

# A Cross-Organizational Study of Working Relationships

R, Mohan Pisharodi and Ravi Parameswaran

## Abstract

Numerous articles in business literature celebrate the desirability of good working relationships among partners in B2B relationships. Research findings on the automobile industry have concluded that good working relationships result in lower costs, improvements in productivity, and the acquisition of competitive advantages. However, many of these findings are based on narrowly defined buyer-supplier relationships. The researchers first present their research on the impact of price pressure on supplier-customer (OEM) working relationships in the automobile industry. The OEMs in the data are then separated and data revealing the antecedents of their relationships with their suppliers are examined to study similarities and differences. The paper concludes with observations about its findings and provides suggestions for future research.

## Introduction

The intense competition among major manufacturers in the automobile industry has often resulted in the adoption of adversarial tactics by the leading automobile manufacturers (Bhote 1987, Kobe 2001, Sherefkin 2003). Other manufacturers, however, are adopting a different approach. Believing that more benefits result from cooperative, rather than adversarial supplier relations, these manufacturers, in an effort to achieve a "best in class" competitive position, have been developing keiretsu-like supplier relationships (Herbig and Shao 1993). Such efforts are worthwhile, for numerous benefits have been found to be associated with cooperative manufacturer-supplier relationships, including, cost savings for both manufacturer and supplier (Han, Wilson, and Dant 1993; Kalwani and Narayandas 1995; Sheth and Sharma 1997); shorter product development cycles, and improved supply chain management. Each of these benefits can contribute substantially to a manufacturer's competitive advantage.

Our initial research is focused on finding out whether adversarial tactics and good

cooperative working relationships can exist together. We sought to answer the above question through our model that describes the relationship between price pressure and working relationship. The empirical study that is presented is divided into two parts. In the first part, our model is tested on a sample of suppliers to OEMs in the automobile industry. In the second part, the data set is separated by OEM and the same relationships are studied and explored for similarities and differences.

## Development of the Research Model

Exchange between two parties without formal governance mechanisms, i.e., contracts, requires a relationship built on unseen governance mechanisms (Day 2000; Lambe, Wittmann, and Spekman 2001; Varadarajan and Cunningham 1995). Among the numerous elements that comprise such a successful functional relationship are four critical interrelated elements: communication, information sharing, commitment, and trust (Das and Teng 1998; Morgan and Hunt 1994; Smeltzer 1997; Wilson 1995; Zaheer, McEvily, and Perrone 1998).

*Communication and information sharing.* Communication is an essential element of co-

operative buyer-supplier relations (e.g., Cannon and Homburg 2001; Dwyer, Schurr, and Oh 1987; Jap and Ganesan 2000; Morgan and Hunt 1994) for it is through communication that each party can set the priorities and co-ordinate the activities necessary to achieve each other's objectives (Mohr, Fisher, and Nevin 1996). Communication is particularly important when there is a history of adversarial supplier relations (Cannon and Homburg 2001; Frazier and Antia 1995; Stuart and McCutcheon 1995), such as in the automotive industry, as communication can be used to reinforce the benefits to be realized by the parties and in doing so help to ameliorate any lingering bad feelings or uncertainty of purpose. Communication between manufacturers and their suppliers is also a critical element in providing the manufacturer a competitive advantage.

*Commitment.* While communication is essential to a co-operative manufacturer-supplier relationship, such relationships also require that neither party exploit the other (Morgan and Hunt 1994). Such a commitment to the relationship by each partner is necessary if the relationship is to work (Anderson and Narus 1990) and each party is to realize positive outcomes. Commitment has been defined as "an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it" (Morgan and Hunt 1994).

*Trust.* Co-operative relations alone will not bring about good manufacturer-supplier relations; trust also is a necessary component for successful relationships (Dwyer, Schurr, and Oh 1987; Gundlach, Achrol, and Mentzer 1995; Morgan and Hunt 1994). Trust, which social scientists describe as the most important of the key variables in relational exchange (Lambe, Wittmann, and Spekman 2001), is so important to relational exchange that Spekman

(1988) considers it to be the foundation of successful strategic partnerships, the most sophisticated of co-operative relationships. The importance of trust in business-to-business relations has been further substantiated by Wilson's (1995) observation that trust is an essential component of most business-to-business relationship models.

In this research, communication, commitment, and trust are modeled as antecedents to cooperative working relationships between OEMs and their suppliers.

## **Research Methodology**

### *Sampling Frame*

The subjects of this study are Tier 1 production goods suppliers to the six major North American automotive original equipment manufacturers (OEM): Chrysler, Ford, General Motors, Honda, Nissan, and Toyota. Tier 1 suppliers are direct suppliers to the Original Equipment Manufacturers (OEMs). The study involved a mail survey in which the highest-ranking individual(s) responsible for sales to each OEM at major North America Tier 1 production goods suppliers was mailed the survey package.

### *Instrument Development*

The survey instrument was developed in several stages that included an initial review of the literature to identify potential buyer-supplier relationships, modification of the measures for face validity; interviews with 20 supplier personnel, a reevaluation of the measures through a literature review, development of a questionnaire, a return to the earlier interviewees and an additional 15 purchasing personnel, further modification, a pre-test involving over 30 Tier 1 sales personnel, and final modification.

## Measurement Constructs

The selected measures fell under four general areas (Table 1):

**Table 1**  
**List of Indicators**

Var. No.	Label	Indicator Description
1	x1	OEM pressure on suppliers to reduce prices
2	y1	OEM communicates openly and honestly with suppliers
3	y2	OEM provides suppliers timely information
4	y3	OEM provides suppliers adequate information
5	y4	OEM treats suppliers as valued
6	y5	OEM honors its contractual commitment
7	y6	OEM lives up to its spirit of commitments
8	y7	OEM is fair in its dealings with suppliers
9	y8	Supplier trust of OEM
10	y9	Good overall OEM-supplier working relationship
11	y10	OEM price reduction asked of suppliers
12	y11	Supplier price reduction given to OEM

*Communication.* Mohr and Spekman (1994) found that successful partnerships tended to experience higher levels of communication quality; timely, accurate, adequate, and relevant information; and higher levels of information sharing than did less successful partnerships. The instrument included three measures of OEM communication: having open and honest communication with suppliers and providing timely information and adequate amounts of information to suppliers measured using a five-point itemized extent scale ranging from very little extent to very great extent.

*OEM Commitment and Trust.* Mohr and Spekman (1994) also found that, along with communication quality, coordination, commitment, and trust between partners are

important elements for success. The instrument used four measures of commitment that described important aspects of their working relationship with their OEM customers: suppliers being treated as valued suppliers by the OEMs, OEMs honoring their contractual commitments, OEMs living up to the spirit of their commitments, and OEMs being fair in their dealings with suppliers. Trust was measured using one indicator that measured supplier trust of OEMs. Working relationship was measured using one indicator.

*Price Reduction Demands.* Price pressure, a crucial variable in this research, was measured using a single indicator measured using a direct question (Table 1). Also included were two items, one to determine whether price reduction was demanded by the OEM and the

other to determine whether price reduction was given by the supplier during the year prior to the survey. These indicators were used to test criterion related validity.

### *Data Collection*

The survey package was mailed to the highest-ranking sales personnel responsible for the OEM account. This was done because it is typical in the Tier 1 suppliers being surveyed to have salespeople, at the director and vice president level, heading sales teams dedicated to servicing a single OEM, because of the amount of the annual sales to the OEM and the subsequent importance of the OEM to the supplier's overall annual revenue. It was anticipated that the recipient of the survey, if appropriate, would direct the individual(s) working with a specific OEM to answer the survey questions pertaining to the OEM with whom they worked. This request was expected to be carried out by the survey recipient as many times as necessary depending upon the manner in which the supplier was organized to meet the needs of its OEM customers. This expectation was justified as over 71% of the questionnaires in this survey were completed by cross-functional team consensus, a lead individual surveying and accumulating opinions of other team members and/or other functional areas, or a lead individual asking others to fill-in various sections of the questionnaire. The remaining questionnaires (29%) were completed by a single individual. In the latter case, the suppliers generally were smaller in annual sales, \$30 to \$75 million, provided a single product line to several of the OEMs, and/or included only one or two OEMs among its customers.

The survey was structured to ensure anonymity of the respondents and confidentiality of the completed questionnaire. The respondent did not need to identify their firm or themselves in the questionnaire and the implementation

procedures precluded associating completed questionnaires with specific respondents. These conditions were discussed in pre-survey and survey letters mailed to the supplier, and on the cover of the questionnaire. The intent of repeating these conditions was to instill a high degree of willingness on the part of the respondents to participate in the study, as well as to help ensure that they would be frank and candid in their response.

The survey packages also contained a sheet on which was listed the respondent's name and company, and a statement indicating the questionnaire had been completed and mailed under separate cover. The respondent was asked to fax us the sheet when they mailed the completed questionnaire. Each non-responding supplier was mailed a series of up to three reminder letters emphasizing the importance of their participation, resulting in a 44% response rate of useable completed questionnaires.

### *Survey Sample*

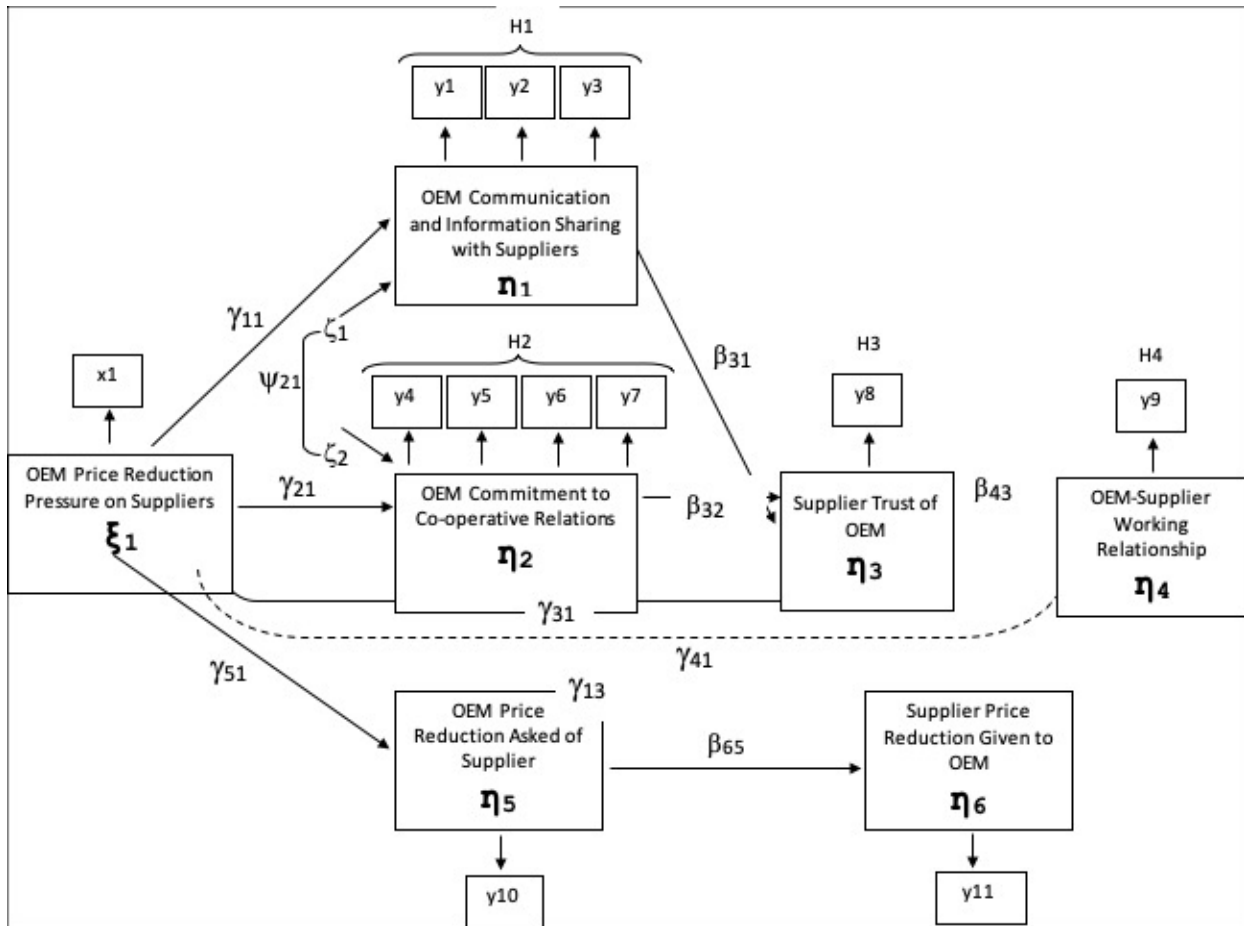
In this study, the supplier sales-related respondents were asked to answer the questions for each of the six major North American OEMs (Chrysler, Ford, General Motors, Honda, Nissan, and Toyota) their firm was currently supplying on the basis of "the most important commodity area, measured in annual 2001 dollar sales of goods," they supplied the OEM. The commodity areas include powertrain, chassis, exterior, interior, electrical and electro-mechanical, and body-in-white. A total of 279 Tier 1 supplier-completed useable questionnaires resulted from a mailing of 642 surveys (April - June 2002) for an effective response rate of 43.5%. The suppliers provided information on 946 OEM commodity area buying situations. The participating suppliers' self-reported 2001 North American automotive OEM sales ranged from \$30 million to almost \$30 billion. The

279 participating suppliers, on the basis of their 2001 sales to the North American OEMs, supplied approximately 47% of the annual production buy of the six OEMs.

To ensure that non-response bias did not occur,

early and late response groups were created and compared using multiple measures. No significant differences, at the .05 level, were found in the comparisons of any of measures using t-tests.

**Figure 1**  
**Proposed Research Model**



**The Proposed Research Model**

The proposed research model is presented in Figure 1. The major underpinning of this research is that OEM price reduction pressure on suppliers and cooperative OEM-supplier relations with the pressured suppliers could be independent of each other. This is reflected in

the model through two dependent variables: OEM-Supplier Working Relationship ( $\eta_4$ ) and Supplier Price Reduction Given to OEM ( $\eta_6$ ).

OEM-Supplier Working Relationship ( $\eta_4$ ) is presented as a dependent variable that is directly influenced by Supplier Trust of OEM ( $\eta_3$ ). Supplier Trust of OEM ( $\eta_3$ ), in turn, is modeled as a variable that is directly

influenced by two factors: OEM Communication and Information Sharing with Suppliers ( $\eta_1$ ), and the OEM Commitment to Co-operative Relations ( $\eta_2$ ). That OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ) may affect the OEM-Supplier Working Relationship ( $\eta_4$ ) is modeled by treating OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ) as an independent variable that affects OEM Communication and Information Sharing with Suppliers ( $\eta_1$ ), OEM Commitment to Co-operative Relations ( $\eta_2$ ), and Supplier Trust of the OEM ( $\eta_3$ ).

When the OEM demands price reductions, the demand itself may be both a reflection of existing price reduction pressure and/or a cause of more price reduction pressure. Thus, OEM Price Reduction Asked of Supplier ( $\eta_5$ ) is modeled as an endogenous variable that is influenced by OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ). OEM Price Reduction Asked of Supplier ( $\eta_5$ ), in turn, directly influences Supplier Price Reduction Given to OEM ( $\eta_6$ ), the second dependent variable in this research.

The two endogenous variables,  $\eta_5$  and  $\eta_6$ , are not part of the theoretical structure of the proposed research model. They are included in the structural equations model of this research to evaluate the criterion-related validity of the price pressure construct.

### **The Measurement Model**

The indicators used for the measurement of the constructs in the proposed model are presented in Table 1. Since two of the constructs, Communication and Information Sharing, and Commitment to Cooperative Relations are measured using multiple indicators ( $y_1 - y_3$  and  $y_4 - y_7$ , respectively) the indicators of these constructs were assessed for unidimensionality and reliability using ITAN (Gerbing and Hunter 1988), a statistical

package for item analysis using correlational data.

ITAN analysis indicated that the multi-item indicators were strong on the criteria of unidimensionality. Indicators loaded significantly higher on their own constructs than on other constructs. The tendency to load higher on one construct may be viewed as a reflection of convergent validity and the low loading against other constructs may be viewed as a reflection of discriminant validity. Measure reliability of multi-indicator measures was assessed using coefficient  $\alpha$ . The standardized values of coefficient  $\alpha$  were 0.855 for Communication and 0.897 for Commitment. The results from ITAN analysis provide support for the unidimensionality and the reliability of the indicators in the measurement model.

### **The Analysis of the Proposed Research Model**

The analysis was performed in two stages. In the first stage, the proposed research model (Figure 1) was tested and assessed using LISREL 8.30 (Jöreskog and Sörbom 1999). In the second stage, the model was adjusted by removing specific links and constructs, and the results of LISREL analysis were evaluated in order to evaluate the importance of the links that were removed and the changes that were made.

The results of LISREL analysis provided moderate support to the proposed research model. The chi-square goodness-of-fit did not support the model ( $\chi^2 = 355.91$ ,  $p = 0.0$ ). The Root Mean Square Error of Approximation (0.10) and the Root Mean Square Residual (0.11) provide only weak support. The Normed Fit Index (0.92), the Comparative Fit Index (0.93), the Incremental Fit Index (0.93), and the Relative Fit Index (0.89), all provide strong support for the structural relationships

modeled. The Goodness-of-Fit Index (0.91), the Adjusted Goodness-of-Fit Index (0.86), and the Parsimony Goodness-of-Fit Index (0.57) provide fairly good support for the model.

Unlike the fit of the overall model, the values of most of the structural coefficients are significant (with T-values  $\leq -1.96$  or  $\geq 1.96$ ). The values of the structural coefficients from the standardized solution are presented in Table 2.

**Table 2**  
**Theoretical Structure Analysis:**  
**Standardized Solution Structural Coefficients**

Indicators		Coefficients
$\gamma_{11}$	OEM price reduction pressure on suppliers and OEM communication with suppliers	-.18 <sup>S</sup>
$\gamma_{21}$	OEM price reduction pressure on suppliers and OEM commitment to co-operative relations	-.36 <sup>S</sup>
$\gamma_{31}$	OEM price reduction pressure on suppliers and supplier trust of OEM	-.06
$\gamma_{41}$	OEM price reduction pressure on suppliers and OEM-supplier working relationship	.04
$\gamma_{51}$	OEM price reduction pressure on suppliers and OEM price reduction asked of supplier	.30 <sup>S</sup>
$\psi_{21}$	OEM communication and information sharing with suppliers, and OEM commitment to co-operative relations	.61 <sup>S</sup>
$\beta_{31}$	OEM communication and information sharing with suppliers, and supplier trust of OEM	.16 <sup>S</sup>
$\beta_{32}$	OEM commitment to co-operative relations and supplier trust of OEM	.82 <sup>S</sup>
$\beta_{43}$	Supplier trust of OEM and OEM-supplier working relationship	.84 <sup>S</sup>
$\beta_{65}$	OEM price reduction asked of supplier and supplier price reduction given to OEM	.55 <sup>S</sup>

The superscript <sup>S</sup> denotes significance as reflected in a t-value  $\leq -1.96$  or  $\geq 1.96$

The structural coefficient of .84 presented in Table 2 provides strong support for the positive relationships between an OEM-Supplier Working Relationship and Supplier Trust of OEMs ( $\beta_{43}$ ). The relationship between OEM Commitment to Co-operative Relations and Supplier Trust of OEM (.82,  $\beta_{32}$ ) was also found to be significant, substantial, and positive. The relationship between OEM Communication and Information Sharing with Suppliers, and Supplier Trust of OEM (.16,  $\beta_{31}$ ) remains positive and significant, but relatively weaker.

The direct relationship between OEM Price Reduction Pressure on Suppliers and Supplier Trust of OEM ( $\gamma_{31}$ ), and OEM-Supplier Working Relationship ( $\gamma_{41}$ ) are both very weak and are not significant. The correlations between the endogenous variables indicate a strong significant and positive relationship of .61 between OEM Communication and Information Sharing with Suppliers, and OEM Commitment to Cooperative Relations ( $\psi_{21}$ ).

The relationship between OEM Price Reduction Pressure on Suppliers, the only

exogenous variable in the model, and OEM Communication and Information Sharing with Suppliers ( $\gamma_{11}$ ), although significant, is relatively weak and negative with a value of -.18. The relationship of the exogenous variable and OEM Commitment to Co-operative Relations ( $\gamma_{21}$ ) is also negative and significant, but stronger (-.36).

The relationship between OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ) and OEM Price Reduction Asked of Supplier (.30,  $\gamma_{51}$ ) and that between OEM Price Reduction Asked of Supplier and Supplier Price Reduction Given to OEM (.55,  $\beta_{65}$ ) are significant, substantial, and positive. The values of these two structural coefficients indicate that the measurement of price pressure in this research possesses an acceptable level of criterion-related validity.

The value of  $\gamma_{31}$ , the structural coefficient between OEM Price Reduction Pressure on Suppliers and Supplier Trust of OEM, is very weak (-.06) and not significant. The values of  $\gamma_{31}$  contrast sharply with the much higher  $\beta_{31}$  value, representing the impact of OEM Communication and Information Sharing with Suppliers on Supplier Trust of OEM, and  $\beta_{32}$ , representing the impact of OEM Commitment to Co-operative Relations on Supplier Trust of OEM.

The above findings of LISREL analysis have important managerial implications. They indicate that conscious and well-planned efforts to maintain superior communication and treatment of supplier, even in the presence of price reduction pressure, may reduce the negative impact of price reduction pressure on trust by weakening the relationships represented by  $\gamma_{11}$  and  $\gamma_{21}$ . The results of LISREL analysis indicates that the manufacturer's price reduction pressure on suppliers and the pressured supplier's trust of

the manufacturer is mostly captured by the indirect relationship between the two variables through the latent variables: Communication and Commitment.

The results of LISREL analysis do not support the existence of direct relationships between OEM Price Reduction Pressure on Suppliers and OEM-Supplier Working Relationship. The direct relationship ( $\gamma_{41}$ ) between the two variables is very weak (.04) and not significant. Hence, the relationship between  $\xi_1$  and  $\eta_3$  or  $\eta_4$  is unlikely to bypass OEM Communication and Information Sharing with Suppliers, and OEM Commitment to Co-operative Relations. This indicates that the relationship, if any, between OEM Price Reduction Pressure on Suppliers and OEM-Supplier Working Relationship probably takes place through OEM Communication and Information Sharing with Suppliers, and/or OEM Commitment to Co-operative Relations, and through Supplier Trust of OEM, as described in Figure 1, thus validating our research model.

### **The Cross-Organizational Study**

While statistical analysis of the collected data made it possible for us to test our model of the relationship between price pressure and working relationships, we realized that there could be interorganizational differences in the relationship between price pressure and working relationship. Some of these differences may be related to the evolution of strategic sourcing.

Manufacturers have been shown to take actions that preclude the need to pressure suppliers for price reductions. It has been suggested that supplier and manufacturer relations pass through four stages (Bhote 1989) beginning with an adversarial, bordering on hostile relationship. The relations then may evolve through three stages eventually ending with a partnership-like relationship that is



characterized by mutual trust, with manufacturer and supplier working closely together to achieve lower costs. We felt that a study of interorganizational differences in the modeled relationships may reveal evolutionary stages in strategic sourcing and other differences that may be promising avenues for future research.

The collected data were subdivided by OEM: three American OEMs (General Motors, Ford, and Chrysler) and three foreign (Honda, Toyota, and Nissan). The data sets contained the same items, measured using the same instruments. They were analyzed using identical oblique confirmatory factor analytic models available in ITAN (Gerbing and Hunter 1988). The output of ITAN is simpler and easier to read than that of LISREL. Moreover, unlike LISREL which is based on

the full information method (i.e., all covariances in the model are analyzed for the estimation of each parameter), ITAN uses the limited information method (i.e., covariances relevant to each latent variable are analyzed separately). Because of its use of the limited information method, values and weights calculated by ITAN are not unduly influenced by other, often unrelated variables in the model (Anderson and Gerbing 1982).

One of the sets of outputs computed by ITAN is the Factor-Factor correlation. The factor-factor correlations for the complete data set are presented in Table 3 and the analyses of the separated data for the six OEM's are presented in Table 4. The sample sizes for the analyzed data sets were: Combined (613), General Motors (152), Ford (135), Chrysler (132), Honda (78), Toyota (55), and Nissan (61).

**Table 3**  
**Factor – Factor Correlations**

		$\xi_1$	$\eta_1$	$\eta_2$	$\eta_3$	$\eta_4$	$\eta_5$	$\eta_6$
$\xi_1$	OEM price reduction pressure on suppliers	1.00						
$\eta_1$	OEM communication and information sharing with suppliers	-.15	1.00					
$\eta_2$	OEM commitment to co-operative relations	-.29	.63	1.00				
$\eta_3$	Supplier trust of OEM	-.30	.62	.79	1.00			
$\eta_4$	OEM-supplier working relationship	-.22	.50	.70	.63	1.00		
$\eta_5$	OEM price reduction asked of Supplier	.24	-.15	-.22	-.17	-.07	1.00	
$\eta_6$	Supplier price reduction given to OEM	.12	-.01	-.07	-.06	.05	.44	1.00

**Table 4**  
**Factor – Factor Correlations for Participating OEMs**

OEM1	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	-.07	1.00			
Commitment	-.13	.62	1.00		
Trust	-.15	.52	.76	1.00	
Relationship	-.07	.47	.73	.63	1.00
OEM2	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	-.14	1.00			
Commitment	-.21	.62	1.00		
Trust	-.22	.57	.74	1.00	
Relationship	-.18	.46	.66	.58	1.00
OEM3	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	-.22	1.00			
Commitment	-.35	.60	1.00		
Trust	-.37	.52	.78	1.00	
Relationship	-.37	.52	.64	.61	1.00

**Table 4 (Continued)**  
**Factor – Factor Correlations for Participating OEMs**

OEM4	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	.15	1.00			
Commitment	-.04	.43	1.00		
Trust	-.05	.57	.67	1.00	
Relationship	.11	.25	.52	.52	1.00
OEM5	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	-.10	1.00			
Commitment	-.36	.57	1.00		
Trust	-.34	.62	.79	1.00	
Relationship	-.33	.55	.73	.66	1.00
OEM6	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	.18	1.00			
Commitment	-.03	.52	1.00		
Trust	-.12	.55	.66	1.00	
Relationship	.02	.32	.71	.50	1.00

The correlations presented in Table 3 correspond closely with the structural coefficients estimated by LISREL. The only exception is the relationships ( $\gamma_{31}$ ) between OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ) and Supplier Trust of OEM ( $\eta_3$ ) and that ( $\gamma_{41}$ ) between OEM Price Reduction Pressure on Suppliers ( $\xi_1$ ) and OEM-Supplier Working Relationship ( $\eta_4$ ) which after LISREL analysis were determined to be very weak and non-significant. ITAN analysis results in much larger values of ( $\gamma_{31}$ ) and ( $\gamma_{41}$ ) because ITAN does not adjust these values for the path of the relationship through Communication and Information Sharing ( $\eta_1$ ), Commitment ( $\eta_2$ ) and Trust ( $\eta_3$ ). Similarly, the values of the relationships between Communication and Working Relationship ( $\beta_{41}$ ) and the relationships between Commitment and Working Relationship ( $\beta_{42}$ ) also may be exaggerated, by not adjusting for the modeled path of the relationship through Trust ( $\eta_3$ ). It should be noted that, unlike the LISREL model, there is no theoretical model linking or constraining relationships among the factors.

A close examination of the correlations presented in Table 4 shows that the pattern of relationships is quite similar. The only noticeable relationship is in the relationship between Price Pressure and Communication which is negative in four of the organizations and positive in two. In the four organizations with negative relationships, price pressure seems to be associated with supplier perceptions of less open and honest communication, lack of timeliness of information, and inadequacy of information (i.e., poor communication). In the remaining two with the positive relationship, it seems to be associated with perceptions of openness and honesty, timeliness, and adequacy (i.e., good communication).

It is noteworthy that the two subsamples differ in such an important relationship. Manufacturer communication with suppliers can take many forms, including impersonal, as well as personal communication (Cannon and Homburg 2001). Regardless of the communication form, for a manufacturer-supplier relationship to grow into a co-operative relationship, communication between the involved parties must involve the sharing of both timely and meaningful information (Anderson and Narus 1990). Communication between manufacturers and their suppliers is also a critical element in providing the manufacturer a competitive advantage.

Sako and Helper (1998) further substantiated this need when they found that the greater the information shared by customers with suppliers, the greater the trust of the customer by the supplier. In our data, we could not see any clear difference in the strength of the relationship between communication and trust between the two companies with positive Price Pressure-Communication relationships and the others. However, the values of Trust could be explored further to determine whether there are noticeable differences in the absolute amount of Trust. In the two organizations with positive Price Pressure-Communication relationships, the direct (non-modeled) relationship between Communication and Working Relationship appears to be lower than those seen in the other groups. This too is a question that could be explored further.

Upon closer examination, it was found that the two organizations with positive Price Pressure-Communication relationships are both Japanese companies. The data for the three Japanese companies were combined as were the data for the three American companies (sample sizes: American, 419; Japanese, 194). The Factor-Factor correlations for the two groups are presented in Table 5. The less

negative (i.e., positive) relationship between Price Pressure and Communication among the Japanese companies is clearly noticeable in the findings. Although it is too early to conclude

so, this finding appears to indicate that some of the Japanese manufacturers are at a higher stage in the evolution of strategic sourcing (Bhote 1989).

**Table 5**  
**Factor – Factor Correlations of American and Japanese OEMs**

<u>American</u>	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	-.15	1.00			
Commitment	-.24	.61	1.00		
Trust	-.25	.54	.76	1.00	
Relationship	-.21	.49	.68	.61	1.00
<u>Japanese</u>	Pressure	Communication	Commitment	Trust	Relationship
Pressure	1.00				
Communication	.10	1.00			
Commitment	-.22	.55	1.00		
Trust	-.23	.61	.75	1.00	
Relationship	-.13	.42	.69	.61	1.00

This finding is consistent with reports regarding supplier-OEM relationships which involve Japanese automobile manufacturers. Toyota, for instance, is known to have recognized the importance of higher quality

communication with suppliers early when it began a process to improve its supplier relations at Toyota Australia (Langfield-Smith and Greenwood 1998). It was the increasing competition from Japanese auto manufacturers

that made the US automobile manufacturers realize the need to work more closely with their suppliers to solve problems that would eventually help the automakers in the marketplace (Helper1991). Inherent in this process is more frequent information sharing by the manufacturers with suppliers and with greater amounts of information (Monczka, et al 1998: Nelson, Mayo, and Moody 1998).

### Summary and Conclusions

The results of our study show that there is no meaningful relationship between price pressure and cooperative supplier customer relationship. Our findings indicate that manufacturers can apply price reduction pressure while having a trusting working relationship with their pressured suppliers.

There is some indication of a relationship between price pressure and poor communication. In addition, the relationship that reflects the treatment of pressured suppliers or commitment towards them by the manufacturers demanding price reduction was found to be less than positive. Both variables (Communication and Commitment) however, are managerially controllable. It is our conclusion that if manufacturers work closely with their suppliers, signal commitment, and improve communication, they can apply reasonable price pressure and maintain good relationships simultaneously.

Our cross-organization study provided further support for our findings and indicated that the findings are generalizable across organizations and manufacturers from different countries. At the same time, we found that Japanese manufacturers, in general, have made greater strides in supporting their price reduction efforts with effective communications with their suppliers. This study also raised some important issues for future research. Why is the relationship between Price Pressure and

Communication positive for some companies and negative for others? What form does communication take in these differing groups? Does a positive relationship indeed make a difference as far as the working relationship is concerned? How do companies that manage to combine price reduction pressure with good supplier working relationships differ from those that do not? Is the difference between Japanese companies and American companies in their supplier relationships generalizable to other industries? And finally, is there anything that American industries and global industries can learn from this?

### References

- Anderson, J. C. and Gerbing, D. W. (1982). "Some Methods for Respecifying Measurement Models to Obtain Unidimensional Construct Measurement," *Journal of Marketing Research*, Vol XIX (4), November: 453-60.
- Anderson, J. C. and Narus, J. A. (1990). "A Model of Distributor Firm and Manufacturer-Firm Working Partnerships," *Journal of Marketing* (January): 42-58.
- Bhote, K. R. (1987). *Supply Management: How to make U.S. suppliers competitive*, American Management Association: New York: 14-19.
- (1989), *Strategic Supply Management – A Blueprint for Revitalizing the Manufacturing-Supplier Partnership*, American Management Association: New York: 12-21.
- Cannon, J. P., and Homburg, C. (2001). "Buyer-Supplier Relationships and Customer Firm Costs," *Journal of Marketing*, 65 (January): 29-43.
- Das, T. K., and Teng, B. S. (1998). "Between Trust and Control: Developing Confidence in

- Partner Cooperation in Alliances," *Academy of Management Review*, 23 (3): 491-512.
- Day G. S. (2000). "Managing Market Relationships," *Academy of Marketing Science Journal*, 28 (1) (Winter): 24-30.
- Dwyer, F. R., Schurr, P.H., and Oh, S. (1987), "Developing Buyer-Supplier Relationships," *Journal of Marketing*, 51 (April): 11-27.
- Frazier, G. L. and Antia, K. D. (1995). "Exchange Relationships and Inter-firm Power in Channels of Distribution", *Journal of the Academy of Marketing Science*, 23 (4), (Fall): 321-326.
- Gerbing, D.W. and Hunter, J. E. (1988). *ITAN: A Statistical Package for Item Analysis with Correlational Data including Multiple Groups Confirmatory Factor Analysis*, Portland State University: Portland, OR.
- Gundlach, G. T., Achrol, R. S., and Mentzer, J. T. (1995). "The Structure of Commitment in Exchange," *Journal of Marketing*, 59 (January): 78-92.
- Han, S.L., Wilson, D. T., and Dant, S. P. (1993), "Buyer-Supplier Relationships Today," *Industrial Marketing Management*, 22: 331-338
- Helper, S. (1991). "How Much Has Really Changed between U.S. Automakers and Their Suppliers?" *Sloan Management Review* (Summer): 15-28.
- Jap, S. and Ganesan, S. (2000). "Control Mechanisms and the Relationship Life Cycle: Implications for Safeguarding Specific Investments and Developing Commitment," *Journal of Marketing Research*, 37 (May): 227-45.
- Jöreskog, K. G. and Sörbom, D. (1999). *LISREL 8.30: Interactive LISREL*, Chicago: Scientific Software International.
- Kalwani, M. U. and Narayandas, N. (1995). "Long-Term Manufacturer-Supplier Relationships: Do They Pay Off for Supplier Firms?" *Journal of Marketing* 59 (January): 1-16.
- Kobe, G. (2001). "Supplier Squeeze," *Automotive Industries*, (March): 26-30.
- Lambe, C. J., Wittman, C. M., and Spekman, R. E. (2001). "Social Exchange Theory and Research on Business-to-Business Relational Exchange," *Journal of Business-to-Business Marketing*, 8 (3): 1-36.
- Langfield-Smith, K. and Greenwood, M. R. (1998). "Developing Co-operative Buyer-Supplier Relationships: A Case Study of Toyota," *Journal of Management Studies* (May): 331-353.
- Mohr, J. and Spekman, R. (1994). "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques," *Strategic Management Journal*, 15: 135-152.
- Mohr, J., Fisher, R. J., and Nevin, J. R. (1996). "Collaborative Communications in Interfirm Relationships: Moderating Effects of Integration and Control," *Journal of Marketing*, 60 (July): 103-115.
- Monczka, R. M., Peterson, K. J., Handfield, R. B., and Ragatz, G. L. (1998). "Success Factors in Strategic Supplier Alliances: The Buying Company Perspective," *Decision Sciences*, 29 (3): 553-577.
- Morgan, R. M. and Hunt, S. D. (1994). "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July): 20-38.
- Nelson, D., Mayo, R., and Moody, P. E. (1998). *Powered by Honda: Developing*

*Excellence in the Global Enterprise*, New York: John Wiley & Sons: 141-168.

Sako, M. and Helper, S. (1998). "Determinants of trust in supplier relations: Evidence from the automotive industry in Japan and the United States," *Journal of Economic Behavior & Organization*, (March): 387-417.

Sherefkin, R. (2003). "DCX mandate: 'World Prices'," *Automotive News*, (June 16): 1+.

Sheth, J. N. and Sharma, A. (1997), "Supplier Relationships, Emerging Issues and Challenges," *Industrial Marketing Management*, 26: 91-100.

Smeltzer, L. R. (1997). "The Meaning and Origin of Trust in Buyer-Supplier Relationships," *International Journal of Purchasing and Materials Management*, (Winter): 40-48.

Spekman, R. E. (1988). "Strategic Supplier Selection: Understanding Long-Term Buyer Relationships," *Business Horizons*, (July-August): 75-81.

----- (2000). "A Commentary on Business Marketing: A Twenty-Year Review and an Invitation for Continued Dialogue," *Journal of Business-to-Business Marketing*, 7 (4): 11-32.

Stuart, I. and McCutcheon, D. (1995). "Problem sources in establishing strategic supplier alliances," *International Journal of Purchasing & Materials Management*, (Winter): 7-9.

Varadarajan, P. and Cunningham, M. H. (1995). "Strategic Alliances: A Synthesis of Conceptual Foundations," *Journal of the Academy of Marketing Science*, 27 (2), (Fall): 282-296.

Wilson, D. T. (1995). "An Integrated Model of Buyer-Seller Relationships," *Journal of Academy of Marketing Sciences*, (Fall): 335-345.

Zaheer, A., McEvily, B., and Perrone, V. (1998). "The Strategic Value of Buyer-Supplier Relationships," *International Journal of Purchasing and Materials Management*, (August): 20-26.