knowledge interpretation and sometimes even creating new shared knowledge. Choudhury and Kim (2019) also document this phenomenon, showing that geographically mobile inventors can work with local inventors to recombine knowledge. As geographically mobile "experts" continue to move between the branches of a multinational firm, repeatedly engaging in knowledge interpretation and utilization in each location, they can transform from passive transmitters of information into active builders of new, firm-specific processes (Galbraith & Edström, 1976). In

summary, intra-firm geographic mobility can be instrumental in transferring, utilizing, and recombining knowledge between geographic locations of the same firm, thus creating value for that firm. It is, however, important to point out that an important supporting condition necessary for firm value creation from intra-firm geographic mobility of knowledge workers relates to ties resulting from prior collaboration (Singh, 2005) and future collaborations between local and geographically mobile workers (Choudhury & Kim, 2019; Tzabbar, Silverman and Aharonson, 2014).

Intra-firm Socialization of Organizational Processes and Cultural Norms

In addition to the transfer of knowledge within the firm, intra-firm geographic mobility can also be a key mechanism for intra-firm socialization of norms and organizational practices. In other words, geographically mobile employees can act as a conduit for transferring social norms, cultural habits, and intra-firm processes—much of which is tacit and, thus, difficult to impart without direct contact with knowledgeable employees (Edström & Galbraith, 1977; Polanyi, 1966). Employees who possess the tacit knowledge of how the organization functions socially can play a key role in this process, much as they can with the transfer of "know-how" (Boyacigiller, 1990; Edström & Galbraith, 1977; Hocking et al., 2004; Ondrack, 1985). In more recent research, Madsen et al. (2003) and Karim and Williams (2012) argue that intra-firm mobility facilitates effective transfer and recombination of organizational norms.

Building on Hinds and Mortensen (2005), this paper also argues that geographically mobile employees can plausibly contribute to the creation of shared identity and shared context by bridging the physical and contextual distance that separates geographically dispersed knowledge workers. As Hinds and Mortensen (2005) have shown, shared identity and shared context mitigate coordination failures related to interpersonal and task conflict, respectively, and spontaneous communication is a key supporting condition that positively relates to the creation of shared identify and shared context.

Socialization via intra-firm geographic mobility also gives managers at firm headquarters an avenue for remote subsidiary control and, thus, geographically mobile employees can partake in the firm control structure. Intra-firm geographic mobility, especially in the form of geographic mobility of key employees from the headquarters to subsidiaries, gives firms an opportunity to exert control over even its most remote subsidiaries (Edström & Galbraith, 1977; Kraatz & Moore, 2002; Madsen et al., 2003). Furthermore, socialization creates an ingrained sense of "correct" decision making, and through socialization, the "firm way" of doing things can become so ingrained that it trumps other behavioral drivers, like national identity or cultural background (Edström & Galbraith, 1977).

Facilitation of Resource Allocation

Intra-firm geographic mobility can also help individual employees working at distant subsidiaries within a multinational/multilocation firm secure the resources they need from headquarters. This is particularly true if employees possess the firm-specific human capital necessary to navigate their firm's (often tacit) network of individuals who allocate firm resources. There exists a small body of research indicating that geographically mobile employees achieve greater access to informal networks, which enables them to acquire the resources they need, particularly related to innovation and R&D (Seibert, Kraimer, & Liden, 2001; Singh, 2005). In this case, the key firm-specific human capital is knowledge of the intra-firm resource allocation process (Burgelman, 1983; Noda & Bower, 1996) and how best to access intra-firm resources for use in the distant subsidiary.

Under this argument, intra-firm geographic mobility can even include a short-term trip, such as a few weeks of travel to the firm headquarters. In a recent study of 1,315 inventors working at an Indian R&D center of a Fortune 50 MNC, Choudhury (2017) shows that short, but *well-timed*, trips to headquarters can help distant inventors acquire the resources they need. Specifically, inventors who traveled to firm headquarters in the weeks prior to the quarterly R&D funds allocation meetings have a higher probability of filing patents upon their return (Choudhury, 2017). I argue that this is due to

both the increased effectiveness of face-to-face communication and the timing of these trips relative to the firm's resource allocation timeline. I also attempt to address endogeneity concerns related to the timing of these trips by describing who these geographically mobile employees are (R&D workers at the Indian subsidiary of this MNC) and what affects the timing of travel to headquarters (participation in "internal product launches" and compatibility testing, whose timing is set by headquarters, not by mobile inventors).

Employees also experience longer-term benefits when using intra-firm geographic mobility to acquire key resources. Face-to-face interactions with key stakeholders through intra-firm geographic mobility give employees a chance to gain valuable "who's who" knowledge (Hocking et al., 2004). For resource-seekers, this "know-who" learning is just as important as "know-how" learning (Cohen & Levinthal, 1990; Hocking et al., 2004). Knowledge regarding R&D cycles, in conjunction with "know-who" knowledge, enables mobile employees to establish networks that grant easier access to resources (Hansen, 2002; Hocking, Brown, & Harzing, 2007).

Intra-firm geographic mobility can also place mobile employees in a position to help *others* access the resources they need. Plourde, Parker, and Schaan (2014) find that subsidiaries hosting expatriates from headquarters are more likely to get attention from firm headquarters. They argue that being connected to the headquarters via the expatriate ensures that host subsidiaries acquire the resources needed for growth (Plourde et al., 2014), presumably because the expatriate better understands the firm's resource allocation process and can reframe the subsidiary's needs within the firm's overall context.

Intra-firm Geographic Mobility and Value Creation for Individual Workers

Another important question relates to the motivations of individuals engaging in intra-firm geographic mobility. This question is salient for the ongoing discussion surrounding intra-firm geographic mobility's place in the career for workers within multilocation/multinational firms (Inkson

et al., 2012; Stahl, Miller, & Tung, 2002; Tung, 1987). In a qualitative study, Tung (1987) found that employees often fear engaging in intra-firm geographic mobility, especially expatriation assignments, for a variety of reasons: lack of subsequent promotion opportunities; short assignment duration undermining effectiveness in the new role; and lack of cultural sensitivity training, among others. The question of what motivates employees to engage in intra-firm geographic mobility is particularly important in light of the emerging literature on mobility frictions (Choudhury, 2019; Starr, Ganco, & Campbell, 2018). As Choudhury (2019) summarizes, geographic mobility often entails personal, family, occupational, and economic costs to the individual. These costs need to be (at least partially) offset against the value created for the individual as a result of engaging in intra-firm geographic mobility. Three potential mechanisms to achieve this balance are increased compensation, accelerated career advancement, and augmented human capital.

First, intra-firm geographic mobility can be associated with individuals' wage increases. Clemens (2013) documents that for software engineers working in India or the U.S. within a single MNC, the average wage difference is roughly $58,000. Mobility can also indirectly affect workers' wages by bolstering employee bargaining power within the organization, as reflected in the expatriate compensation literature (e.g., Reynolds, 1997).

Second, building on prior literature (Brass, 1985; Burt, 1995; Seibert et al., 2001), intra-firm geographic mobility might accelerate career advancement for geographically mobile employees. Career advancement may occur because mobile employees have broader informal networks (Shipilov et al., 2014) that can increase their likelihood of learning about new opportunities as they arise (Ibarra, 1995). The networks themselves may also be a form of firm-specific human capital that increases the value of mobile employees within their organizations, in turn prompting their firms to invest in them further (Burt, 2004). Also, supervisors tend to view boundary spanners as more technologically capable, due to their ability to learn from other units and apply those lessons to their own projects (Tushman, 1977;

Tushman & Scanlan, 1981), which may also boost the perceived value of a mobile employee. Mobile employees who return to the firm headquarters can also transmit host location-related knowledge (Coleman, 2000) and over time become an integral part of the knowledge transfer chain leading back to headquarters—another factor that might accelerate the geographically mobile employee's career progression (Edström & Galbraith, 1977; Galbraith & Edström, 1976; Hocking et al., 2004; Tung, 1982). Sociology scholars have also extensively studied the link between intra-firm socialization practices and employees' careers (Allen, 2006; Feldman, 1981; Jokisaari & Nurmi, 2009).

Third, intra-firm geographic mobility can benefit mobile employees through the augmentation of their human capital. Prior literature on this topic dates back to Edström and Galbraith (1977), who argue that cross-border geographic mobility helps develop the decision-making and problem-solving skills of specific expatriate managers. In more recent work, Chattopadhyay and Choudhury (2017) exploit a natural experiment of the random assignment of managers to firm locations to demonstrate how moving to challenging geographic locations accelerates career progression, arguing that this acceleration is due to the creative thinking and problem-solving skills generated by challenging assignments.

Discussion, Further Research, and Conclusion

This paper argues that intra-firm geographic mobility is an important mechanism relevant to mitigating coordination failures between spatially dispersed knowledge workers at multilocation and multinational firms; yet with a few notable exceptions (Chattopadhyay & Choudhury, 2017; Choudhury, 2016, 2017; Karim & Williams, 2012; Madsen et al., 2003; Singh, 2005), this management practice is understudied in the strategy literature. This paper attempts to synthesize theoretical mechanisms through which intra-firm geographic mobility creates value for firms and individuals. The remainder of the paper will examine future directions for intra-firm geographic mobility scholarship.

As stated before, early research in this area was motivated by the phenomenon of expatriate workers moving geographically within multinational firms. However, intra-firm geographic mobility as a construct may also help scholars elucidate several emerging phenomena, outlined below.

Global Knowledge Production by MNCs and Temporary Colocation of Workers

There is a new wave of research in strategy and innovation around the phenomenon of global R&D and global collaborative patents by multinationals (Branstetter et al., 2015; Choudhury, 2017; Choudhury and Haas, 2018; Kerr & Kerr, 2018; Miguélez & Fink, 2013). However, as I have argued, geographic distance can create coordination costs for global knowledge production, which could be mitigated through intra-firm geographic mobility. While Choudhury (2017) stresses how intra-firm geographic mobility and face-to-face interactions between distant employees and resource allocators can increase access to funding, future research could focus on how intra-firm geographic mobility and temporary colocation of global teams affects global knowledge coproduction.

Edmondson (2012) stresses the importance of temporary colocation for MNCs' high priority innovation projects. The author gives the example of the Motorola RAZR project, which aimed to create the "thinnest phone ever in record time" (Edmondson, 2012, p. 77). As part of this project, Roger Jellicoe led a team of 20 global experts who temporarily relocated and worked in Chicago (Edmondson, 2012). The prior literature on global knowledge production within MNCs has focused on variables like technology in communication and collaboration (Hinds & Bailey, 2003); team member roles (Haas, 2006); autonomy (Haas, 2010); context, identity, and spontaneous communication (Hinds & Mortensen, 2005); and language (Neeley, 2013). Going forward, scholars could study whether and how intra-firm geographic mobility and temporary colocation of knowledge workers impacts global knowledge production within MNCs. Important questions remain related to the frequency of intra-firm geographic mobility, duration of temporary colocation, and location of temporary colocation required to achieve positive productivity outcomes.

Nonstandard Work

There is an emerging literature on nonstandard work (Ashford et al., 2007; Bidwell et al., 2013; Cappelli & Keller, 2013; Pfeffer & Baron, 1988) that has documented increased variation over time in the extent to which workers are *physically proximate* to the organization. One form of increasingly common nonstandard work is remote work, in which an employee is allowed to work outside the office, either part- or full-time. In recent years, a new form of remote work—working from anywhere (WFA)—has emerged. While Choudhury et al. (2018) find positive productivity effects of WFA policies, they also caution about the costs of geographic flexibility, insofar as it increases coordination and learning costs for geographically distributed employees. These cost increases are also relevant for the increasing number of firms—primarily in the software and technology fields (such as Mozilla and Art & Logic)—that are structured as virtual organizations (Reynolds, 2014). Future research could focus on whether intra-firm geographic mobility can lower coordination and/or learning costs for workers at firms that engage in remote work or are structured as virtual organizations.

In conclusion, this paper makes a case for why strategy, innovation, and organization scholars should engage further on questions related to intra-firm geographic mobility. It is plausible that intra-firm mobility has not received the attention it deserves due to a paucity of data; while it is easier to code inter-firm mobility from patent data and other publicly available records, prior studies in intra-firm mobility (such as Choudhury, 2016, 2017) have relied on hard-to-access, proprietary personnel datasets. However, with the release of new patent data that includes inventor locations, the availability of worker location data via LinkedIn and other public sources, and the availability of methodological tools to scrape and geo-code unstructured web-based data, it is now more possible than ever to study intra-firm mobility using publicly available data. In addition to studying value creation from intra-firm geographic mobility, researchers of strategic human capital could also use the lens of intra-firm geographic mobility to study interesting questions in light of emerging areas of study such as global

R&D, global collaborative patents, temporary colocation of knowledge workers, and nonstandard work.

Table 1a Value Creation for Firms from Intra-firm Geographic Mobility: Selected Evidence

Value Creation Mechanisms		Selected Evidence	Cause(s) of Coordination Failure Mitigated	Supporting Condition(s) for Value Creation
For firms	Knowledge transfer and recombination	Edström and Galbraith (1977) assert that expatriate managers are a key means of transferring knowledge between HQ and subsidiaries. Singh (2005) argues that direct interaction between colleagues can build trust and increase willingness to share knowledge. Karim and Williams (2012) argue that the movement of executives between different firm units facilitates recombination due to executives' transmission of tacit knowledge. Choudhury (2016) argues that returnee migrant managers facilitate greater innovation among their direct reports because they serve as a communications bridge between the MNC headquarters and subsidiary. Choudhury and Kim (2019) show that migrant inventors transfer knowledge formerly "locked" in geographic contexts, which is then recombined by teams that can include a combination of migrant and native inventors.	Stickiness of knowledge transfer Intra-firm communication failures	Past and future collaboration between local and geographically mobile knowledge workers
	Socialization of organizational norms and processes	Edström and Galbraith (1977) assert that managers are a key means of transferring social ties and organization-specific norms between HQ and subsidiaries. Madsen et al. (2003) argue that diverse personnel inflows improve personnel retention due to the effective transfer of organizational norms. Karim and Williams (2012) argue that the movement of executives between different firm units facilitates recombination due to executives' transmission of organizational norms.	Interpersonal and task conflict	Spontaneous communication
	Facilitation of resource allocation	Choudhury (2017) argues that temporary, well-timed visits to the HQ facilitates access to firm resources in the period following the trip.	Lack of impetus Intra-firm communication failures	Timing of intra-firm geographic mobility

Table 1b Value Creation for Individuals from Intra-firm Geographic Mobility: Selected Evidence

Mechanism	Selected Evidence
Skills development	Edström and Galbraith (1977) argue that overseas transfers are a way to develop the decision-making and problem-solving skills of specific managers. Chattopadhyay and Choudhury (2017) argue that individuals who move to more challenging intra-firm locations advance more rapidly due to the development of unique problem-solving skills.
Wage impact	Clemens (2013) argues that there is a significant wage differential for software workers when they experience intra-firm geographic mobility between the U.S. and India, even within the same firm, controlling for type of work, level of education, and experience.

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