The role of relational architecture in developing relational capability: organizational levers for strategic relationships

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Abstract
In this paper we specify and evaluate internal and external elements of relational architecture and empirically test their influence on relational capability and relationship quality. We find significant relationships between both internal and external relational architecture and relational capability and between relational capability and relational quality.

Keywords: relational architecture, relational capability, relationship quality

INTRODUCTION
Decision makers increasingly extend the resource-based view (RBV) (Wernerfelt, 1984; Barney, 1991) beyond firm boundaries. They recognize that the information, ideas, and technologies required to build an inimitable advantage reside in the extended supply chain network (Gulati, 1998; Madhok, 2002; Lavie, 2006). Gulati and Kletter (2005) argue that firms must invest in the ability to build appropriately unique value-added relationships to access these resources. The resulting high levels of relational quality enable firms to work together to develop and deliver distinctive customer value (Morgan and Hunt, 1994; Dyer and Singh, 1998; Madhok and Tallman, 1998). Thus, a firm's relational capability is critical to long-term financial and competitive success (Dwyer et al., 1987; Lavie, 2006).

Integrating trading partners' complementary resources within a competitive strategy requires that firms and their sourcing organisations develop the governance skills and relationship infrastructure needed to enable trust-based exchange, enhanced information flow,

and more rapid knowledge transfer (Lorenzoni and Lipparini, 1999; Madhok, 2002; Lavie, 2006). Unfortunately, despite evidence that cooperative relationships are beneficial in several contexts, extant research shows low success rates among inter-firm collaborations, indicating that the process of building relational capital and stronger relationships is not easily mastered (Cousins and Spekman, 2003; Fawcett and Magnan, 2002; Barringer and Harrison, 2000; Madhok and Tallman, 1998). Inherent challenges, which are manifest in both intra-organisational and inter-organisational dynamics, inhibit the establishment of cooperative relationships (Spekman and Carraway, 2006; Fawcett and Magnan, 2002). Despite the volume of work supporting a relational approach, few efforts examine the necessary investments—and how they fit together—that underlie a relational capability. Without better understanding this underlying infrastructure, it will be difficult to systematically improve strategic supplier relationships.

Importantly, Nadler et al. (1992:15) describe the "art of shaping organisational space to meet human needs and aspirations" in terms of the principles of architecture—purpose, fit, materials, and technologies. They posit that organizational architecture (OA) integrates diverse systems to enable capability development. Jacobides (2006) recognised the influential role of OA on capability development, suggesting that shifting organisational boundaries catalyse changes in division of labour within and between firms (i.e., structure) and affects the development (and disposal) of relational capabilities. Indeed, Jacobides captured the essence of relational capability, asking, "How does the inter- or intra-organisational architecture affect our ability to 'find new recipes,' go into 'the great unknown'?" (Jacobides, 2006: 159) and called for more research into the relationship between architecture and capabilities.

We suggest that applying the notion of architecture to the context of boundary-spanning relationships may provide insight regarding how companies can more effectively establish a relational capability. Specifically, we argue that the relationship between buyer and supplier is influenced by core OA elements, including strategy (e.g., firm boundary and division of labour), organisational structure (e.g., cross-functional and cross-organisational teams), processes (e.g., information exchange, design), people (e.g., functions and individuals), and culture (e.g., collaborative) (Amaral et al., 2011). This article therefore seeks to enrich and test theory regarding how investments in relational architecture can strengthen a firm's relational capability and enhance the quality of a firm's critical trading relationships. Such research is needed since despite growth in the volume of work supporting the relational view (e.g., Lavie, 2006; Cousins et al., 2006; Zacharia et al., 2009; Chatain, 2010; Handley, 2012), no studies examine the organisational and relational architectures driving the development of a relational capability. Chatain (2010) and Sirmon et al. (2011) suggest it is now important to assess how firms develop the relational capital necessary to accomplish strategic goals they could not achieve on their own.

THEORETICAL BACKGROUND: ARCHITECTURE & CAPABILITIES
A growing pool of research supports the position that collaborative inter-organisational relationships improve competitive performance (Dyer, 1997; Lorenzoni and Lipparini, 1999; Carr and Pearson, 2002; Allred et al., 2011; Cao and Zhang, 2011). Scholars observe changes in the supply function that reflect an increasingly strategic role for key supplier relationships (Cousins and Spekman, 2003; Tan et al., 2002), noting the importance of segmented relationships, a long-term orientation, and enhanced communication (Chen et al., 2004). For example, firms continue to grow outsourcing as an approach to focus resources (Holcomb and Hitt, 2007), reduce costs (Shin et al., 2000), and access knowledge and innovation (Wagner, 2012). Of course, the nature of a supply relationship should be contingent on elements such as

factor market structure (Dierickx and Cool, 1989), strategic importance (Cousins and Spekman, 2003; Carr and Pearson, 2002), and transaction costs (Bensaou, 1999). Collaborative strategies are reserved for relationships that possess high value co-creation potential (Fawcett et al., 2012)

To obtain collaboration's operational and financial benefits, firms must build social capital, which generally refers to the accumulated goodwill (Adler and Kwon, 2002) and the overall asset created by gaining access to actual and potential resources embedded in networks. A similar construct, relational capital, 'refers to the level of mutual trust, respect and friendship that arises out of close interaction at the individual level between alliance partners' (Kale et al., 2000: 218). High levels of relational capital are linked to performance improvements for both buyers and customers (Collins and Hitt, 2006; Krause et al., 2007; Lawson et al., 2008). Social and relational capital are conceptualized as resource stocks (Dierickx and Cool, 1989), to be nurtured and developed for the purpose of leveraging the value residing in network resources (Amit and Schoemaker, 1993; Lorenzoni and Lipparini, 1999).

Organisational Capabilities and Routines
Capabilities are bundles of "the organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die." (Eisenhardt and Martin 2000: 1107). Zollo and Winter (2002: 310) emphasize learning and renewal, claiming a capability is a "learned and stable pattern of collective activity through which the organisation systematically generates *and* modifies its operating routines in pursuit of improved effectiveness." The learning that makes organizational capabilities valuable competitive levers emerges because capabilities are socially complex, exemplified by positive reputation among suppliers and interpersonal relations among managers (Barney 1991, p 110).

In their review of the RBV, Kraaijenbrink et al. (2010) observe that the RBV does not adequately demarcate among the variety of resources implied by the theory. Improving the RBV requires more clearly distinguishing between *building* capabilities and the managerial processes to *deploy* capabilities. They further note that most empirical RBV research places capabilities as independent variables and performance measures as dependent variables, and is therefore silent regarding how firms go about developing and deploying capabilities. In response to this critique, we explore the organisational levers that support the micro-foundations of relational capability—*the how*—as well as investigating the outcomes of deployment.

A Relational Capability
Grant (1996) proposed a hierarchy of capabilities, noting that not all capabilities are of equal competitive value. Grant argued that because higher-order capabilities—such as faster time-to-market (Lorenzoni and Lipparini, 1999) and a firm's ability to effectively execute post-acquisition integration processes (Zollo and Winter, 2002)—combine multiple resource bundles, they are difficult to imitate and therefore a source of advantage. As a relational capability requires 1) the structure and processes to identify complementary resources, 2) the informal socialisation skills to develop trust and earn access, and 3) the technical skills to integrate knowledge across multiple organisations, we consider a relational capability to be a higher-order capability. Specifically, we define a relational capability as:

> *A firm's ability comprising intra- and inter-organisational routines to continuously and systematically access, enhance, integrate, and reconfigure network resources and capabilities to achieve differential advantage.*

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The higher-order complexity, combined with the commitment and resource dedication needed to build relational processes and routines, contributes to the inimitability of a relational capability (Ring and Van De Ven, 1994). Barringer and Harrison (2000) noted the challenges of building a relational capability, concluding that, "making business partnerships work is a fragile balance of competing forces." They also highlighted the dearth of research addressing *how* inter-organisational relationships should be managed to achieve relational rents. To move the theory related to relational capabilities forward, a better understanding of its architecture is needed.

Relational Architecture
Although complexity contributes to inimitability, it also makes cultivation of a relational capability difficult. Simon (1962) explains that complex systems consist of a "large number of parts that interact in a non simple way" (1962: 468) and notes that hierarchically organised systems can be decomposed into core elements. In their description of organisational architecture, Nadler, et al. (1992) decompose organisations into the sub-systems of structure, processes, information flow, and values. Others have included strategy, structure, processes, culture, people, decision rights, and evaluation/rewards in the set of architectural elements (Howard, 1992; Nadler and Tushman, 1997; Smith and Tushman, 2005). Acknowledging the lack of a robust definition for organisational architecture, Jacobides (2006) identifies structure, division of labour, resource allocation mechanisms, and interdepartmental coordination as key elements, all affected by changes in organisational boundary.

In the context of inter-organisational alliances, Gulati and Singh (1998: 785) note that decisions regarding architecture, including division of labour and the decomposing of tasks, will drive coordination costs because "complex and overlapping division of labour will entail continuing and mutual adjustments between partners." Their "architecture of cooperation" includes a variety of coordination controls such as contracts, incentive structures and dispute resolution procedures. They remind us of Litwak and Hylton's (1962: 399) observation that inter-organisational relationships have an added challenge "since there is both conflict and cooperation and formal authority structure is lacking." More recently, Fjeldstad et al. (2012) apply the concept of architecture to collaboration, observing new organisational forms that are less reliant on hierarchy and its limitations on information flow and decision-making. They note that the new models utilise architectural principles of computing systems, and include actors that can self organise, a commons where actors congregate and share resources, and the processes and infrastructures that enable multi-actor collaboration. Although positioned differently, these elements are consistent with those suggested by Nadler et al. (1992).

Synthesising the literature, we suggest the following elements combine to create a firm's relational architecture (RA): structure of a firm's boundary spanning resources, the division of labour within and between firms, resource allocation mechanisms, inter-organisational coordination practices, people, information and communication processes, metrics and rewards, and culture. Borrowing from Teece (2007), the elements of RA together provide the foundation on which a firm's relational capability is developed and nurtured so that complementary capabilities across organizational boundaries can be configured for competitive advantage.

MODEL AND HYPOTHESES
We have so far have noted that inter-organisational relationships provide access to knowledge and resources lying outside firm boundaries, which may be combined with a firm's own resources to create advantage and achieve relational rents (Dyer and Singh, 1998; Lavie, 2006).

Gaining access to the complementary resources embedded in a network is a function of a firm's relational capability, which manifests in higher quality relationships (Lorenzoni and Lipparini, 1999; Gulati and Kletter, 2005; Collins and Hitt, 2006). Relationship quality reflects relational capital, the 'stock' that motivates partners to invest time, energy, and creativity in a relationship. Finally, a firm's relational architecture provides the foundation on which relational capabilities are developed (Sawhney and Zabin, 2002; Teece, 2007).

Based on the idea that high-level capabilities "reflect experiential wisdom in that they are the outcome of trial and error learning and the selection and retention of past behaviors," we posit that firms that are more capable (i.e., more experienced and mature) in managing strategic suppliers have designed relational architectures that lead to better outcomes. Through learning, they alter the elements of their relational architectures—structure, processes, people, technology, resource allocation, and metrics—to enhance their capability to manage strategic supplier relationships for competitive advantage.

Focusing first on the desired outcome, we note that relationship quality has been identified as the strongest driver of tangible, observable outcomes (Palmatier et al., 2006). The primary dimensions of relationship quality are strikingly similar to social and relational capital, all including trust, commitment, and relationship satisfaction (c.f. Dorsch et al., 1998; Skarmeas et al., 2008). Other important elements of relationship quality include customer orientation (Dorsch et al., 1998), understanding (Leonidou et al., 2006), and expectations of continuity and willingness to invest (Jap et al., 1999). The social factors characterising exchange relationships (e.g., trust, obligation, and relational norms) are critical as they can affect partners' willingness to contribute their valuable resources (Jap et al., 1999). The connection between relational capability and relationship quality provides the foundation for our first hypothesis:

> **Hypothesis 1**: *Organisations possessing a mature relational capability will achieve higher levels of relationship quality with strategic suppliers.*

The Role of Relational Architecture

Boundary decisions—i.e., the division of labour within and between organisations—shape the capabilities and resources developed by the firm (Jacobides, 2005; Jacobides, 2006). For example, as organisations increase levels of outsourcing (Gulati and Kletter, 2005; Holcomb and Hitt, 2007), they reduce their need to develop certain internal skills but they become more reliant on their supply network for those resources and capabilities (Slowinski et al., 2009; Weigelt, 2009). As such, they need to build distinct skills to manage their supply base effectively. This reality requires examining both intra-organisational and inter-organisational elements of relational architecture (Litwak and Hylton, 1962) to understand how they influence the development of a relational capability, especially with strategic suppliers. We therefore distinguish the OA decisions that affect internal routines and policies from those that affect external, boundary spanning routines and processes. The elements of internal and external relational architecture together provide the foundation on which a firm's relational capability is developed and nurtured.

Internal relational architecture

Teece et al. (1997) link architecture and capabilities, stating the 'microfoundations' of dynamic capabilities include distinct skills, processes, procedures, organisational structures, and decision rules. For example, leading supply management organisations document the supply process and the outcomes of diverse relationship strategies (Olsen and Ellram, 1997). They also undertake

performance assessments to give insight into the return on investment of close ties with strategic suppliers (Chen et. al, 2004). Such analysis justifies trust-building initiatives such as the sharing of benefits with suppliers (Cousins et al., 2006).

Internal relational capability also reflects the ostensive aspects—the decision frameworks (e.g., policies, processes, and measures) a firm develops and maintains (Feldmand and Pentland, 2003). For example, governance policies between channel members can be characterised by the contracts that define the relationship. Lusch and Brown (1996) find that normative contracts (those that suggest mutual understanding) are positively related to both relational behavior and improved performance. Li, Poppo, and Zheng (2010: 355) demonstrate that contracts can "reduce cognitive and coordination barriers and thus strengthen the impact of relational mechanisms on knowledge acquisition." Adjusting contracts to reflect the relational nature of a desired exchange, particularly in the case of buyers seeking critical resources in their networks, is a policy decision and an element of internal relational architecture.

Ultimately, building the relational routines necessary to identify high-performing suppliers, develop collaboration opportunities, integrate resources, and build trusting relationships requires high levels of internal organisational commitment and resource dedication (Ring and Van De Ven, 1994; Leiblein and Miller, 2003; Lavie, 2006; Weigelt, 2009). Such commitment emerges when a firm recognises the value-creation potential embedded within the supply network and elevates supply management to a strategic position within the firm. Indications of such commitment include adjusting the organisational structure by creating organisational units focused on supply relationships, devoting human assets in the form of executive sponsorship, dedicating relationship leaders, and building cross-functional supply management teams (Dyer and Singh, 1998; Krause *et. al*., 2007). As investments in internal relational infrastructure are expected to be associated with improved supply performance (Dyer, 1997; Wu, et al., 2006), we posit:

> ***Hypothesis 2***: *Internal relational architecture (restructuring contracting policies, policies to jointly reduce costs, performance metrics, integrating suppliers into product development, and continuous improvement processes) positively affects the level of relational capability.*

External relational architecture

Shaping the inter-organisational space in which relational exchanges occur is the essence of external relational architecture. Appropriate external architecture aligns relationships and governance structures with the characteristics of the purchase. Linder et al. (2003) suggest firms should actively establish the structures, mechanisms, and processes to bridge inter-organisational boundaries. Although contracts can address the more tangible objectives (e.g., financial goals) of inter-organizational relationships, areas that address culture, work spaces, and information flows require more high-touch mechanisms. For instance, timely access to and analysis of accurate information is vital to supplier evaluation so that the dark side of cooperative relationships can be assessed, enabling closer fit between relationships and governance modes (Krause et al., 2007; Day et al., 2013). Evaluation requires capable internal measurement systems as well as more frequent, open, and honest communication with suppliers (Lawson et al., 2008). Performance feedback further increases transparency and can focus attention and resources on areas of improvement. When strategic information—including evaluation criteria and performance results—is collected, analysed, and disseminated, both relationship quality and performance improves (Lorenzoni and Lipparini, 1999, p. 332).

Cognition in relationships and networks includes the understanding the implications of supplier strategies (Bernades, 2010) and is driven through upper-level meetings and conversations of performance and plans. Better relations enhance supplier development efforts and allow firms to work more effectively together to improve underlying routines and essential value-creation processes (Collins and Hitt, 2006; Carr and Kaynak, 2007; Krause et al., 2007). Both parties are more willing to contribute energy and creativity to improvement and joint problem solving (Saccani and Perona, 2007). Importantly, close relationships provide the time and space necessary for learning how to work together, increasing both the need and desire to share information (Carr and Pearson, 2002). Lorenzoni and Lipparini (1999: 332) observe symbiosis in this relationship, noting, "Inter-firm ties are enhanced over time by the creation of a sense of community and trust, daily activity in knowledge access, and co-design practices."

Creating joint value-added processes, conducting performance evaluation at multiple levels, and understanding the effects of supplier strategies and capabilities are routines that are features of external relational architecture. We therefore posit:

Hypothesis 3: *External relational architecture decisions (involving information sharing, strategic planning, executive reviews and joint process improvement) positively affect the level of relational capability.*

To summarize, relational architecture shapes the behavioural, cultural, and structural factors that configure inter-organisational space, defining the firm's relational capability and determining its ability to cultivate the high-quality relationships needed to access, enhance, and integrate network resources (Dyer and Singh, 1998; Madhok and Tallman, 1998; Lorenzoni and Lipparini, 1999).

METHODS

To firmly ground the research and provide the context for construct development we detailed the thorough literature search to provide the insight needed to design the survey and interview guide.

Gaining an understanding of relational architecture requires the careful and consistent selection of the survey's key informants. Because the constructs of interest (relational architecture and capability development) and the unit of analysis (strategic supplier relationships) involve collaborative interactions and broad organisational accountability, we identified directors and vice-presidents as the appropriate key informants. Such individuals also possess an understanding of overall firm-level performance. Two professional associations with a strong European presence—the International Procurement Leadership Foundation (IPLF) and the Council for Supply Chain Management Professionals (CSCMP)—helped compile a mailing list consisting of their senior-level executives. The entire membership of the IPLF was combined with a randomly selected group of 2,000 CSCMP members. Such an approach to defining the sampling frame is found to be robust by other studies (e.g. Carr and Pearson, 2002). The survey process followed Dillman's (2007) Tailored Design Method. We contacted respondents by email on three separate occasions. The first email (including a link to the questionnaire) was followed up with two reminders (each sent two weeks apart representing a total data collection period of seven weeks in duration). A total of 3,099 questionnaire completion requests were sent via email, with 809 being returned. To evaluate non-response bias as well as to rule out systematic differences between responses received at various stages of the data-collection process, analysis of variance was used to compare sets of responses, including early versus late responses (Armstrong and Overton, 1977; Hair et al., 2006). No significant differences are identified, suggesting that response bias does not unduly confound further analysis.

Analysis: construct evaluation and model fit

To test the hypothesised relationships, survey questions were developed following the scale-development procedures suggested by Churchill (1979). Items used in the constructs were derived from previous research, either from existing scales or documented empirical results.

Because SEM is sensitive to non-normality, the constructs were tested for normality following the procedures outlined by Hair et al. (2006). None of the measures exceed the recommended thresholds for skewness or kurtosis, thus maximum likelihood estimation is appropriate (MacCallum et al, 1992). We further evaluated the construct acceptability in a multi-stage fashion beginning with an exploratory factor analysis (Principal Component Analysis; Varimax Rotation) on both the independent and dependent measures (Hulland, 1999; Gerbing and Anderson, 1988). The results, assessed with the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity (Hair et al., 2006), fully support the hypothesised factor structure. That is, items belonging to one construct load substantially (greater than 0.5) on a common factor and no larger than .30 on any other factors (Nunnally, 1978).

Next, we evaluated the adequacy of the measurement indicators by assessing the loadings of individual items on their constructs (Shook et al., 2004). All items load onto their predicted latent variables very strongly and significantly, and all manifest variables also have high R^2 values, suggesting acceptable reliability (see Table 3). Constructs were then assessed for reliability via Cronbach's alpha coefficients as well as composite reliability scores for each construct (see Table 4). The alpha coefficients range between .73 and .86 and the composite reliabilities range between .80 and .89, which indicate excellent reliability (Chin, 1998). Finally, the convergent and discriminant validity of the measures were assessed using the average variance extracted (AVE) for each construct as well as the correlations between the constructs. As Table 4 indicates, the AVE for all constructs is greater than .5 and therefore demonstrates satisfactory convergent validity (Chin, 1998). Since the square roots of the AVEs (i.e., the bold, diagonal column) are greater than the correlations between the constructs, acceptable discriminant validity is demonstrated (Chin, 1998; Fornell and Larcker, 1981).

To summarize, the constructs are adequately normal, theoretically unique, and possess good reliability as well as acceptable convergent and discriminant validity. We can be reasonably confident that the measured items reflect the theoretical constructs they are designed to measure. Further, since use of rigorous tests to establish convergent and discriminant validity have shown the factors to be distinct and unique, we conclude that common methods bias does not unduly affect the interpretability of the findings (Podsakoff et al., 2003).

To test the hypothesised relationships, we estimated a series of covariance-based structural models. Specifically, because the Chi-Square test is baised against large samples (Bollen and Long, 1993; Bollen, 1989), a number of random sub-samples were deveoped of N=150, N=300 and N=400. The ratio of chi-square divided by the model's degrees of freedom (χ^2/df) is estimated, yielding a χ^2/df score of 3.6, which falls within suggested boundaries for acceptable model fit (see Medsker et al, 1994; Tanaka 1993; Bollen and Long, 1993). The summary fit indices also provide evidence that the proposed model fits the data well (CFI=.899, IFI=.900., GFI=.926, AGFI=.900, RMSEA=.062).

Further, to determine the significance of the paths and to ensure robust estimates, we applied bootstrapping re-sampling procedures with varying sample and case sizes (Chin 1998), yielding stable results. The results reported in Figure 3 are based on 200 samples of 500 cases (Hair et al., 2006). Importantly, the R^2 values also provide evidence of the explanatory power of

the model. Following norms for interpretations of the effect size of R² values by Clark-Carter (1997), the reported effect sizes are classified as large.

RESULTS AND DISCUSSION

Hypothesis 1 assesses the influence of a firm's relational capability on relationship quality. The β-coefficient of .55 shows that Relational Capability is positively and strongly related to Relationship Quality (t = 9.127, p < .01). Firms that focus on strategic supplier management, establish executive sponsorship, define process ownership, and pursue continuous improvement in partnership with strategic suppliers achieve higher levels of relationship quality. The relationship quality construct contains items matching the foundational elements of relational capital, including trust, commitment, and relationship satisfaction. Two items indicate satisfaction—suppliers wanting to work with customers and seeing them as a preferred customer. Trust is captured through open and cooperative relationships (on both sides of the exchange), clarity in roles and responsibilities, and transparency regarding contact points. Interest in joint returns and value creation over simple price reductions indicates a commitment to a relationship. The strong relationship between relational capability and relationship quality validates the development of close relationships with strategic suppliers, those that capture resources and nurture capabilities deemed critical to the buying firm.

Relational architecture

The RBV has evolved to argue that *how* a firm organises and deploys resources which highlights the role of architecture in achieving a relational capability and characterises the organisational mechanisms necessary to access strategic network resources (Dyer and Singh, 1998). Hypotheses 2 and 3 therefore evaluate the influence of internal and external relational architectural routines in the relational capability development process. Specifically, routine investments are best leveraged for advantage when they contribute to building exchange environments that enable enhanced collaboration among strategic trading partners. Sawhney and Zabin (2002) depict relationally-mature firms as having support from top leadership, high satisfaction levels across relationships, an optimised infrastructure for relationship management, integrated and coordinated processes, and strong performance measurement programs.

Hypothesis 2 examines the influence of a firm's investments in internal relational architecture; that is, the commitment of resources to supply initiatives and the development of effective supply frameworks. The β-coefficient of .53 denotes that Internal Relational Architecture is positively and strongly related to Relational Capability (t = 8.10, p < .01). A firm's emphasis on establishing the internal organisation, frameworks, and skills to work effectively and proactively with suppliers is critical to the development of a relational capability. Building joint improvement and new product teams that are supported by redefined metrics and incentives refocus the organisation on relational rather than focal-firm-only capabilities. Adapting governance levers, specifically through aligned contracts and metrics, supports relational exchange and contributes to a collaborative relational space.

Hypothesis 3 explores the effect of a firm's investments in external relational architecture; that is, initiatives designed to understand supplier abilities and strategies, increase the frequency and intensity of collaborative activities, and enhance governance through feedback and communication at high-levels in the hierarchies of each firm. The β-coefficient of .20 reveals that External Relational Architecture is positively and significantly related to Relational Capability (t = 4.61, p < .01). To build effective and appropriate relationships with suppliers,

granular and timely information regarding supplier performance is necessary. Creating structure and processes to share this information—at the highest levels in the firms—supports open communication and trust-building. Over time, moving from performance feedback to discussing strategic plans further cements cognition and understanding. This information must then be translated into specific collaboration programs. The overall construct mean of 2.80 indicates that firms are not fully engaged in establishing a vibrant external architecture.

CONCLUSIONS & MANAGERIAL IMPLICATIONS

The resource-based and relational views of the firm suggest that firms can access and reconfigure resources and routines that reside outside of their organisational boundaries to capture superior rents. However, relatively little empirical research has been conducted to examine the internal and external architecture necessary within and between buyers and suppliers. To redress this gap in the literature, our study investigates the linkages between structural and infra-structural decisions made in the firm and with partners (relational architecture), skill and maturity of managing relationships (relational capability) and the satisfaction and quality associated with those relationships (relational capital).

Given the inexorable shift to increased outsourcing, the mandate for buying firms is to ensure that critical and scarce resources are still available to other users and processes in the company. In exchanges with strategic suppliers, these results indicate that 'architecting' collaborative space through policies and behaviours improves—and learning how to improve policies and behaviours over time—results in higher relationship quality. Building relational capital with strategic suppliers enables access to technology and other critical resources. Crafting thoughtful policies regarding incentives and metrics, working jointly on improvements and corrections, and integrating with suppliers at early development stages enhance a firm's relational capability. Maturing organisational procedures and structures to manage strategic relationships with executive-level oversight exemplifies strategic supplier management. Clarity of responsibility for strategic relationships can accelerate the learning process and increase access to strategic resources that are embedded in trading networks.

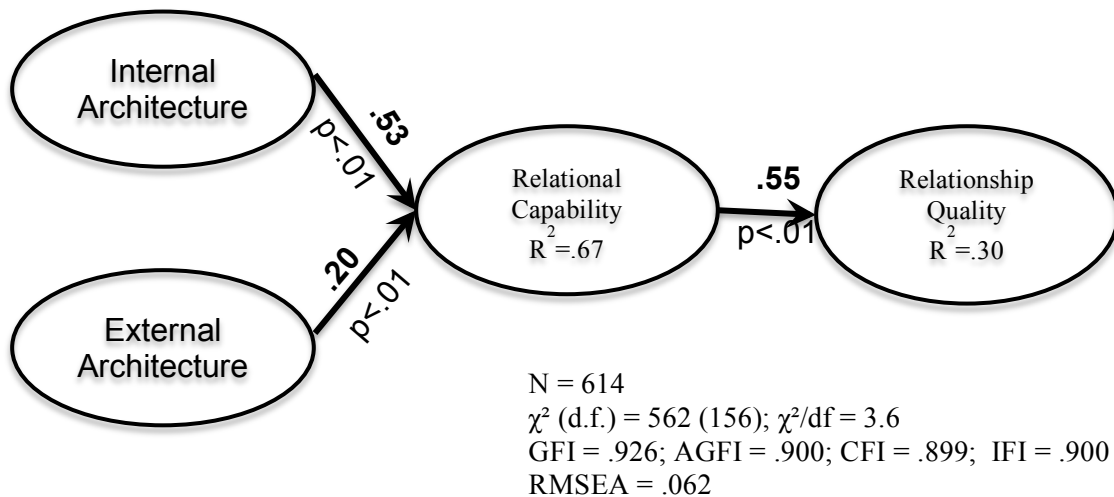**REFERENCES & TABLES available from corresponding author**

Figure 3: Estimated Model of Relational Architecture, Relational Capability, and Relationship Quality