The nature, role and impact of connected relations:
A Comparison of European and Chinese Suppliers’ Perspectives

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Abstract

Firms are embedded in networks of interdependent relations, yet the nature of these relationship networks receives little study. We review theories of the impact of network relations and present empirical evidence on their nature and impact, drawing on a database of international business relations including Swedish, German and Chinese firms. Among the questions we address are: who initiates network relations; which ones are important, and why; and the nature of the affects of important relationships. While there are some differences between countries, contrary to conventional wisdom, we do not find evidence that Chinese firms differ from European firms on these questions.

Keywords: International Business Relationships, connected relations, relationship functions, structural equation model, cross-cultural, China, Sweden, Germany
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Introduction

Developing and managing business relations with foreign counterparts such as import agents, distributors, industrial customers, alliance and joint venture partners is an important determinant of international business. Business relationships are increasingly being seen as key assets of a firm through which resources are accessed and co-developed and competitive advantage is created and sustained (e.g. Achrol, 1997; Dyer and Singh, 1998; Hakansson and Snehota, 1995). International business relations pose special problems because they involve interaction between firms and people born of different cultural contexts and histories (Pornpitakpan, 1999). Substantial research has been undertaken in marketing and other disciplines concerning the nature and performance of relations between firms in various domestic and international contexts. (e.g. Ahmed, et al., 1999; Dyer and Chu, 2000; Lin and Germain, 1998; Luo, 2001, Wiley, Wilkinson, and Young, 2005).

Business relations do not occur in isolation. They are connected to other relations in various ways, forming business networks or marketing channel systems stretching across industry and international boundaries (Achrol and Kotler, 1999; Anderson et al., 1994; Granovetter, 1985; Rooks et al., 2000). Figure 1 depicts examples of various types of relations that may be connected to a focal supplier-customer relation. Just as a firm’s performance depends on the behaviour and performance of other firms and organizations, so the behaviour and performance in a given supplier/customer relation is affected by both the supplier’s and the customer’s relations with other entities. We refer to these relations as connected relations.

Figure 1 About Here

The nature and effects of connected relations on focal relations has received little research attention. Most research adopts a focus in which relationship dimensions and their impact on focal relations are described in terms of the characteristics of the organisations involved, and other relationship properties, such as power-dependence and conflict, trust-commitment and cooperative-competitive focused models (e.g. Anderson and Narus, 1990; Morgan and Hunt, 1994; Young and Wilkinson, 1987). Other relations enter these models as comparisons or benchmarks and are usually...
referred to as CLalt.

In this paper we examine the nature, role and impact of connected relations using a cross-national study of Swedish, German and Chinese international supplier-customer relations. The paper is organised as follows. We first provide a conceptual background by reviewing previous conceptualisations of the nature and impacts of connected relations on focal relations. Second, we describe the methodology used to obtain the samples of international supplier-customer relations and the measures used. Third, supplier perceptions of the impact of connected relations on a focal relation are compared for Swedish, German and Chinese business relations.

Conceptual Background

Constructive vs. Deleterious Effects

Anderson, et al. (1994) distinguish between the positive and negative effects of connected relations on the decisions and activities affecting a focal relationship. These effects are conceptualised in terms of the inter-connections among resources, activities and actors between relations and are summarised in terms of various types of constructive and deleterious impacts on a firm’s network identity. Network identity is defined as the firm’s “own attractiveness (or repulsiveness) as an exchange partner with its network context” (p.4).

Constructive effects on network identity refer to a firm’s perceptions “that engaging in a relation episode with its partner firm has, in addition to effects on outcomes within the relation, a strengthening, supportive, or otherwise advantageous effect on its network identity” (p. 7). This stems from (a) resource transferability, the ability to use the resources, knowledge and skills from other relations in the focal relation and to develop and combine resources from other relations; (b) activity complementarity, the positive effects of activities in one relation on another in terms of reducing costs, as when scale in one customer relation reduces costs to supply other customers and in terms of enhancing benefits, or when activities in supplier relations affect the quality of products and services offered to customers; and (c) actor-relationship generalizability, the broader effects of cooperation with particular firms, such as in terms of signalling to others a willingness and capability to cooperate. Deleterious effects on network identity stem from (a) resource particularity, which includes resources being prevented from use in one relation because they are tied up in another or from the adaptation of resources to one relation having adverse effects on another relation; (b) activity irreconcilability, the
difficulty of integrating the activities of different relations with each other because of the way they are
tailored to different relations; and (c) actor-relationship incompatibility, the negative reputation effects
that may stem from dealing with particular firms.

A further source of constructive and deleterious effects is suggested by Welch and Wilkinson
(2005) in terms of the interaction of ideas or schemas among actors in connected relations, which is
conceptually distinguished from the actors, activities and resource dimensions of relations used by
Anderson, et al., (1994) in developing their theoretical framework. Schemas may be characterised in
terms of systems of ideas underlying managers’ actions and responses, the prisms through which they
view themselves and their environment (Podolny, 2001). They include key assumptions about their
own and others’ resources, skills and competences, as well as their vision, orientations, plans and
strategies. They may be viewed as types management memes (Blackmore and Dawkins, 2000) that
adapt and “jump” from mind to mind as a result of communication, learning and copying within and
across business relations. Constructive and deleterious effects arise because of the way schemas
developed in connected relations have positive or negative effects in a focal relation; the way they
enhance or constrain the vision and understanding of those involved in the focal relation about their
own and others’ network identities.

**Relationship Functions**

The constructive effects of connections between relations have been interpreted by other
researchers in terms of the indirect or network functions of relations for relationship participants
(Hakansson and Johanson, 1993; Walter et. al., 2001; Walter et. al., 2003). Relationship functions
create value for the participants and hence contribute to relationship performance. A distinction is
made between the direct, or primary, functions of relations and indirect or network functions. Direct
functions refer to the immediate value co-created in the focal relation. Indirect functions refer to the
value that comes from the way a focal relation is connected to other relations and acts as a bridge or
conduit through which access is gained to others and to information and insight. Indirect functions
reflect the constructive effects of connected relations as discussed above. The deleterious effects of
connected relations may be interpreted in terms of various types of indirect of network dysfunctions or
burdens of relations including misinterpretation, conflict and distrust (Hakansson and Snehota, 1998;
Welch and Wilkinson, 2005).

Different classifications of relationship functions have been proposed from the supplier and
customer perspective (Walter, et al., 2001; Walter, et al., 2003). In the research reported here, the focus is on the supplier’s perspective. Walter, et al. (2001) identify three direct functions of a supplier’s customer relations - profit, volume and safeguard functions and four indirect or network functions, which depend on the interconnections among activities, resources, actors and schemas across relations:

1. An innovation function, which comes from working with customers that are at the leading edge in terms of technology and whose expertise is valued (von Hippell, 1986). These functions stem from resource transferability and schemas enhancements.

2. A market function, which refers to the referral and reputation effects of working with large, prestigious or demanding customers and which stem from activity complementarities, actor relationship generalizability and schema enhancements.

3. A scout function through which firms gain access to valuable market information from the way customers have access to different sources of information, such as about a supplier’s competitors and indirect customers e.g. Martin, et al. (1998). This stems from resource transfers and schema enhancements.

4. An access function through which introductions and contacts with important market actors is gained, such as government bodies or complementary suppliers e.g. Elg (2000). This function arises as a result of resource transferability, where relationships are a type of resource and actor-relationship generalizability.

The general framework linking the constructive and deleterious effects of connected relations to the functions and dysfunctions of relations and to relationship performance is summarised in Figure 2.

Figure 2 about here

The Samples

The empirical results we report here are based on the IMP2 database, a pan European collaborative study of inter-firm relations in business markets between and within different countries that was later extended to Asia. The results reported here describe supplier’s perceptions of relationships with “important” focal customers. Only Sweden and Germany have substantial numbers of respondents in Europe. We limit our analysis to these countries. The Chinese study was conducted separately from the European studies, using somewhat different sampling methodologies.
Swedish and German Samples

Locally based researchers conducted interviews with industrial firms in a number of European countries about the characteristics and development of important relations with counterparts in other countries. The part of the database used in this study concerns data gathered on dyadic business relationships of supplier firms in Germany and Sweden. The supplier companies in the study belong to different industries, ranging from raw materials to equipment.

Interviews were conducted with marketing executives, who were asked to select one of the firm’s most important customers in a specific country so that an even distribution of relationships across the customer countries could be achieved. The sample of relationships investigated is fairly evenly distributed over seven customer countries (France 23.5%, the United Kingdom 16.2%, Germany 14.0%, Sweden 14.0%, Italy 13.2%, the USA 10.3%, and Japan 6.6%). The respondents were asked to select a customer relationship they were responsible for and of which they had personal experience. Thus, the respondents selected play a key role in the firm’s enactment of the relationship. Questions about the focal customer relationship were answered following a standardized structured questionnaire.

China Sample

The IMP2 questionnaire was translated into Chinese and back translated by independent native bilingual Chinese speakers. For details of this see Dawson et al. (1997). The sample of Chinese suppliers with international business customers was developed in cooperation with the Chinese Bureau of Statistics. The sampling frame was based on the database of the “Third Industrial Census” and the database of the “First National Basic Business Census” developed by the Chinese Bureau of Statistics. For purpose of sampling, the frame was stratified into Northern (Beijing as the centre), Eastern (Shanghai as the centre), Southern (Guangdong as the centre) and Middle western (Sichuan and Chongqing as the representatives) regions and a target sample size of 100 was set based on interview costs.

Approximately 200 suppliers in each region were selected for the initial sample, including Sino-Foreign joint ventures, large-sized industrial enterprises, and those involved in import and export. The specific respondent was determined by telephone pre-interview, to establish they satisfied relevant conditions and if they were willing to cooperate in the study. Officers from the Chinese Bureau of Statistics conducted personal interviews using the full IMP2 questionnaire. Interviews
continued until the target sample size of 100 was achieved.

The resulting sample comprised 50% state owned firms, 35% joint ventures, 4% Chinese owned and 3% foreign owned. Eight percent did not specify their ownership structure. The sample of relationship counterparts was spread over 32 different countries, the most numerous being USA 14%, Japan 10% and Hong Kong 11%. Forty-nine percent of customers were from the Asian region, 37% from Western countries (including 19% from Europe), 6% were from South America and 8% were not specified.

The two samples vary in their mix of types of relations because Europe and China are at different stages of development of international trade links. Thus it is not possible to match industries between the two samples. The average duration of the supplier-customer relations in the European sample is much longer (mean = 22 years since first delivery) compared to the Chinese sample (mean = 5 years).

The Questions Asked

Four sets of questions that relate to customer’s connected relationships were included in the research instrument. One set of questions asks about who initiates the focal relationship: the respondent’s own company; the intermediary; customer’s company; or other third parties in the respondent’s own country; the supplier’s own country; or third parties in any other country. A second set of questions asks for reasons the focal relationship is thought to be important to the supplier and to the customer. The third set of questions asks about the extent of influence on the focal relationship of customer’s and the supplier’s other relationships. The fourth set of questions asks about the ways in which other relationships affect firms.

Who initiates a focal relationship?

Relevant questions in IMP2 are shown in Table 1. One set of questions ask; “How important were the following different units within your own company, the intermediary, or the customer’s company in initiating the relationship? A second question asks; “How important were third parties for initiating the relationship, e.g., other customers or suppliers to your own company or to the customer, government agencies, consultants, law firms, banks, etc.? Response alternatives are: 1= no importance, 2 = minor importance, 3 = some importance, 4 = rather strong importance, 5 = very strong importance.

Table 1 About Here
Why are you important to the customer? Why is the customer important to you?

Tables 2 and 3 list questions asking why the focal relationship is thought to be important. Table 2 lists fifteen questions concerning respects that the customer may be important to the supplier. The alternatives are organised according to the Walter et al. (2001) typology discussed above (direct vs. indirect effects, scouting, access, etc.). Table 3 lists eleven questions concerning respects that the supplier is thought to be important to the customer. The items also are organised using the same typology. Response alternatives are: 1 = strongly disagree, 2 = partly disagree, 3 = uncertain, 4 = partly agree, and 5 = strongly agree.

Table 2 and 3 About Here

Extent of connected relationship influence.

Two sets of questions ask about the extent the focal relationship is influenced by a) other relationships of the customer and b) other relationships of the supplier. The questions and relationships are shown in Table 4. Response alternatives are 1 = not at all, 2 = only a little, 3 = to some extent, 4 = rather much, 5 = very much.

Table 4 About Here

Nature of the effect of the Other Relationships

Lastly, for each type of connected relationship rated as having some impact on the focal relation, i.e. rated as 3, 4 or 5; respondents were asked to indicate in what way the relationship is affected.. Response alternatives are the same as for the Extent of Influence questions: 1 = not at all, 2 = only a little, 3 = to some extent, 4 = rather much, 5 = very much. The question and response alternatives are shown in Table 5.

Table 5 About Here

Results

Before connected relations may affect a focal relationship, the focal relationship must first be established. Since the types of subsequent connected relationships may be influenced by how a focal relationship is established, we first look at who initiates focal relationships. We then turn to reasons the focal relationship is perceived to be important: first form the perspective of the supplier and then
the supplier’s perception of why they are perceived to be important to their customer. We then look at
the effects of other connected relationships on the focal relationship.\textsuperscript{1}

**Who initiates the relationship? (Table 1)**

The highest rated sources for initiating relationships are Units of the Customer (3.80), their
Own Units (3.80), and Intermediaries (3.40). Respondents in the respective countries do not differ in
the importance they attach to these influence, nor do they differ in their ratings for Other Customer
Groups (2.3). (The values in parentheses are mean values across countries). Chinese respondents
rate Customer Group Headquarters, Own Group Headquarters, and Other Units of Own Group higher
than do Swedish and German respondents.

None of the countries rate third parties (such as consultants) as important initiators of the focal
relationship. That said, Chinese respondents gave greater importance than Swedes or Germans to
“third parties in their own country” and “any other country.” Swedes and Chinese gave greater
importance to “third parties in supplier countries” than did Germans.

**Reasons for Importance (Tables 2 and 3)**

**Reasons Customer Important to Supplier.** Table 2 shows the mean ratings of reasons the focal
relationship is important to the respondent firm. The most important reasons are direct ones. The
mean value for the set of three questions is 3.50. It perhaps is not surprising that the most important
reason is the amount the customer buys from the firm, with the impact on the firm’s 5-year profitability
a close second. Importance for the range bought is third in importance. Chinese rate the amount
bought and range bought significantly higher than the European respondents. Swedish respondents
rate impact on 5-year profitability highest.

The scout function has the second highest average rating across countries and the highest ratings
of the indirect functions. Swedish and Chinese respondents rate the information obtained by the
customer higher than the customer’s role in anticipating future trends. Germans rate it as being equal
in importance, albeit the mean of the German ratings are in the “disagree” category. There is not a
difference between countries in the importance attached to anticipation of future trends.

\textsuperscript{1} In what follows, the significance value items is the value that sets the overall error rate for a table
equal to 0.05. For example, there are 10 items in Table 1 and a one-way ANOVA of the mean
response for each item across countries is conducted for each item. Setting a p-value of 0.005 for
each of the 10 test sets sets the overall rate for the table at 0.05, assuming the tests are independent. If
the tests are not independent, the error rate is conservative, i.e., the overall error rate is less than
0.05. The value is found by solving the formula $0.05 = 1-(1-p.e.r)^{10}$ for $p.e.r$, where $p.e.r$ = the protected
error rate and $nt =$ the number of tests.
The *market function* is close to the scout function in importance across countries. The two most important functions are the customer enhancing the image of the firm in the customer’s country and the customer acting as a bridgehead for expansion to the customer’s country. Swedes, Chinese, and Germans to not differ in the ratings they attach to these functions. Lower ratings are attached to the customer enhancing the image of the firm in other countries and acting as a bridgehead for expansion to other countries. Swedes and Chinese give significantly higher ratings to these functions than do Germans (whose average ratings are in the “strongly disagree” range for these two items).

Fourth in importance across countries is the customer’s role in *innovation*. Responses do differ across countries on this function. Swedes give highest ratings to the customer being a source of technical development. Chinese give highest ratings to the customer being a source of product technology ideas. Germans do not rate innovation, although they attach the greatest importance to the customer as a source of production technology.

The least important function across countries is the access function. The only function approaching importance in any country is “facilitating other operations.” This is the highest rated the access functions in all three countries. The Chinese attach the greatest importance to this function, with the Germans second.

**Reasons Supplier Important to Customer.** Table 3 shows the mean ratings of reasons the focal relationship is perceived by the supplier to be important to the customer. As was the case for the customer’s importance to the supplier, the most important reasons are direct ones. The mean value for the set of three questions is 3.60. Consistent with previous results, the highest rated reason concerns supply/demand issues, i.e., in the case of customers, the amount supplied. Countries do not differ in their ratings of this item. Ratings of the impact on customer’s 5-year profitability are equal to supply issues across countries. However, Germans rate their impact on customer profitability significantly lower than Swedes or Chinese. Swedes rate it highest. Acting as a safeguard parallel supplier is rated third in all three countries.

The impact on customer *innovation* is the second highest rated function across countries. The supplier as a *source of technological development* is highest rated of these functions. Being a *source of product technology* is second. Being a *source of production technology* is rated third, with Germans rating this function significantly lower than Swedes or Chinese.

Market functions are rated third in importance. The relationship enhancing the customer’s image
in his country is the most important of the set overall. Enhancing the image of the customer in other countries is rated second. Acting as a bridgehead for expansion in the supplier’s country or another country are rated least important, although Chinese rate these functions significantly higher than do Swedes or Germans.

The lowest rated function is the supplier acting as a conduit to other organisations. Here, however, Chinese rate this role as being significantly more important than do Swedes or Germans.

**Extent to Which Other Relationships Affect Focal Relationship. (Table 4)**

Table 4, present results for the extent to which the customer’s connected relationships affect the focal relationship (Panel A) and the extent to which the supplier’s connected relationships affect the focal relationship (Panel B).

**Customer’s Relationships.** The relationship having the highest rated impact on the focal relationship is that of competing suppliers. Swedes rate this function highest, with Chinese second and Germans third. The ratings of each country differ significantly from one another. The average ratings of the remaining 10 relationship categories are in the “not at all” or “only a little” range.

**Supplier’s Relationships.** Suppliers do not rate any of their own other relationships as having an important impact on the focal customer relationship, i.e., average ratings are all in the “not at all” or “only a little” range. The highest mean rating in 2.24 for Swedes’ ratings of the impact of their own other customers on the focal customer relationship. The Swedes’ ratings for this relationship are significantly higher than Germans or Chinese. This is the only mean rating falling out of the “not at all” category.

**Nature of the Effects of Other Relationships (Table 5)**

Table 5 shows the top box score percentage of types of impacts of connected relations. Analyzing data from the Effect questions is problematic because the number of responses differs from firm to firm depending on which connected relations were rated as having some impact. For example, the only effect that receives more than 50% top-box scores in all three countries is “It affects the volume of our business with the customer.” We restrict further analysis to the “volume” affect. Table 6 provides the results of a multivariate analysis of variance that simultaneously tests the effect of country, other relationship, intensity, and their interactions on ratings of the degree to which “volume” is affected.\(^2\)

\(^2\) Since the results for this study are for a survey (not an experiment), the effects estimated are not orthogonal. Notably, the estimates for the main effects and interactions are non-orthogonal. For this reason, we test hypotheses in two steps. First we test hypothesis that interactions are
Table 6, Panel A, provides results for interactions. Given the non-significance of the two and three-way interactions, we accept the null hypothesis that the interactions among the variables are insignificant. We re-estimate the model without interactions. Table 6, Panel B, provides tests for the significance of the main effects. The main effects for all factors are significant at beyond the 0.05-level. We conclude that the main effects of “Other Relationships” questions on the “volume” affect questions are significant, i.e., the perceived effect on volume differs across Other Relationships. We also conclude that the main effect of country of respondent is significant and that the main effects of Intensity of Response (i.e. use of top boxes) on the “Other Relationship” questions are significant. In other words the mean responses to the “volume” question differs between countries and depends on “how important” the “Other Relationships” is perceived to be.

Figure 4 illustrates the main effect impacts of Respondent Country on the mean responses to the “It affects the volume of our business with the customer.” The “Other Relationships” having the greatest effect are Competing products, Other units of customer firm, Customer of customer, Bank and Complementary products. The “Other Relationships” questions with the lowest scores are Law firms, Others, Other International Organizations, and Consultants. Germany generally responds with slightly higher scores and China responds with slightly lower scores. The implication of the two-way interactions being insignificant is that the pattern of Germany responding higher and China responding lower generalizes across “Other Organization” questions. The significant main effect for intensity of response indicates that the mean expected response to the “Volume” question is lower if the respondent made a lower response to the “Other Relationship” question. Conversely, the higher the response to the “Other Relationship” question, the higher the response to the “Affect” Question.

Discussion and Managerial Implications

In this paper, we take an initial step and look at the initiators’ of focal relationships and types of influences connected relationships have on focal relationships. Perhaps the most encouraging finding of our study is the broad consistency of results across countries, especially ones thought to be as insignificant. Given that the null hypothesis is accepted, we re-estimate and test the hypotheses that the main effects are significant using a main-effects only model.
distinct as China and European countries. Financial considerations come foremost, but the indirect functions of information supply and technological support are also relevant.

The results indicate that the main sources for initiating relationships are other business units of the customer, other suppliers, and intermediaries. The findings do not differ greatly by country. However, Chinese suppliers, compared to German and Swedish, rate customer group headquarters, their own group headquarters, and other units of their own firm as more important. This may reflect the historic centralization of Chinese industry, notably firm’s history as being part of a command economy, and may be changing over time. An interesting follow-up would be to see who initiates relationships with Chinese firms in subsequent decades. For managers seeking to establish a supplier relationship with Chinese firms, or wishing to enhance their existing supplier relationship, an implication is that they will want to conduct the relationship at the highest feasible level and they should recognize that components of the Chinese firm other than the one they immediately deal with may have important influence on the relationship.

Direct functions received the highest ratings for both the importance of customers to suppliers and of suppliers to customers. Volume bought is the dominant reason for importance. Impact on profitability is second. Range bought is third. Generally, Chinese respondents attach greatest importance to supply – volume and range – issues. European respondents attach highest rating to impact on profitability. The difference in emphasis may reflect a combination of Chinese firms’ relative recent entry into capitalist systems and a strategy to emphasize volume growth over profitability. European firms, on the other hand, are generally publicly held corporations subject to profit expectations of shareholders. Financial considerations also dominate the functions suppliers perceive they offer their customers. Consistent with these findings is the rating of customers’ relations with competing suppliers as having a significant effect on financial performance. Two other types of connected relations also impact on the focal one, i.e., a supplier’s relations with other units of the customer’s firm and customer’s relations with their own customer. These results suggest that firms should not become so focused on their competition that they overlook the effects of these other types of connected relations. In China, the impact of connected relations with banks and financial institutions and government agents are also more likely to be rated higher, reflecting the impact of China’s stage of development and its more centrally directed economic system.

Second to financial considerations, suppliers attach importance to customers as sources of
information. This implies that providing suppliers with relevant information may enhance relationships over and above that expected from the financial aspects of a relationship. The supplier being a source of information to the customer also is considered to be the second most important reason that the supplier is believed to be important to the customer. However, in the case of the customer supplying information to the supplier, it is information about the market that is valued; while in the case of the supplier supplying information to the customer, it is information about technological and product innovations that is valued. Next in importance are Indirect Market Functions. Though generally not rated as important, the supplier’s impact on the customer’s image is generally rated higher than the supplier acting as a bridgehead to gain access to markets. That said, Chinese suppliers rate their importance as a bridgehead higher than do Swedish or German suppliers, reflecting the potential role of Chinese suppliers linking foreign firms to Chinese markets and the potential link between input and output connections in the internationalisation process (Welch and Lousitarinen 1993).

Access functions are not considered to have important impacts on the focal relationship in any of the countries. German suppliers are more likely to nominate the customer’s financial and legal relations to impact the focal relation than Swedes or Chinese. They also are more likely to nominate their own financial and legal relations as impacting the focal relationship. This may say something about the nature of the products sold by German firms or the organisation of German industry. For example, the German’s relatively low ratings of customer and competitor factors and higher ratings of financial/legal factors compared to Swedes and Chinese would be consistent with representative German products being more differentiated or being protected by higher barriers to entry (such as patents, high financial costs, technical expertise, etc.) than Swedish and Chinese equivalents.

The impacts of connected relationships’ indirect functions on the focal relationship are not rated as highly as are the immediate impact of supplier/customer relations. Consistent with the primacy of direct functions found above, however, connected relationships that impact primary functions are rated as having higher impact than connected relationships that are likely to primarily have their impact on indirect functions.

In general our results do not lend support to arguments that the role and impact of connected relations in Chinese international business relations function in different ways to Western business relations, at least in terms of the constructs included in this study. Although additional supporting research is needed, this encouraging result implies that strategies – if not specific tactics – that
suppliers use to initiate and maintain relationships may generalize across business contexts as diverse as Europe and China.
References


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Table 1
Initiator of Focal Relationships

<table>
<thead>
<tr>
<th>Initiator of Relationship</th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>Average</th>
<th>F</th>
<th>Sig.</th>
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<td>Own group headquarters</td>
<td>1.9</td>
<td>1.6</td>
<td>3.4</td>
<td>2.3</td>
<td>33.2</td>
<td>0.00 *</td>
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<td>Other units own group</td>
<td>1.8</td>
<td>1.9</td>
<td>2.6</td>
<td>2.1</td>
<td>10.7</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Cust. grp headquarters</td>
<td>2.5</td>
<td>2.7</td>
<td>3.5</td>
<td>2.9</td>
<td>8.5</td>
<td>0.00 *</td>
</tr>
<tr>
<td>Intermediary</td>
<td>3.7</td>
<td>3.6</td>
<td>2.9</td>
<td>3.4</td>
<td>3.7</td>
<td>0.03</td>
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<td>Own unit</td>
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<td>3.8</td>
<td>4.0</td>
<td>3.8</td>
<td>1.2</td>
<td>0.29</td>
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<td>Other customer groups</td>
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<td>2.4</td>
<td>2.2</td>
<td>2.3</td>
<td>0.3</td>
<td>0.76</td>
</tr>
<tr>
<td>Unit of customer</td>
<td>3.8</td>
<td>3.8</td>
<td>3.9</td>
<td>3.8</td>
<td>0.0</td>
<td>0.98</td>
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<table>
<thead>
<tr>
<th>Initiator of Relationship</th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>Average</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3d party in own country</td>
<td>1.6</td>
<td>1.5</td>
<td>2.3</td>
<td>1.8</td>
<td>8.9</td>
<td>0.00 *</td>
</tr>
<tr>
<td>3d party in supplier country</td>
<td>2.1</td>
<td>1.3</td>
<td>2.0</td>
<td>1.8</td>
<td>7.3</td>
<td>0.00 *</td>
</tr>
<tr>
<td>3d party in any other country</td>
<td>1.6</td>
<td>1.1</td>
<td>1.8</td>
<td>1.5</td>
<td>6.6</td>
<td>0.00 *</td>
</tr>
</tbody>
</table>

Note: Response alternatives are: 1 = no importance, 2 = minor importance, 3 = some importance, 4 = rather strong importance, 5 = very strong importance. Significance evaluated at p = .005, which gives an aggregate error rate over the 15 hypotheses test in the table of 0.05.
Table 2

They Important to Us

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>Average across countries</th>
<th>Average for set</th>
<th>F</th>
<th>p</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount buys</td>
<td>3.92</td>
<td>3.12</td>
<td>4.34</td>
<td>3.96</td>
<td>3.50</td>
<td>18.50</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Profitability of own company 5yrs</td>
<td>4.06</td>
<td>3.24</td>
<td>3.76</td>
<td>3.78</td>
<td>19.91</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Imp - range buys</td>
<td>2.35</td>
<td>2.21</td>
<td>3.33</td>
<td>2.75</td>
<td>19.77</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Indirect Scout Function</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship with C instrumental in obtain info</td>
<td>3.41</td>
<td>2.42</td>
<td>3.60</td>
<td>3.35</td>
<td>3.19</td>
<td>11.94</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Anticipates future market trends</td>
<td>3.14</td>
<td>2.50</td>
<td>3.17</td>
<td>3.04</td>
<td>5.06</td>
<td>0.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Indirect - Market Function</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhances image in that country</td>
<td>3.69</td>
<td>3.17</td>
<td>3.37</td>
<td>3.45</td>
<td>3.06</td>
<td>2.85</td>
<td>0.060</td>
<td></td>
</tr>
<tr>
<td>Bridgehead expansion cust country</td>
<td>3.13</td>
<td>2.55</td>
<td>3.35</td>
<td>3.12</td>
<td>5.81</td>
<td>0.003</td>
<td></td>
<td></td>
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<tr>
<td>Enhances image other country</td>
<td>3.20</td>
<td>2.00</td>
<td>3.12</td>
<td>2.94</td>
<td>14.63</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Bridgehead expansion other country</td>
<td>2.81</td>
<td>1.45</td>
<td>3.15</td>
<td>2.71</td>
<td>26.79</td>
<td>0.000</td>
<td>*</td>
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</tr>
<tr>
<td><strong>Indirect - Innovation Function</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical development</td>
<td>3.09</td>
<td>2.14</td>
<td>2.57</td>
<td>2.69</td>
<td>2.54</td>
<td>7.81</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>Product tech. ideas</td>
<td>2.88</td>
<td>1.86</td>
<td>2.70</td>
<td>2.61</td>
<td>9.32</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Production tech. ideas</td>
<td>1.94</td>
<td>2.14</td>
<td>2.68</td>
<td>2.30</td>
<td>9.95</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Indirect - Access Function</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilitate other operations</td>
<td>2.29</td>
<td>2.40</td>
<td>3.58</td>
<td>2.88</td>
<td>2.26</td>
<td>26.28</td>
<td>0.000</td>
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</tr>
<tr>
<td>Access other organisations (local banks, etc.)</td>
<td>1.81</td>
<td>1.86</td>
<td>2.27</td>
<td>2.02</td>
<td>4.30</td>
<td>0.015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access organisations other countries</td>
<td>1.79</td>
<td>1.40</td>
<td>2.17</td>
<td>1.89</td>
<td>8.21</td>
<td>0.000</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Note: Response alternatives are: 1 = strongly disagree, 2 = partly disagree, 3 = uncertain, 4 = partly agree, and 5 = strongly agree. Asterisks indicate statistical significance. Significance evaluated at p = .0034, which gives an aggregate error rate over the 15 hypotheses test in the table of 0.05.
Table 3
We Important to Them

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>Average across countries</th>
<th>Average for set</th>
<th>F</th>
<th>p</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major supplier</td>
<td>4.23</td>
<td>3.64</td>
<td>3.81</td>
<td>3.94</td>
<td>3.60</td>
<td>4.5</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td>Profitability of customer company 5 yrs</td>
<td>4.07</td>
<td>3.56</td>
<td>4.02</td>
<td>3.93</td>
<td>3.60</td>
<td>9.8</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Safeguard, parallel supplier</td>
<td>2.93</td>
<td>2.21</td>
<td>3.24</td>
<td>2.93</td>
<td>3.60</td>
<td>8.3</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Indirect - Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnet tech development</td>
<td>3.26</td>
<td>2.74</td>
<td>2.77</td>
<td>2.95</td>
<td>2.79</td>
<td>3.7</td>
<td>0.026</td>
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</tr>
<tr>
<td>Source product technology</td>
<td>3.15</td>
<td>2.45</td>
<td>2.72</td>
<td>2.83</td>
<td>2.79</td>
<td>4.5</td>
<td>0.012</td>
<td></td>
</tr>
<tr>
<td>Source production technology</td>
<td>2.66</td>
<td>1.90</td>
<td>2.78</td>
<td>2.57</td>
<td>2.79</td>
<td>7.2</td>
<td>0.001</td>
<td>*</td>
</tr>
<tr>
<td>Indirect - Market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance customer image his country</td>
<td>2.51</td>
<td>2.83</td>
<td>2.68</td>
<td>2.64</td>
<td>2.29</td>
<td>1.1</td>
<td>0.339</td>
<td></td>
</tr>
<tr>
<td>Enhance customer image other country</td>
<td>2.36</td>
<td>1.98</td>
<td>2.41</td>
<td>2.31</td>
<td>2.29</td>
<td>2.3</td>
<td>0.106</td>
<td></td>
</tr>
<tr>
<td>Bridgehead expansion other country</td>
<td>1.99</td>
<td>1.33</td>
<td>2.59</td>
<td>2.13</td>
<td>2.29</td>
<td>20.8</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Bridgehead expansion our country</td>
<td>1.65</td>
<td>1.19</td>
<td>2.81</td>
<td>2.07</td>
<td>2.29</td>
<td>46.9</td>
<td>0.000</td>
<td>*</td>
</tr>
<tr>
<td>Indirect - Access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduit to other organisations</td>
<td>1.51</td>
<td>1.21</td>
<td>2.44</td>
<td>1.86</td>
<td>1.86</td>
<td>34.1</td>
<td>0.000</td>
<td>*</td>
</tr>
</tbody>
</table>

Note: Response alternatives are: 1 = strongly disagree, 2 = partly disagree, 3 = uncertain, 4 = partly agree, and 5 = strongly agree. Asterisks indicate statistical significance. Significance tested and p = .0047, which gives an aggregate error rate over the 11 hypotheses tested in the table of 0.05.
### Table 4
Extent of Affect of Other Relationships

#### (A) Customer Relationships

<table>
<thead>
<tr>
<th>Customer’s Other Relationships</th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>F</th>
<th>p</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent is your business with this specific customer affected by his own relationships with some of the following.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Any customer of the customer’s?</td>
<td>2.34</td>
<td>2.32</td>
<td>2.32</td>
<td>0.0</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>b. Any supplier of products competing with yours?</td>
<td>3.49</td>
<td>2.55</td>
<td>3.19</td>
<td>8.0</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>c. Any supplier of products complementary to yours?</td>
<td>2.40</td>
<td>2.15</td>
<td>2.43</td>
<td>0.9</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>d. Any other unit of customer’s firm?</td>
<td>2.08</td>
<td>1.50</td>
<td>1.81</td>
<td>3.3</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>e. Any other unit of your own firm (excl. intermediary)?</td>
<td>1.62</td>
<td>1.28</td>
<td>1.63</td>
<td>2.1</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>f. Any bank or other financial organization?</td>
<td>1.37</td>
<td>1.14</td>
<td>1.75</td>
<td>5.8</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>g. Any law firm or other legal organization?</td>
<td>1.04</td>
<td>1.00</td>
<td>1.46</td>
<td>13.7</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>h. Any consultant or research institute?</td>
<td>1.48</td>
<td>1.20</td>
<td>1.54</td>
<td>1.6</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>j. Any other relevant organization?</td>
<td>1.64</td>
<td>1.66</td>
<td>1.54</td>
<td>0.2</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>k. Any international organization?</td>
<td>1.40</td>
<td>1.41</td>
<td>1.29</td>
<td>0.4</td>
<td>0.64</td>
<td></td>
</tr>
</tbody>
</table>

Note: Response alternatives are 1 = not at all, 2 = only a little, 3 = to some extent, 4 = rather much, 5 = very much. Asterisks indicate statistical significance. Significance tested and p = .0047, which gives an aggregate error rate over the 11 hypotheses tested in the table of 0.05.

#### (B) Supplier Relationships

<table>
<thead>
<tr>
<th>Supplier’s Other Relationships</th>
<th>Sweden</th>
<th>Germany</th>
<th>China</th>
<th>F</th>
<th>p</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent is your business with this specific customer affected by his own relationships with some of the following.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Any of your own other customers?</td>
<td>2.24</td>
<td>1.52</td>
<td>1.61</td>
<td>10.9</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>b. Any of your own suppliers?</td>
<td>1.73</td>
<td>1.40</td>
<td>1.58</td>
<td>2.7</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>c. Any other unit of customer’s firm?</td>
<td>1.73</td>
<td>1.21</td>
<td>1.59</td>
<td>3.8</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>d. Any other unit of your own firm (excl. intermediary)?</td>
<td>1.68</td>
<td>1.22</td>
<td>1.71</td>
<td>3.6</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>e. Any bank or other financial organization?</td>
<td>1.17</td>
<td>1.05</td>
<td>1.49</td>
<td>9.2</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>f. Any law firm or other legal organization?</td>
<td>1.06</td>
<td>1.02</td>
<td>1.40</td>
<td>7.5</td>
<td>0.00</td>
<td>*</td>
</tr>
<tr>
<td>g. Any consultant or research institute?</td>
<td>1.41</td>
<td>1.19</td>
<td>1.42</td>
<td>1.5</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>h. Any trade union or other social body?</td>
<td>1.10</td>
<td>1.02</td>
<td>1.21</td>
<td>3.4</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>i. Any government agency?</td>
<td>1.31</td>
<td>1.10</td>
<td>1.54</td>
<td>4.0</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>j. Any international organization?</td>
<td>1.27</td>
<td>1.07</td>
<td>1.20</td>
<td>1.7</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>k. Any other relevant organization?</td>
<td>1.23</td>
<td>1.13</td>
<td>1.16</td>
<td>0.3</td>
<td>0.71</td>
<td></td>
</tr>
</tbody>
</table>

1=not at all, 2=only a little, 3=to some extent, 4=rather much, 5=very much

Note: Response alternatives are 1 = not at all, 2 = only a little, 3 = to some extent, 4 = rather much, 5 = very much. Asterisks indicate statistical significance. Significance tested and p = .0047, which gives an aggregate error rate over the 11 hypotheses tested in the table of 0.05.
### Table 5

**Summary Nature of Affect Questions Across Countries**

<table>
<thead>
<tr>
<th>Top Box (3, 4, or 5)</th>
<th>Respondent Country</th>
<th>Col %</th>
<th>Col %</th>
<th>Col %</th>
</tr>
</thead>
<tbody>
<tr>
<td>It affects the volume of our business with the customer</td>
<td>Sweden</td>
<td>82.5%</td>
<td>85.7%</td>
<td>78.0%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>56.0%</td>
<td>37.1%</td>
<td>62.1%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>64.4%</td>
<td>50.0%</td>
<td>71.9%</td>
</tr>
<tr>
<td>It affects the manner in which we deal with the customer</td>
<td>Sweden</td>
<td>49.0%</td>
<td>51.6%</td>
<td>27.8%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>32.5%</td>
<td>23.0%</td>
<td>28.6%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td>It affects the effort we put into the relationship</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
<tr>
<td>It has an impact on our product quality</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
<tr>
<td>It has an impact on our production technology</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
<tr>
<td>We and the customer exchange information on our</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
<tr>
<td>People from the customer's firm have met with people</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
<tr>
<td>The customer has a relationship of his own with</td>
<td>Sweden</td>
<td>57.2%</td>
<td>47.5%</td>
<td>38.3%</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>54.2%</td>
<td>40.0%</td>
<td>34.4%</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>52.8%</td>
<td>28.6%</td>
<td>41.2%</td>
</tr>
</tbody>
</table>
### Table 6

**Impact of Other Relationships on Nature of Affect**

**MANOVA Results**

<table>
<thead>
<tr>
<th>Effects</th>
<th>Pillai's Trace</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions</td>
<td>Value</td>
<td>F</td>
</tr>
<tr>
<td>Intensity of Response</td>
<td>0.54</td>
<td>0.95</td>
</tr>
<tr>
<td>by Other Relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity of Response</td>
<td>0.58</td>
<td>1.15</td>
</tr>
<tr>
<td>by Country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intensity of Response</td>
<td>0.18</td>
<td>1.39</td>
</tr>
<tr>
<td>by Country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three-way Interaction</td>
<td>0.44</td>
<td>1.07</td>
</tr>
</tbody>
</table>

| Main Effects                  |                |       |                 |      |      |
| Other Relationship            | 0.47           | 1.80  | 80              | 2296 | 0.00 |
| Country                       | 0.18           | 3.56  | 16              | 562  | 0.00 |
| Intensity of Response         | 0.11           | 2.07  | 16              | 562  | 0.01 |

Note: The MANOVA tests are simultaneous tests of the hypothesis that the indicated factor affects one or more of the affects listed in Table 5. Pillai’s trace provides a multivariate test of significance that can be transformed to approximate an F statistic.
Figure 1

Connected Relations for Firms in Dyadic Relations

(Source: Anderson et. al., 1994 p. 3)
Figure 2
Types of Relationship Connections and the Network Functions of Relations

Resource Transferabilities
Activity Complementarities
Actor-relationship Generalizabilities
Schema Enhancements

+

Anticipated Constructive Effects

Resource Incompatibilities
Activity Incompletenesses
Actor-relationship Incompatibilities
Schema Constraints

+ (Network Functions)

- (Network Dysfunctions)

+ (Dyadic Functions)

- (Dyadic Dysfunctions)

+ (Relationship Performance)
Figure 3

Affect Question

Volume of our business

Other Relationship Question

Estimated Marginal Means

Respondent Count

- Sweden
- Germany
- China