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**Exploring Micro Socio-Psychological Mechanisms of Buyer-Supplier Relationships:
Implications for Inter-Organizational Learning Agility**

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Abstract

The nature and patterns of vertical work relationships between buyers and suppliers is a key subject of inquiry in organization and management research. However, the mechanisms conducive to transforming transaction-based relationships into commitment-based relationships remain elusive. Although commitment-based relationships can produce various outcomes, little is known about whether and how these work relationships build and facilitate inter-organizational capabilities and their performance implications. This article presents a theoretical model that clarifies the micro socio-psychological mechanisms by which buyers and suppliers can develop inter-organizational learning agility. By drawing on theoretical insights in the areas of social exchange, micro-foundations, positive work relationships, commitment, and dynamic capabilities, it suggests that three mechanisms – respectful engagement, rich and ongoing communication, and advice seeking and giving – can transition buyer-supplier relations from transactional ties to commitment-based ties. It is argued that relationship commitment is a key to building inter-organizational learning agility by enacting three mechanisms: psychological availability, generativity and reflective reframing. The discussion centers on the fundamentals for developing this stream of research.

Keywords: Buyer-supplier work relationships, vertical relationships, relationship commitment, inter-organizational learning agility, micro-foundations.

Introduction

Understanding the nature of vertical relationships and how they evolve is a key subject of inquiry in a variety of fields including strategic management, international business, operation management, and organization science. However, in an ever- more globalized world where there are higher levels of interdependencies between buyers and suppliers there is a need to better understand collaborative arrangements and the ways in which buyer-supplier relationships can help generate mutual economic and social gains (Cox, 2004). Scholars have defined two basic forms of relationship that entail different levels of commitment. These are situated at opposite ends of a continuum anchored by *transactional ties* which are characterized by low levels of buyer-supplier engagement and often manifest a mutual hostage setting, and *relationship-based ties*, which are characterized by high levels of commitment (Paulraj, Chen, & Lado, 2012) and collaboration (Srinivasan & Brush, 2006). Transactional ties and low levels of commitment may be more susceptible to opportunistic behaviors, shirked efforts, and even the misdirection of vital resources, all of which impede investments in long-term inter-firm objectives, and the development of effective supply chain practices (Gulati, 1998; Gulati & Sytch, 2007; Uzzi, 1997). In contrast, strong buyer-supplier commitment and collaborative inter-organizational ties allow the parties to direct more resources towards partnership objectives (Dyer & Chu, 2003). Researchers have stressed the need to delve into intra-organizational collaborative processes to more fully understand their enabling and inhibiting mechanisms (see Fawcett, Fawcett, Watson, & Magnan, 2012). For example, HRM scholars suggest that HRM practices in partnering organizations may influence the nature of the relationships they pursue and develop (Wilkinson, Eberhardt, McLaren, & Millington, 2005).

The literature on alliances also provides useful insights into why highly committed, trustful, and long-term collaborative buyer-supplier relations can be beneficial to partnering firms (Bensaou, 1999; Gulati & Sytch, 2007; Kale, Singh, & Perlmutter, 2000; Liu, 2012; Nielsen, 2005). Nevertheless, little is known about the ways in which two parties transform their relationship from transactional ties to a commitment-based relationship. In particular, more needs to be known about the actual *processes* that help buyers and suppliers to transition from transactional ties to commitment-based relations. Senge (2010) pointed out that as much as 90% of buyer-supplier relations are still transactional. To date, research has tended to focus on the similarities and complementarities between buyers and suppliers as a way to build quality relationships, but little effort has been directed towards the study of processes that help build inter-organizational capabilities. Recent research has shown that even if a supplier's capabilities are available to buyers it is unclear how the latter use this accessibility to enhance their competitive position in the marketplace (Weigelt, 2013), and even less is known about the micro-processes that help both parties to develop strategic capabilities.

Here we respond to the recent call to unpack the micro-foundations of strategic issues (Barney & Felin, 2013; Felin & Foss, 2005; Felin et al., 2012), and aim to promote research by showing that an analysis of the micro-processes that make up the buyer-supplier relationship can lead to the development of theory that can capture how firms develop work relationships that build inter-organizational strategic capabilities. By micro-processes we refer to those activities that are "rooted in individual action and interaction" (Foss, 2011: 1414). Based on recent HRM research on micro-moves and their power in building quality relationships (Carmeli & Russo, in press), we suggest that a focus on relational mechanisms and micro-level processes is vital for theory development about how buyers and suppliers can transition from transactional ties into

commitment-based relationships, and achieve gains (see also Obloj & Zemsky, 2015). In this article, we examine the three micro-relational mechanisms of respectful engagement (Dutton, 2003), communication (Angwin, Mellahi, Gomes, & Peter, in press; Paulraj, Lado, & Chen, 2008), and advice seeking and giving (Bonaccio & Dalal, 2006; Lee, 1997) that underpin this transformational process¹.

----Insert Figure 1 about here----

Despite progress in research on firm capabilities and their micro-foundations (Carmeli, Jones, & Binyamin, in press), knowledge about how *inter-organizational relational capabilities* enhance buyer-supplier *learning agility* is still in an early stage. Although there are numerous studies on organizational learning (Dussauge, Garrette, & Mitchell, 2000; Fiol & Lyles, 1985; Inkepen, 2000; Jap & Anderson, 2003; in: Villena, Revilla, & Choi, 2011; Kale & Singh, 2007), attempts to advance theory about *how* buyers and suppliers apply co-learning to develop more fruitful supply chain processes have been relatively scarce (Dyer & Nobeoka, 2000; Lincoln, Ahmadjian, & Mason, 1998; Liu, 2012). Research on individual-level learning has provided valuable lessons, but this line of research has hardly ever been integrated into theories on inter-organizational learning agility (DeRue, Ashford, & Myers, 2012; Lombardo & Eichinger, 2000). The model presented here incorporates three key mechanisms – psychological availability (Kahn, 1990) generativity (Dutton & Carlsen, 2011), and reflective reframing (Hargadon & Bechky, 2006), all of which may facilitate the transformation of relationship commitment into inter-organizational learning agility.

In the following sections, we define key constructs and the rationale underlying the conceptual model depicted in Figure 1. We start by focusing on buyer-supplier relationships, and then show how strong commitment in buyer-supplier relationships accelerates inter-

¹ We define and discuss these constructs in subsequent sections.

organizational learning agility. Finally, we articulate the implications of inter-organizational learning agility for performance outcomes.

Buyers – Supplier Relationships

Efforts to co-create benefits across supply chains are hampered by such factors as cost, complexity, insufficient information, and outdated know-how, but these barriers only further corroborate the view that the nature and pattern of relationships determine the buyer-supplier partnership and its outcomes. Scholars tend to study buyer-supplier relationships from operational and strategic perspectives. Both are macro views that emphasize firm performance and competitiveness, but the operational perspective tends to focus on buyer-supplier dynamics, processes, and process costs whereas the strategic perspective highlights dynamic capabilities and innovation to increase market presence (Rašković & Mörec, 2013).

Transactional and Commitment-based Relationships in Buyer-Supplier Exchange

Buyer-supplier relations can take various forms. Previous work has differentiated between transactional ties and commitment-based relationships (Dyer & Singh, 1998; Paulraj et al., 2012). Note, however, that through a prioritizing and segmentation process a firm chooses with whom to develop transactional or commitment-based relationships (Dyer, Cho, & Chu, 1998; Handfield, Krause, Scannell, & Monczka, 2000).

Transaction cost economics (TCE) examines ways of balancing internal production with the costs of inbound procurement, and suggests that the optimal relationship between ‘rational’ buyers and suppliers is a function of the lowest total cost (Williamson, 1996). Thus transactional ties refer to more distant, shorter-term and price-focused exchanges that aim primarily to secure supplies at the lowest cost. Transactional ties are not inherently inferior, nor is it innately unethical to make purchasing decisions with the aim of reducing costs (Coase, 1937;

Williamson, 1981). However, when used simply to drive supply prices down at *all* costs, transactional ties can easily create hurdles that offset their intended benefits. These hurdles include win-lose and even adversarial relations, opportunistic behaviors, delayed responsiveness, and higher coordination costs, which in combination can lead to value destruction and undermine beneficial outcomes.

Commitment-based relationships (also known as relationship commitment) refer primarily to closer, long-term, value-adding buyer-supplier exchanges that are critical for operating in a socially and environmentally sustainable fashion. Nevertheless, commitment to relationships can at times lead to inertia and limit the capacity to adapt and respond to emerging environmental needs. Perhaps the most prevalent example of the negative effects of relationship commitment is ‘keiretsu’ which defines friendly ties that connect groups of companies (large and medium-sized family enterprises) through both formal (e.g., cross-shareholding) and informal (e.g., ‘shacho-kai’ or regular presidents’ assembly meeting) relationships. Keiretsu has been a source of success over a long period of time and has served Japanese companies well. At the same time, however, this network system can also sow seeds for failure due to excessive commitment and the costs associated with coordination activities. Thus keiretsu can lead to increased complacency and inhibit the members’ capacities to respond to new emerging environmental jolts (see Hundley & Jacobson, 1998). This article does not deal with commitment-based relationships that inhibit adaptive capacity or lead to over-reliance on other members and ultimately to complacency and unresponsiveness. Instead, we explore positive commitment-based relationships that are *nurturing and productive* in nature. They involve mutual support, co-effort and multidirectional influence and provide an optimal space with abundant opportunities for mutual development.

This view expands on the literature about relational ties by utilizing a behavioral lens to the study of vertical work relationships and their importance for continuous enhancement of structural, operational, and logistical processes. Relationship commitment has been defined as a 'strategic partnership' (Bensaou, 1999) in which parties commit resources (Thompson, 1967) and are willing to make short-term sacrifices to advance long-term alliance objectives (Anderson & Weitz, 1992). These constitute the building blocks of productive collaborative efforts in which intent and commitment to relationships shape the ways inter-organizational collaboration are formed over time (Fawcett et al., 2012). Relationship commitment tends to create ecosystem benefits, and facilitate better information sharing between partners, which contributes to uncertainty reduction, long-term planning of buyer specific investments and R&D activity, higher levels of trust, superior coordination and control, and increased operational flexibility (Das & Teng, 2001; Rašković & Mörec, 2013; Srinivasan and Brush, 2006). Buyer-supplier relations that are based on reciprocity and commitment increase social exchange between parties (Gulati, 1995; Sako, 1998; Uzzi, 1997), which minimizes transaction costs while maximizing value-creation efforts (Dyer & Singh, 1998). As shown in Figure 1, before buyers and suppliers can develop quality vertical exchanges, they must migrate from transactional ties to commitment-based relationships.

The Mediating Role of Micro-Relational Mechanisms

How buyers and suppliers transform transactional ties into commitment-based relationships is a fundamental question that has yet to be fully answered in the literature (Autry & Golicic, 2010). We theorize that buyers and suppliers can build commitment-based relationships by employing three relational mechanisms: 1) respectful engagement (Dutton, 2003; see also Nidumolu, Ellison, Whalen, & Billman, 2014), 2) communication (Angwin et al., in press; Paulraj et al., 2008), and 3) advice seeking and giving (Bonaccio & Dalal, 2006; Lee,

1997). Naturally, other relational processes are conceivable, but the research we cite below suggests that these three are especially critical.

Respectful Engagement. Some of the biggest organizational-level accomplishments come to fruition because of interpersonal relations and chemistry in which interactions among buyer-supplier personnel confer a sense of confidence, trust, and commitment, often by linking self-interests to shared interests (Nidumolu et al., 2014). These engagements include hope, wisdom, reciprocity, constructive coaching, experiential learning, tolerance and forgiveness, and growth and mutual development (Seligman & Csikszentmihalyi, 2000) as suggested by work in Positive Psychology. We focus here on respectful engagement (Dutton, 2003) which captures the ways people interrelate with each other (i.e., ‘behaviors in interactions’), to inform theory about buyer-supplier relations.

Respectful engagement characterizes ways to build positive interpersonal relationships that send a clear message of positive regard to the other people in the relationship. In this type of interaction, people convey presence, communicate in a way that affirms each other, display effective listening and engage in supportive communication (Dutton, 2003). We reason that this set of behaviors help to cultivate commitment-based buyer-supplier relationships. When buyers and suppliers focus on each other’s needs and what is important for ancillary stakeholders, they bring greater synergy to their value networks. Rather than dwelling on each other’s deficiencies, partners try to create value for each other by recognizing their partners’ expectations, goals and needs. Buyers and suppliers also make efforts to ensure the wellbeing of their ecosystem, so rather than acting out of opportunism, the parties realize that many setbacks are unintentional and are artifacts of system constraints and instead seek to build their partnership through perseverance, action, and optimism (Verbeke & Greidanus, 2009). Respectful engagement

means that buyers and suppliers reciprocate often (Baker & Dutton, 2007) in ways that honor each other's very existence (Dutton, 2003); they support each other's expectations and goals and by exercising goodwill they build trust and confidence, and thus a stronger, more commitment-based partnership. Put formally:

Proposition 1a: *By interacting in respectful ways, buyers and suppliers are likely to transform transactional ties into commitment-based relationships.*

Communication. Managing supply chains is a daunting task. In order to manage the various existing tradeoffs, supply chain managers must build and utilize effective communication. Research has long acknowledged the central role that communication plays in diverse organizational functions (Tushman & Nadler, 1978; Weick, 1979). Studies have shown that as parties interact to coordinate activities, disseminate information, solve problems, and make decisions, the role of communication becomes even more fundamental for building long-term trust and enduring, reciprocal commitment (Galbraith, 1973; O'Reilly & Pondy, 1979).

Buyer-supplier communication builds relational competency that can yield competitive advantages for both parties (Paulraj et al. 2008). Research suggests that open, frequent communication among personnel fosters inter-firm collaboration, thus building trust and cooperation (Kwon & Suh, 2004; Petersen, Ragatz, & Monczka, 2005). Communication also facilitates transparency, knowledge sharing, deeper understanding, and superior learning (Powell, Koput, & Smith-Doerr 1996; Takeishi, 2001), all of which reduce opportunistic behaviors and minimize transaction costs, while building stronger engagement and more enduring commitment (Kwon & Suh, 2004; Paulraj et al., 2008).

Drawing on Angwin et al.'s (in press) work, we suggest that communication and its management are likely to foster commitment-based buyer-supplier relationships. Specifically, this involves two dimensions of communication: *process* and *content*. The communication

process includes the amount, the frequency and the duration of contact (Paulraj, Lado, & Chen, 2008). Therefore, interactive, reciprocal, and continuous rather than fragmented, sporadic, and abstruse communications reduce information asymmetry and task uncertainty. Though the effect of the timing of communication has not been widely researched, previous studies suggest that frequent repeated and timely communication helps build trust and commitment between organizations (Paulraj et al., 2008; Ragatz, Handfield, & Scannell, 1997).

As communication processes are established, important information is transmitted between buyers and suppliers, enabling them to better coordinate their actions and programs. By promoting higher-level and more frequent interactions, timely communication fosters more participative decision making which also enhances mutual trust (Anderson, Lodish, & Weitz 1987). As relationships evolve, communication helps to shape positive attitudes and actions, ultimately buttressing buyer-supplier trust and commitment (Kasper-Fuehrera & Ashkanasy, 2001). Communication theorists stress that too much contact can overload parties and have dysfunctional consequences (Chown & Liu, 2015; Mohr & Nevin 1990). Hence, we stress the notion of adequate communication; i.e., sufficient, timely, and useful information sharing (Smidts, Pruyn, & van Riel, 2001) to avoid communication overload. The use of information and communication technology (ICT) ranging from electronic data interchange (EDI) systems to more complex and direct computer-to-computer links with suppliers through shared technical databases, internet, intranet and extranet (Min & Galle, 1999), has also been widely acknowledged as an important means of facilitating communication and promoting close collaboration between buyers and suppliers (Giunipero et al. 2006; Paulraj & Chen, 2007). It helps develop communication-based competencies through closer, more open and frequent

collaborative exchanges (Carr & Smeltzer, 2002; Sanders, 2005) at both the operational as well as the strategic levels (Paulraj & Chen, 2007).

Overall, ongoing richer, accurate, and forthcoming communication processes in which supply chain parties collaborate with each other by providing useful and personalized information are more likely to build inter-party trust, thus fostering commitment to longer-term cooperative relationships (Angwin et al., in press). This logic leads to our next proposition:

Proposition 1b: *Richer and timely communication increases efforts on the part of buyers and suppliers to build commitment-based relationships.*

Advice Seeking and Giving. To negotiate and reconcile conflicts and coordinate joint action, buyers and suppliers must be able to exchange advice. Advice seeking and giving is one way of using communication as *helping behaviors* (Gino, Brooks, & Schweitzer, 2012). In the context of buyer-supplier relations, helping behavior is the willingness to devote “time and attention to assist with the work of others” (Hargadon & Bechky, 2006: 489; Hofmann, Lei, & Grant, 2009). Advice seeking and giving is the act of improving the business processes of others which is clearly a nontrivial behavior in many buyer-supplier relations (Lee, 1997; Senge, 2010). Hence when buyers and suppliers engage in helping behaviors, they are more likely to do so effectively when they have a deep understanding of each other’s business, which in due time will reinforce their relationships, elicit more advice seeking and giving, and thus motivate greater commitment to their ecosystem.

Seeking advice can pose a serious dilemma for advice seekers, however, because it may be perceived as a signal of inability to fulfill obligations or deliver on time (Lee, 1997), a threat that often nips advice-seeking behavior in the bud even when it is needed (Nadler, 1991). However, when parties seek advice they signal that they appreciate and trust their counterpart’s knowledge and expertise. In addition, when the parties are satisfied with the responsiveness of

their counterparts, they will be more likely to reciprocate (Gouldner, 1960), thus fostering greater commitment to the relationship between the two parties. Often advice givers need to commit some resources, in the form of listening and learning time, before they can provide useful advice, but by doing so, advice givers signal commitment to their counterparts. As advice giving is often voluntary; e.g., an ‘informational gift’, it is unlikely that advice givers will engage in it for too long without some level of reciprocity from advice seekers (Lampel & Bhalla, 2007). Advice givers, by nature, do favors, and research suggests that they are likely to develop high levels of commitment to relationships, particularly when reciprocity is associated with such favors (Flynn & Brockner, 2003).

Thus, when buyers and suppliers exchange advice they often develop greater reciprocal commitment. As Liljenquist (2010) noted, doing favors and giving advice make partnerships more cohesive and more enduring. Hence the following proposition:

Proposition 1c: *By engaging in advice seeking and giving, buyers and suppliers are more likely to move away from transactional ties and build a commitment-based relationship.*

Buyer-Supplier Relationships and Inter-Organizational Learning Agility

Unlike most natural environments that evolve over long periods of time, business environments are changing at an accelerated pace which requires different forms of behavior and has implications for a firm’s competitive position (Chen, Katila, McDonald, & Eisenhardt, 2010; D’Aveni, 1994). For example, customer needs, quantities, qualities, and prices of raw material, the impact of climate on production and transportation and regulations are all in a state of flux. This has led to increasing research interest in the study of strategic agility, how this capability can be developed, and the context in which it may be particularly crucial for driving performance outcomes (Brannen & Doz, 2012; Doz & Kosonen, 2008; Junni, Sarala, Tarba, & Weber, 2015;

Weber & Tarba, 2014; Wilson & Doz, 2011). Scholars have taken a myriad of approaches, such as explaining the antecedents and consequences of decision speed (Eisenhardt, 1989; Judge & Miller, 1991), new product development (Takeuchi & Nonaka, 1986), and the ways HR strategy are configured (Shafer, Dyer, Kilty, Amos, & Ericksen, 2001), as well as information system infrastructures (Weill, Subramani, & Broadbent, 2002), to build a more agile organizational system.

To cope effectively with this reality, supply chains must change at the same pace as the environment they intersect. This explains why buyers and suppliers need not only the right information, but must also develop the capacity to learn as fast as their value network changes to act effectively on this information. However, it is likely that agility can be developed through a variety of focal processes and in particular via *inter-organizational learning agility*, a shared capability that is developed through a complex transformational socio-psychological process.

Learning agility, a relatively new construct borrowed from the area of organizational behavior, refers to the desire and ability to accelerate experiential learning and then apply that learning to new situations (Lombardo & Eichinger, 2000). Learning agility is often manifested as an eagerness to try out new ideas, learn from mistakes, strengthen one's knowledge pool, and develop new ways to solve complex problems (DeRue et al., 2012). Learning agility is also the ability to make quick decisions, even in the absence of complete data; it is the capability to embrace the ambiguity that often characterizes new ideas and unfamiliar situations (DeRue et al., 2012). While past performance is a strong predictor of future performance, recent research suggests that because learning agility emphasizes the ability to adapt, change, and expand one's learning style to tackle novel situations, the construct is even a stronger predictor of future performance (De Meuse, Guangrong, & Hallenbeck, 2010; Mitchinson & Morris, 2014).

We propose that commitment-based relationships facilitate inter-organizational learning agility, and that this agility is paramount in the context of vertical exchanges between buyers and suppliers. Relationship commitment helps parties to learn despite the uncertainties, detours, and setbacks that often characterize efforts to weave together unrelated pieces of data and integrate capabilities to craft more productive supply chain practices. Inter-organizational learning agility allows parties to co-develop a nuanced understanding of what goes on in each other's activities and thus respond quickly and adapt to emerging demands or sudden changes. This is likely to occur because relationship commitment denotes goodwill that facilitates flexible changes in the way partners work on new tasks that need to be addressed even if these were not specified in a contract. In addition, when parties display commitment to the relationship they are more willing to engage in work processes and develop a high level of openness towards each other such that hurdles and setbacks can be quickly analyzed and plans can be altered in a more flexible way. In short, buyers and suppliers who are agile learners co-solve more complex problems and coordinate better to deal with challenges than less agile parties because the former learn faster, integrate and share more lessons, tools, and solutions, and draw on a deeper understanding of new business contexts.

The Mediating Role of Psychological Mechanisms

In what follows, we elaborate on three micro-mechanisms that link relationship commitment to inter-organizational learning agility: 1) psychological availability, 2) generativity, and 3) reflective reframing. This is not an exhaustive list, but previous research has shown that these processes are especially crucial for buyers and suppliers to develop learning agility.

Psychological Availability. Psychological availability refers to the “physical, emotional, and cognitive resources” that engage personnel with work tasks and objectives (Kahn, 1990, p.

714; 1992). Scholars have drawn on the Broaden and Build theory (Fredrickson, 2001) to suggest that psychological availability allows individuals to engage in specific behaviors and perform at a higher level (Binyamin, & Carmeli, 2010; Fredrickson & Losada, 2005; Russo, Buonocore, Carmeli, & Guo, in press). We build on this line of research to theorize about the condition of psychological availability as vital to the development of inter-organizational learning agility.

Personnel engagement is critical for diverse firm-level outcomes such as performance, innovation, financial returns, and safety, but it is particularly critical for addressing non-economic processes such as learning. Other benefits of psychological availability are a higher organizational commitment (Demerouti et al., 2001) and extra-role behavior that goes beyond economics (e.g., social and environmental), which are the hallmarks of effective vertical exchange (Schaufeli & Bakker, 2004). Since psychologically-available personnel are more committed and engaged, they are particularly motivated to get things done and seek ways to help their organization thrive (Schaufeli & Bakker, 2004). Such personnel vest themselves in *organizational citizenship behaviors* that go above and beyond their job description. They initiate new ideas, explore novel fulfillment options, and by so doing advance their organizations more rapidly towards more productive supply chain practices than less psychologically-available personnel (Harter, Schmidt and Hayes, 2002; Kahn, 1992; Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Saks, 2006; Weisbord, 1987).

Psychological availability and engagement are individual-level constructs. However, because they create commitment that is linked to so many advantageous outcomes, the causal link between personal-level engagement and organizational-level outcomes is clearly crucial. Personnel who are psychologically available in their jobs may be more likely to seek and give advice, *engage* productively with coworkers, and act as ambassadors to bridge inter-

organizational gaps (Alderfer, 1987; Bakker & Demerouti, 2007). Research shows that engagement is ‘contagious’ and because it is transferred from one person to another (Demerouti & Cropanzano, 2010; Westman, 2001) and even between individuals and teams (Bakker, Van Emerik, & Euwema, 2006; Salanova, Agut, & Peiró, 2005), we conceptualize psychological availability and engagement as ‘glues’ that bind buyers and suppliers in ways that allow them to develop the capacity to learn fast and adapt their mode learning to notice nuances quickly and accurately and enhance their level of responsiveness. Hence:

Proposition 2a: *When buyers and suppliers develop relationship commitment they are likely to instill and build a sense of psychological availability which, in turn, is likely to foster inter-organizational learning agility.*

Generativity. Generativity is defined as “strips of experience that bring a feeling of energy and aliveness to people and also have the potential to produce more enduring, expansive and transformative consequences” (Carlsen & Dutton, 2011: 15). Carmeli, Jones and Binyamin (in press, p. 5) conceptualized generativity-in-relationships and defined it as “the extent to which the relationships between team members provide them with the opportunity to generate, learn and seek new things.” Generativity has a strong externally-oriented focus because it motivates people to make a difference; e.g., to contribute to others, support the environment, and make the world a better place (Kotre, 1999).

As with engagement, generativity can contribute greatly to buyer-supplier learning agility. Generativity expands the parties’ motivation and ingenuity to support each other, but also to move beyond thoughts and words into substantive action. Whereas advice seeking and giving is inherently focused and verbal, generativity mobilizes people into action (often, ‘outside their sandbox’) so it is associated with tangible, value-creating behaviors. Under generativity people try to make their organizations more meaningful, engaging, useful, and inspiring, all of which are

attributes that are integral to organizational learning agility (Bushe, 2010; Dutton & Carlsen, 2011).

The complexity of supply chains; e.g., inventory, cycle time, quality, and the costs of materials, production, and logistics, to name a few, and the ability to manage tradeoffs hint at the importance of generativity for buyer-supplier learning agility. We posit that when buyers and suppliers develop a commitment to work relationships they invite each other into their space, seek ways to nurture the relationships and each other's capacities, and make efforts to allow each party in the relationship to grow. These micro-acts are crucial for building and cultivating inter-organizational learning agility. By inviting each other into their work space partners authorize access to knowledge and expand opportunities to learn fast and adapt new modes of learning and the co-creation of knowledge. When buyers and suppliers attempt to genuinely nurture their relationships and each other's capacity they shape a space in which an abundance opportunities to learn and acquire new knowledge are developed. When parties in a vertical relationship make efforts to support each other in such a way that each side grows to realize its full potential, they resource one another and energize themselves to open up to new opportunities for learning and accelerate this learning process (Dutton, 2003; Carmeli, Dutton, & Hardin, 2015; Friedman, Carmeli, & Dutton, 2015). Thus, we suggest the following proposition:

Proposition 2b: *In commitment-based relationships buyers and suppliers are inviting, nurturing and making mutual efforts that allow the development of generativity, which in turn facilitates inter-organizational learning agility.*

Reflective Reframing. We also propose that reflective reframing is conducive to facilitating inter-organizational learning agility. Hargadon and Bechky (2006) conceptualized reflective reframing as a construct that “represents the mindful behaviors of all participants in an interaction, where each respectfully attends to and builds upon the comments and actions of others” (p. 489). Thus, reflective reframing refers to the combination of rational, cognitive, and

analytical processes in which people extract new knowledge from what they know and learn (Jordi, 2011).

Our theorizing suggests that reflective reframing can support and accelerate buyers and suppliers' acquisition of learning agility for several reasons. Because reflective reframing is a process of active learning where people explore various, sometimes conflicting perspectives and procedures, when done regularly, it can greatly improve learning agility and harmonize buyer-supplier relations. Furthermore, because reflective reframing is also a process through which knowledge is produced by interacting with others, the ability to reconstruct and reinterpret one's own understanding of processes, communications, relations, and situations can facilitate learning agility. This takes place through a buyer-supplier co-effort to solve problems; in this context partner firms openly contemplate sharing their views as on emerging issues, such that new approaches to the problem are identified, redefined and addressed. Finally, given that reflective reframing is particularly useful as a learning process that involves action rather than just passive reflection, and because it is a process that involves dynamic testing of understanding, it is especially important for learning agility. Given the growing evidence that reflective reframing is instrumental in individual and team-based interactions, we posit that it should have the same positive effect on buyer-supplier learning agility. Put formally:

Proposition 2c: *Reflective reframing mediates the link between commitment-based relationships and inter-organizational learning agility, such that engaging in reflective reframing is likely to facilitate buyer-supplier learning agility.*

Inter-Organizational Learning Agility and Performance Outcomes

Research on different sources of learning shows that co-learning and learning spillovers are likely to improve the inventory performance of distributors (Yao et al., 2012). Similarly, shared learning among buyers and suppliers enhance a firm's competitiveness (Bessant et al., 2003) and allows access to new know-how and resources (Akande et al., 2010). Inter-

organizational learning is a concept that shifts the conceptualization of learning from a firm-level construct to a co-learning process in which partners learn from one another (Lane & Lubatkin, 1998). Following DeRue et al. (2012), we see inter-organizational learning agility acts as a bonding agent that unites supply chain parties, thus giving them more flexibility than parties who are less committed to learning agility. Inter-organizational learning agility is also a proactive, purposeful approach to jointly solve problems experientially, through interactions (DeRue et al., 2012), which explains why a reluctance to share information and an inability to co-learn are barriers to designing and cultivating a more productive supply chain (see also Thomas et al., 2011). In fact, as competitive markets become more complex, most buyers and suppliers are compelled to increase their flexibility, and learning agility is practically a precondition for the development of productive supply chain systems. When buyers and suppliers interact with others within their value streams, learning agility contributes not only competitive differentiation and superior performance but also provides insights on how to develop and continuously improve the supply chain management (Bessant et al., 2003; Isaacs, 1993; Lane & Lubatkin, 1998).

In inter-organizational learning situations, a fruitful dialogue nurtures “a sustained (co)collective inquiry into the processes, assumptions, and certainties that compose everyday experience” (Isaacs, 1993: 25). In this process, organizations unveil the meaning of work processes and actions taken by each party and primacy is placed on the whole. Collaborative thoughts, coordinated actions, and synchronized objectives mobilize buyers and suppliers to tackle complex problems more quickly and effectively—undertakings that a single party is unlikely to pursue (Isaacs, 1993). Thus inter-organizational learning agility is a key to an effective supply chain system. Our position is consistent with the view that valuable, rare, and difficult to imitate knowledge does not reside within a single firm but is distributed, often

diffusely across firms and personnel in a value network (Powell & Brantley, 1992). Firms that act as passive recipients of new knowledge are unlikely to fully understand cause-effect relationships regarding value creation in buyer-supplier relations, and therefore are less likely to adapt and develop their alliance management in general and their supply chain management in particular (Powell, Koput, & Smith-Doerr, 1996). Finally, research on strategic alliances suggests that when firms learn with their partners, they develop inter-organizational capabilities to reduce uncertainty, and by building on, integrating with, and modularizing others' assets, they are likely to build more effective cooperative arrangements that can yield mutual gains (Grant and Baden-Fuller, 2004). Hence:

Proposition 3: *Inter-organizational learning agility is positively associated with effective supply chain management.*

Commitment-based Relationships and Mutual Gains in Times of Crisis

While our arguments about commitment-based relationships, inter-organizational learning agility, and performance outcomes are theoretically driven, there are real-life boundary conditions that can impinge on the way these unfold. Specifically, there is a real temptation for each party in the value chain to increase its value by drifting to behave opportunistically. This is especially true in buyers' or sellers' markets. What is less obvious is how this short-term behavior influences performance in times of crisis.

Take the case where a supply chain involves a retailer "R," an importer "I," and a supplier "S" in a B to B to B context of a market of cotton-based clothing items. The role of "I" is essential because the supply chain operates across geographic and cultural divides ("R" in our case operates in the U.K. and "S" operates from China) and hence there is an important role for this intermediary.

The crisis situation is illustrated in Figure 2a and Figure 2b. They depict the cotton commodity and its performance level during the last quarter of 2010 and the first half of 2011. As shown, there is was substantial fluctuation and a severe decline from the peak point in March 2011. This was caused by a rare combination of a surge in demand, due to increased production mainly in China, and substantially reduced supply, due to adverse weather conditions in the major supply countries. As a consequence at the end of the third quarter of 2010 cotton prices started to climb sharply, there were strong feelings backed by rumors across the industry that the supply would be totally exhausted and that there would be a two to three month gap until the new crops would be available. This posed serious problems for suppliers, who feared that they would be unable to maintain production flow, as well as for retailers who would face a real threat of empty shelves and/or increased retail prices (in a rather depressed market environment) which would undermine sales and turnover.

R, I and S had been working together for many years and had developed a long-term understanding of each other's needs and capacities. There was strong relational commitment based on trust which was sustained while both parties competed in changing market conditions. Their mutual interests were to ensure a constant supply of goods at affordable prices for consumers. R through I provided S with market information about styles, designs, colors, volumes and market prices which enabled S to learn and develop knowledge regarding ways to optimize production planning and design products which would meet market expectations. All three parties recognized the potential long-term benefits of their relationship commitment and rejected all opportunities coming their way from time to time. Due to this smooth flow of information R, I and S realized the danger posed by cotton prices at a very early stage and were able to act swiftly and decisively ahead of the competition thereby making good use of the agility

of the supply chain. S alerted the other parties about the cotton shortage. R opted out of its normal routine of half yearly decisions and gave a full twelve month commitment to buy. This was a “bulk commitment” which ensured overall volume while delaying specific decisions to a later stage when fashionable designs and colors become more apparent. In that way the overall volume of cotton was assured while the flexibility of colors/designs was maintained. I, backed by R’s bulk commitment, instructed S to buy and keep enough raw cotton for a twelve-month supply. The importer (I) financed the purchase, solely based on its commitment to the relationship as it was absolutely critical to immediately fix the price because prices were climbing daily. There was literally no time to waste on lengthy negotiations, drawing up contracts and/or looking for securities. It was all done based on each party’s efforts to support each other and nurture the relationship and a sense of respect for each other’s existence. R trusted S to maintain production and not behave in an opportunistic way when tempting offers from “squeezed” retailers started to come through. R also appreciated I’s efforts to monitor and manage the operation smoothly and efficiently. Further, I trusted both R to maintain its bulk commitment, as well as S not to abuse the system by using the cotton for other higher paying customers. Finally, S accepted the vulnerability, as its executives believed that the other parties would stand by their commitment and take the produced goods at the agreed time period. As a result the parties fixed the price of cotton at about US \$1.25 and purchased enough cotton that served them until October 2011, a point in time when the cotton prices returned to normal. This case highlights how relationship commitment can be nurtured in times of crisis and in an international context, but more importantly how these forms of relationships can allow agile inter-organizational learning and adaptation to develop. It illustrates why fast learning and decisions are so crucial for producing mutual rather than singular gains.

DISCUSSION

As organizations expand and complement their economic objectives they realize that they also need to expand their collaborative capabilities across their entire value network. The ways in which organizations procure and process raw materials and interact with secondary and tertiary buyers and suppliers impact subsequent processes and performance. However, research has tended to address the macro-level issues and sheds only limited light on the micro mechanisms by which vertical work relationships develop and transform such that they can be a source of inter-organizational capabilities that in turn drive mutual gains. We developed a conceptual framework to describe and explain the micro socio-psychological processes by which buyers and suppliers transition from transactional ties to commitment-based relations, and explain why and how latter is a critical process that underpins the development of inter-organizational learning agility and impacts performance.

Our conceptual model integrates three micro-relational mechanisms: respectful engagement (Dutton, 2003), communication (Angwin et al., in press; Paulraj et al., 2008), and advice seeking and giving (Bonaccio & Dalal, 2006; Lee, 1997) that underpin the first transformational process—the buyer-supplier movement from transactional ties to commitment-based relations. We also noted that despite progress in research on firm capabilities, our knowledge about inter-firm capabilities, and particularly on how to enhance buyer-supplier learning agility is limited. We developed a theory based on three mechanisms—psychological availability (Kahn, 1990) generativity (Dutton & Carlsen, 2011), and reflective reframing (Hargadon & Bechky, 2006)—that transform relationship commitment into inter-organizational learning agility. This is an important conceptual objective, because our understanding of how

buyers and suppliers enact co-learning to develop mutually beneficial gains has been relatively slow to accumulate (Dyer & Nobeoka, 2000; Lincoln, Ahmadjian, & Mason, 1998). We also stressed that in the absence of inter-organizational learning agility, the buyer-supplier partnership may not materialize its full synergistic potential and thus may not allow parties to utilize that co-creation benefits to develop a competitive edge in the marketplace.

The uncertain processes and outcomes related to the pursuit, development, and maintenance of vertical exchange management are quite daunting. We argued that the development and coordination of vertical exchange management is an ongoing process that spans time, organizations, and personnel (as well as stakeholders) who are vested in their value network. The complexities involved in vertical exchange explain why strong commitment and inter-organizational learning agility are such critical modalities for buyer-supplier relations. Given the iterative nature of vertical exchange, improved performance should be associated with attention to inter-organizational learning agility. As a result, measuring, understanding, and thereby better managing the inter-organizational learning curve over time is a key to revealing how parties obtain mutual gains.

Implications for Theory and Research

This article makes several contributions that can enhance both theory and practice of micro-foundations of vertical – buyer-supplier – relationships. We tackled the strategic and managerial challenge of transitioning from transactional ties to commitment-based relationships that organizations face while trying to craft and effectively augment their vertical exchange management. This is important because designing and managing a firm's value chain must take account of a greater value network which entails some degrees of embeddedness. The latter requires some modes of collaboration, but organizations often struggle to decide with whom they

should form a business exchange, when, and most critically how to collaborate. While it is vital to examine the characteristics of firms and their suppliers from a macro perspective, we sought to complement this effort by advocating a processual perspective to unveil micro mechanisms that help transmute transactional ties into commitment-based relationships. This endeavor advances theory development about the dynamic exchange between buyers and suppliers and explains how this transformational process is enacted.

Our research points to three relational mechanisms that are especially conducive for this transitioning process. From a practical point of view, organizations can design and shape these relational practices to facilitate more collaborative exchanges that not only preempt detrimental outcomes but create positive dynamics. In fact, in retrospect, we can see how vertical exchanges create inter-organizational demands that can only be addressed effectively when buyers and suppliers work closely together. Clearly, this requires a different perspective that does not only look at the relative (economic) cost, but rather develops a more holistic approach in which organizations do not ask "what's in it for me" but for "what's in it for us, our counterparts," and the broader ecosystem.

Further, by complementing operational and strategic perspectives and redirecting attention to micro processes, our research sheds light on how buyer-supplier relationships can be transformed and the ways a commitment-based relationship may be conducive for the development of inter-organizational learning agility. This approach can advance research that calls for a processual perspective to better understand some of the dynamics involved in vertical relationships. This type of theoretical lens is vital because it advances a better understanding of socio-cognitive mechanisms that underpin inter-organizational learning capabilities and their performance implications in vertical exchanges.

Another contribution concerns our attempt to unveil micro-mechanisms that underpin the development of inter-organizational capability. We presented some important insights into the micro-foundations of strategic capabilities. Research has mainly concentrated on psychological mechanisms that underlie resource development within a firm (e.g., Carmeli, Jones, & Binyamin, in press; Garbuio, King, & Lovallo, 2011), and noted that there have been limited efforts to study the micro-foundations of inter-organizational capabilities. Considerable attention has been given to cognitive mechanisms, but recent research has begun to explore socio-psychological processes that may help understand how resources and capabilities are developed and cultivated (Hodgkinson & Healey, 2011). We suggested that delving into these micro mechanisms is necessary for developing a more nuanced theory of inter-organizational learning agility. We hope to advance theory about co-learning (Lane & Lubatkin, 1998) by capturing the speed and flexibility of the inter-organizational learning process that unfolds through buyer-seller exchanges. A focus on learning agility is important because despite a solid understanding of its underlying mechanisms at the individual level (DeRue et al., 2012), there is only scant evidence on about the ways in which inter-organizational learning agility develops. Although research on strategic agility and ‘general’ learning has developed over the last several years (Brueller et al., 2014; Doz & Kosonen, 2010; Junni et al., 2015; Weber and Tarba, 2014) we see inter-organizational learning agility as a distinct concept that extends the process of learning to an inter-organizational capability. In 2013 for example, Apple revealed a list of its top 200 suppliers from which it obtains materials and components and assembly services that account for more than 97% of its worldwide procurement expenditures. While it has been accused of tough contractual arrangements with these suppliers, it helped finance the establishment of new factories for GT Advanced, and Japan’s Sharp Corp, among others. Although critics have

claimed that these very specific investments breed excessive interdependency and allow Apple to squeeze a lower cost structure, the company places primacy on its commitment to collaborative exchange; parties engage in a co-inquiry process and develop an intimate understanding of the issues at hand which underlie inter-organizational learning agility.

Avenues for Future Research

A focus on micro socio-psychological processes can help shed light on how a behavioral theory and human resource management lens can inform the study of buyer-supplier relationships and capability development within and across partner firms. Specifically, we hope that our theorizing will open up a new line of research that will allow the development of a more nuanced view on the dynamic nature of buyer-supplier relations and the sub-processes that underpin changes in vertical work exchanges. We theorize about the relational mechanisms that serve to transform transactional ties into relationship commitment. Clearly, this needs to be examined empirically using data from both buyers and suppliers over time, a challenging and complex endeavor, since there may be behavioral, emotional and normative mechanisms left unexplained. For example, buyer-supplier relations often occur in interactions between two individuals who form work relationships over a relatively long-period of time. A micro-foundation lens taps this dyadic interaction and can enhance our understanding of how work relationships between two key individuals influence meso- to macro-level processes and outcomes. Such an approach can be harnessed to examine how capacities of positive work relationships and their experiences (Dutton & Heaphy, 2003) are developed and their implications for work processes and outcomes.

A different approach would be to consider how corrosive work relationships between buyers and suppliers emerge and more importantly how such negativity can be remedied. For

example, little is known about how human resource management approaches influence the type of relationships formed between buyers and suppliers. Commitment- and transactional-based human resource management approaches may have different influences on the work attitudes of the individuals responsible for the interactions between buyers and suppliers, and these attitudes can explain how they approach each other. It is likely that a transactional-based HRM approach organization S (supplier) will lead to less committed and satisfied employees and they may, intentionally or unintentionally, influence the ways a supplier's employee interacts with the representative of organization B (i.e., buyer) through their attitudes and associated feelings. This scenario is only one of many that combines macro and micro processes to suggest how poor relationships between buyers and suppliers may arise.

We also encourage research on the socio-psychological mechanisms that translate relationship commitment into inter-organizational strategic capabilities in general and inter-organizational learning agility in particular. Although we attempted to bolster theorizing about this transformational process, we believe that this area is in its embryonic stages of development. Learning agility is a new concept that requires further research attention (DeRue et al., 2012), and even less is known about on inter-organizational learning agility. While a cognitive perspective has tended to dominate research on learning, scholars have recently adopted a socio-behavioral approach to learning (Kozlowski & Bell, 2008) which may be useful to explain why some organizations can develop co-learning processes (see Myers, 2014). Research has pointed to different modes of learning but has rarely examined how organizations, groups, and individuals can improve their capacity to learn fast and adopt a more flexible approach to learning. This suggests that the mechanisms that underpin agile learning processes from direct

experiences and indirect experiences may vary, which opens the door to new explorations of different modes of learning agility.

Conclusion

By integrating micro-foundations into macro-level phenomena, this article argues that vertical exchanges require ongoing thoughtfulness and purposeful action by all players in a value network. We focused on vertical business exchanges that hinge on strong inter-organizational commitment, and developed a theoretical model that reveals the processes that transform transactional ties into commitment-based relationships. It also shed light on how commitment-based relationships can turn into productive vertical exchange management through the development of inter-organizational learning agility. The core message is that buyers and suppliers can and should tackle the development of productive vertical exchanges and the strategically important micro-mechanisms that underpin inter-organizational capabilities. We hope that this work will open up new opportunities to integrate behavioral theory and explore how this approach, and its various anchors, can inform the study of cooperative strategy in general and vertical exchange management in particular.

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Figure 1:
 Transforming Vertical Work Relationships:
 Implications for Building Inter-Organizational Learning Agility and Enhancing Mutual Gains

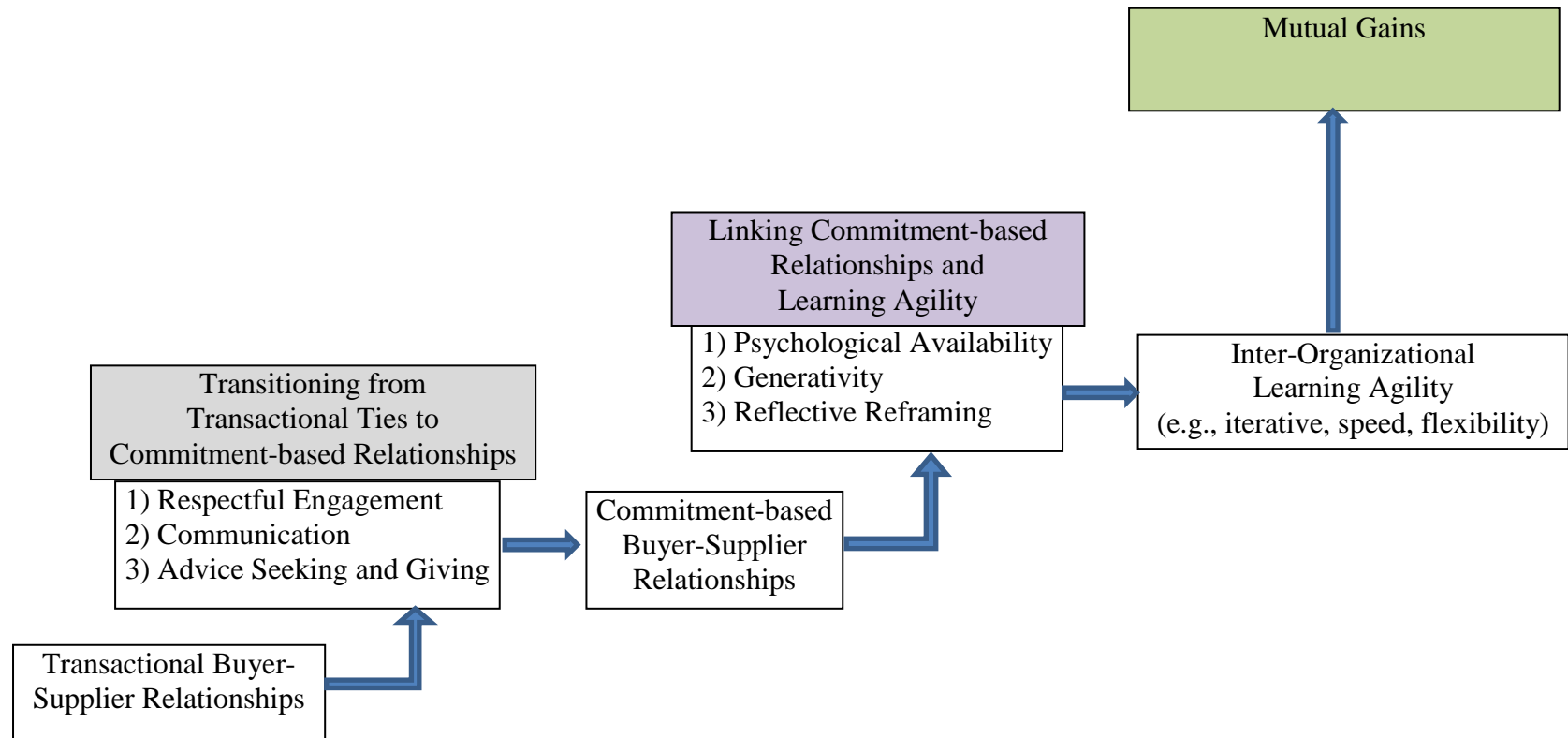


Figure 2a:
Fluctuations in the Cotton Commodity Market

CT - Cotton #2 - Weekly Nearest OHLC Chart



Figure 2b:
Fluctuation in the Cotton Commodity Market

