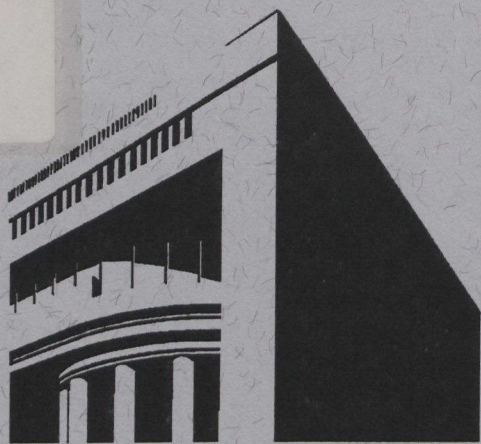


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# Canadian Studies Grant Programs

Canadian and U.S. Suppliers: How They Differ  
and Why That Matters

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Canadian Embassy/Ambassade du Canada  
Washington, D.C.

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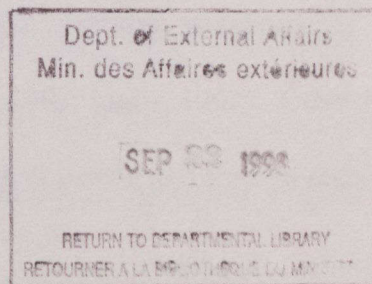


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Research grants are designed to assist individual American scholars, a group of scholars, and/or scholars working with a cooperating Canadian institution, in writing an article-length manuscript of publishable quality that contributes to the development of Canadian Studies in the United States and reporting their findings in scholarly publications.

According to the terms and conditions of the grant, the rights of the manuscript remain the exclusive property of the researcher. Copies of the manuscript are provided to the Embassy and the Department of Foreign Affairs and International Trade.



Submitted to the Canadian Embassy, Washington, D.C. for completion of  
the contract with the Canadian Studies Research Grant Program.



## Canadian and U.S. Suppliers:

### How They Differ

### and Why that Matters

Thomas J. Callahan

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On an empirical level, research has established that Canadian suppliers may fall behind U.S. suppliers in several areas, including customer and supplier interfaces, warehousing, transportation, and materials planning (Brown, 1995; Byrne, 1993; Inglis, 1992). Other research has shown that Canadian products are not perceived highly by domestic and foreign consumers (Papadopoulos, Heslop, & Bamossy, 1994).

The goal of this research is to (1) determine whether a performance gap exists between Canadian suppliers and U.S. suppliers as perceived by their customers on both sides of the border, (2) identify the reasons for any performance gaps, and (3) propose ways to reduce any gaps.

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the contract with the Canadian Studies Research Grant Program.

## Abstract

Research recently has compared the performance of Canadian suppliers to the performance of their U. S. counterparts. According to several of these studies, Canadian suppliers perform at a level below that of U.S. suppliers in some areas, including customer and supplier interfaces, warehousing, transportation, and materials planning. These studies have indicated the need for Canadian suppliers to close a measurable gap between the abilities of Canadian suppliers and the abilities of U. S. suppliers to develop long term relationships and strategic alliances with buying firms. This study surveyed the customers of 22 Canadian and 19 U.S. firms. The 484 responses indicated that the perceptions of customers significantly differ for Canadian and U.S. firms on a number of performance criteria. Ways firms might change customers perceptions are discussed.

## Canadian and U.S. Suppliers:

### How They Differ and Why that Matters

#### Background

On a theoretical level, researchers (e.g., Ghosal & Insead, 1996; Heide & John, 1990; Heide & Miner, 1992; Levinthal & Fichman, 1988) have attempted to identify the circumstances and actions which lead to the development and maintenance of close relationships between buying and selling firms. These researchers have identified several variables which have been shown to influence the development and maintenance of buyer-supplier relationships in a variety of situations. Among these variables, investments in assets on the part of the exchange partners which are tailored to the relationship (Heide & John, 1990), the mutual dependence of the firms upon each other (Frazier & Rody, 1991), and the partners' participation in joint projects (Kogut, 1988) have been shown to be consistent predictors of the quality of buyer and supplier relationships.

On an empirical level, research has established that Canadian suppliers may fall behind U.S. suppliers in several areas, including customer and supplier interfaces, warehousing, transportation, and materials planning (Brown, 1995; Byrne, 1993; Inglis, 1992). Other research has shown that Canadian products are not perceived highly by domestic and foreign consumers (Papadopoulos, Heslop, & Bamossy, 1994).

The goal of this research is to (1) determine whether a performance gap exists between Canadian suppliers and U.S. suppliers as perceived by their customers on both sides of the border, (2) assess the size of any technical or relationship performance gaps between Canadian and U.S. suppliers, and (3) recommend changes that may be implemented to reduce any gaps

which may exist. Recent theoretical contributions and empirical research will guide both the study and recommendations.

### Cooperative Behaviors

Oliver (1990) has noted that previous research on relationships between firms assumes that their formation is, at least partially, attributable to interpersonal phenomena. Research conducted by Anderson & Narus (1990), Frazier & Rody (1991), Ghosal & Insead (1996), and Hill (1990) has shown that communication, collaboration, and coordination lead to the development of close relationships between organizations.

Furthermore, the tenets of transaction cost economics (Williamson, 1991) maintain that many of the costs of relationships are not associated with the mechanics of the buying or selling process per se, but rather are created by firms investing to safeguard themselves against dishonesty or deceit on the part of their trading partners. Cooperative behaviors may ameliorate the need for these safeguards (Williamson, 1991; 1993).

### Dependence

Pfeffer & Salancik (1978) have argued that the constraints on a supplier's capital and skill resources require it to specialize its products and services to the needs of a limited number of buying firms. These limitations result in the supplier's dependence on this small number of firms for business. As a result of this dependence, the supplier experiences risk that one or more of its trading partners will take advantage of the supplier. According to the resource dependence perspective, a supplier attempts to decrease risk and add stability to a trading relationship by seeking closer relationships and alliances, whether formal or informal, with its buying firms (Kogut, 1988).

The components involved in creating closer relationships include investments in personnel,



capital investments and joint programs directed toward improving the relationships between firms. The point made by the resource dependence perspective (Pfeffer & Salancik, 1978) is that dependence can lead to activities directed toward the development of closer relations between buying and selling firms.

### Quality

A few studies have attempted to assess the quality issue for Canadian firms. One study, Johnson, Kamauff, Schein & Wood (1995) surveyed senior operations executives from 36 Canadian firms. These executives rated quality as the fourth most important competitive consideration for their firms in the post-NAFTA environment, the same ranking they gave quality in a similar pre-NAFTA survey. Byrne (1993) reported that about the same percentage of Canadian and U.S. firms had integrated quality processes with their customers, 37% cf. 41%. Kohse (1994) reported that a survey conducted by Industry Canada and Statistics Canada found a west-to-east pattern in adoption of quality management programs. Western provinces have been much more likely to have adopted such programs than have Eastern provinces.

At a more basic level, perceptions of Canadian products including their quality and integrity may be relatively low in a number of countries. Specifically, Papadopoulos et al. (1994) have reported that consumers in eight countries, including Canada and the United States, rated the integrity and quality of Canadian either last or next to last when they were asked for their impressions of products from a variety of countries. Papadopoulos et al. (1994) have expressed the belief that a widespread consumer impression is that Canada succeeds primarily as a producer of raw materials rather than manufactured goods.

### Costs

Costs have been the objects of study in theoretical frameworks of buyer-supplier

relationships. For example, Frazier (1983) has shown that satisfaction with the cost aspects of a buyer-seller relationship is an important factor in determining whether the relationship will continue. Among the studies which have looked at cost satisfaction, Mohr & Spekman (1994) have established that this variable is positively related to overall trust in a buying firm, although it is negatively related to information sharing behaviors. The cost measure is included in this study because of paramount importance of cost factors to the profit motives of both the buying and selling firms.

In research specifically studying attitudes toward costs as a strategic variable, Johnson et al. (1995) reported that Canadian executives ranked cost as the most important emphasis area in the post-NAFTA competitive environment, although the authors note that the mean rating for the cost factor by U.S. executives indicated a stronger focus on this variable.

### Delivery

Johnson et al. (1995) have found that Canadian executives ranked speed of delivery as their second most important competitive variable for future strategic focus. Dependability of delivery was ranked as the fifth most important competitive variable in the same study. Despite these priorities, Byrne (1993) reported that in the 1990's, performance measures for order completeness and on-time performance for Canadian firms still lagged behind the performance of U.S. firms, although Canadian firms have been improving in these areas.

### Service

Johnson et al. (1995) found Canadian executives ranked customer service as the third most important variable for future competitive focus. Byrne (1993) noted that Canadian firms have a greater percentage of inaccurate invoices than do U.S. firms, but Canadian firms have a lower damaged receipts percentage than U.S. firms. Inglis (1992) has pointed out that the low

density of markets and long distances between points of demand present significant challenges to the Canadian supplier in the areas of both delivery and after-sale service and may explain some of the lower ratings these suppliers receive. Brown, (1995) noting survey results which indicate that U.S.-based businesses are more likely than Canadian-based businesses to achieve improved customer satisfaction, indicated that the difference in these results can be explained by the fact that U.S. suppliers focus on service as a means to improve customer satisfaction and add value to their product.

### Investments in Partnerships

Firms involved in ongoing business relationships invest in plant, equipment, and labor which have been tailored to the specific needs of a trading partner and which might have little or no value outside of those relationships. Heide & John (1990) have established that the levels of specific investments by the supplier predict levels of cooperative actions on the part of both the buying and supplying partners.

From an investment perspective, Byrne (1993) and Inglis (1993) have reported Canadian firms lag behind the U.S. in the development of interfaces with customers, including those in the areas of warehousing, transportation and material planning & control.

### Joint Programs

In situations in which dependence and the possibilities for opportunistic actions are great, firms seek to create reciprocal obligations (Heide & John, 1992). Reciprocal obligations might be accomplished through joint programs or cooperative ventures (Kogut, 1988). As evidence of this prediction, Kogut (1988) has shown that when a firm involves itself in joint programs with another firm, the relationship between the two becomes more stable.

From a practitioner's perspective, Byrne (1993) reported that only 42% of Canadian

firms had established joint teams with their customers to improve quality and productivity, whereas 50% of U.S. firms had established such teams.

### Exchange of Technology and Cost Information

Exchange of technology and cost information measures the degree to which a supplier is willing to share cost reduction information and technology, as well as the degree to which the buying firm is willing to accept and use that information. We chose this variable because this measure represents voluntary behaviors, as opposed to behaviors typically mandated by a contract. These behaviors imply relationships that go beyond those which would occur in purely contractual relationships between buying and selling firms. Huber & Daft (1987) have reported more frequent information exchanges are associated with closer ties, at least between high performing partners. Garcia-Canal (1996) has shown that international joint ventures are directed toward gaining access to information of a foreign firm about markets and technology to a greater degree than are domestic joint ventures.

### Manufacturing

Shelley & Litvak (1996) have reported that Canadian manufacturers need to develop access to product development facilities to put them on par with U.S. competitors, at least in the plastics industry. Likewise, Byrne (1993) has reported that despite great improvements in cycle time reduction, Canadian firms still lag U.S. firms in their overall performance for this criterion.

Byrne (1993) has maintained that analysis along the A.T. Kearney Stages of Excellence Framework for Logistics, an area including a number of manufacturing areas, only 8% of Canada's major suppliers have the capacity to deliver excellent customer satisfaction.

## Method

### Data Collection

A sample of Canadian and U. S. suppliers was randomly identified for participation in this study from lists of firms provided by a number of sources including the Harris Guide, the ELM Guide, Internet resources, and industry directories. An introductory letter asked for the participation of the suppliers in this study. Companies in Quebec were sent letters in both French and English. Approximately 3% of the contacted companies expressed interest in the study. These suppliers were sent more detailed information about the study, as well as a copy of the questionnaire. Approximately two-thirds of this group eventually agreed to provide a list of their customers for the study. These companies represented a diverse group. Some were speciality divisions of Fortune 500 companies, whereas others were publicly or privately held independent companies. The criteria for participation in this study were that the company produced a product which was sold to either other manufacturing firms or distributors and that they were able to provide us with a list of between 20 and 150 of their customers. Aggregated, but not individual, company responses from each supplier's unique sample of buying firms were provided to the participating supplier after the data collection as an incentive for the supplying firms to participate.

After the companies provided their lists, the supplier's customers were mailed a letter asking for their cooperation in filling out the survey questionnaire, as well as a postage paid business reply envelope, and a postage paid postcard to be returned to the supplier at the same time the survey was sent to the researcher. Each letter was signed by the researcher. Customers were informed that the Canadian Embassy in Washington, D.C. had funded the study and that each respective supplier had given the researcher permission to survey its respective customers.

Customers in Canada returned their surveys to a post office box in Windsor, Ontario. Customers in the U.S. returned the surveys to the University where the researcher is employed. Two weeks after the surveys were mailed, a reminder notice was sent to all participants.

### Sample

The sample consisted of 484 customers of 39 companies or their divisions. This sample contained data from the customers of 22 Canadian firms and 17 U.S. firms. Determining the nationality of the firms presented one problem. Many firms had multiple and multinational divisions and locations to be surveyed. This reality created problems for defining whether the firm should be classified as Canadian or U.S. This problem was resolved with the application of a simple rule: The country in which the product was produced and distributed determined the nationality assigned for the firm or division.

The respondents, 281 from the U.S. and 199 from Canada, represented a wide range of industries, including automotive, electronics, industrial equipment, general manufacturing, computer manufacturing, consumer goods, and defense. Yearly customers' purchases from the suppliers ranged from less than \$1000 to more than \$1 billion (U.S.). The mean of purchases from the suppliers was \$4 million with a median of \$126,000.

Almost 20% of the respondents were Chief Executive Officers's or Chief Operating Officers and more than 60% of the respondents were management employees.

### Instrument

Each customer of the identified supplier was asked to fill out a survey which contained 65 Likert scaled items which were designed to assess the variables previously described. Open-ended response items were included to allow for additional comments or concerns in the areas of cooperation, quality, cost, delivery, service, and personnel.

## Data Analyses

The interval scaled items in the data set were factor-analyzed using varimax rotation. This factor analysis resulted in the confirmation of nine of our hypothesized independent factors. Two factors we had hypothesized, joint actions and exchange of technology/cost information, loaded on the same factor. The inclusion of this single factor resulted in ten factors for the analysis. Taken together, the factors accounted for 74 percent of the variance in the data set. The scale names, the items comprising the scales, and the coefficient alpha for each scale are presented in Table 1. The correlation matrix for the scales is shown in Table 2.

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Insert Tables 1 and 2 about here.

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The study was designed as a two- (suppliers' nationalities) by- two (customers' nationalities) multivariate analysis of variance (MANOVA). At this point in the continuing data collection, MANOVA analysis is not feasible because of the low number of subjects in one of the four cells. Only six Canadian customers of U.S. suppliers responded to the survey, although all other cells are well represented. Large samples have been found to be robust in overcoming lack of homogeneity and problems associated with unbalanced (unequal) cell sizes in MANOVA (Mardia, 1971; Olson, 1974). In this study, prudence warranted the recognition that multivariate statistical tests are not appropriate when one cell was essentially empty. Therefore, separate analyses of variance (ANOVA), followed by Sheffe's tests were chosen to determine significant differences among the remaining three groups.

## Results

The analyses of variance (ANOVAs) indicated that the effects of the suppliers' and customers' nationalities significantly affected the perceptions of the respondents for six of the variables. These differences are discussed below for each of the relevant variables.

### Dependence

The perceptions of the customers' dependence upon suppliers significantly differed,  $F(2, 466) = 3.56, p < .05$ . Sheffe's test indicated that Canadian customers perceived greater dependence on Canadian suppliers ( $M = 3.45$ ) than did U.S. customers on Canadian suppliers ( $M = 3.14$ ).

### Cooperation

Canadian customers perceived higher levels of cooperation from Canadian suppliers ( $M = 3.93$ ) than U.S. customers perceived from Canadian suppliers ( $M = 3.60$ ),  $F(2, 449) = 4.69, p < .01$ .

### Delivery

The groups of customers differed in their perceptions of the suppliers' delivery performance,  $F(2, 463) = 4.83, p < .01$ . Canadian customers rated Canadian suppliers significantly higher ( $M = 3.57$ ) than U.S. customers rated Canadian suppliers ( $M = 3.23$ ).

Furthermore, Canadian customers' ratings of Canadian suppliers were significantly higher than U.S. customers' ratings of U.S. suppliers ( $M = 3.29$ ).

### Joint Programs/Sharing

U.S. customers assessed higher levels of joint programs/sharing with Canadian suppliers ( $M = 2.40$ ) than did Canadian customers with Canadian suppliers ( $M = 1.91$ ). Canadian customers also indicated more sharing behaviors with U.S. suppliers than did U.S. customers with



U.S. suppliers ( $M = 2.08$ ),  $F(2, 454) = 7.74, p < .001$ .

### Quality

In the area of quality performance, Canadian customers rated Canadian suppliers' performance ( $M = 3.29$ ) higher than U.S. customers rated Canadian suppliers' performance ( $M = 3.04$ ) and higher than U.S. customers rated U.S. suppliers' performance ( $M = 3.11$ )  $F(2, 447) = 7.98, p < .001$ .

### Service

Canadian customers rated Canadian suppliers' service performance ( $M = 3.62$ ) significantly higher than U.S. customers rated U.S. suppliers' service performance ( $M = 3.26$ )  $F(2, 447) = 7.48, p < .001$ .

### Main Effects

No main effects based on national origin, other than those explained by the interactions, were found for any of the variables in this study.

## Discussion and Conclusions

The results of this study indicate differences in the perceptions of Canadian and U.S. customers of suppliers. One of the most clear cut and important of these findings is that Canadian customers differ significantly in how they view the cooperation between their firms and Canadian suppliers. In fact, Canadian customers view Canadian suppliers as more cooperative than U.S. customers view Canadian suppliers. Perceived cooperation between firms has been shown to be an important variable in determining the level of interactions between firms (Hill, 1990). Because such a large proportion of the Canadian exports are to the United States (Fraser, 1993), Canadian suppliers might investigate ways in which to improve their performance in the areas of negotiating contracts, working to overcome problems, and cooperating with their customers in the U.S.

Dependence is another area in which Canadian suppliers improve their overall relationships with U.S. customers. Researchers (Pfeffer and Salancik, 1978) have posited that the more dependent the partners in a strategic alliance are, the more likely they are to express positive feelings about each other. This finding indicates that U.S. customers are less likely to believe that their continued success is dependent on continued business with the supplier or that the supplier is a key ingredient in the customer's success. Although from this study we are not able to assess reasons for this finding, possible reasons may be related to the perceptions by U.S. firms that they experience lower levels of cooperation with Canadian firms, or perceptions that Canadian firms are less innovative technologically (Byrne, 1993).

Canadian customers rated Canadian suppliers' delivery performance higher than did U.S. customers. This is a curious finding because the relatively low population density and large land mass of Canada have been given as reasons for Canadian firms' relatively low performance in delivery (Inglis, 1992). On the other hand, Johnson et al. (1995) have shown that delivery is one of the key areas upon which Canadian executives intend to focus. Again in this case, U.S. customers are not particularly impressed with the delivery performance of U.S. suppliers, either.

A more disturbing finding indicates that Canadian customers rated Canadian suppliers' quality performance higher than did U.S. customers, although U.S. customers also rated U.S. suppliers at about the same level that they rated Canadian suppliers. At least to satisfy U.S. customers, Canadian suppliers should implement programs to improve product quality and overcome quality problems U.S. customers are apparently experiencing.

The joint actions/sharing factor indicated some surprising results. U.S. customers perceived more joint actions and technology/cost sharing behaviors with Canadian suppliers than Canadian customers perceived with Canadian suppliers. This finding may be attributable to the

technology transfer issues, with the differences in the sizes and foci of the technological bases in the two countries providing a climate for exchange. In support of this conclusion, U.S. customers don't perceive particularly high levels of exchange and joint actions with U.S. suppliers.

On some variables (e.g., quality, delivery), U.S. customers rated Canadian suppliers lower than Canadian customers rated Canadian suppliers, but U.S. customers also rated U.S. suppliers equally low. The issue arises of whether U.S. customers are more demanding of their suppliers, regardless of nationality, than are Canadian customers. The small number of Canadian customers of U.S. firms in our sample precludes a comparison to see if Canadian customers rated U.S. suppliers as high as they rate Canadian suppliers. When the sample for the Canadian customer-U.S. supplier cell is large enough, it may be possible to answer whether Canadian customers are less critical than U.S. customers. It is also possible that some effect, such as nationalism, is influencing Canadian customers' perceptions. Written comments returned with the survey indicated some business preferences for suppliers based on nationality and province.

Inglis (1993) has provided some possible causes for Canadian firms to still be lagging U.S. firms in some important areas. Canadian suppliers have implemented formal quality, logistics and service programs later than have U.S. suppliers. The A. T. Kearney study, from which Inglis (1993) made his conclusions, found Canadians lagging in almost all areas of logistics and manufacturing. Inglis (1995) has pointed out that Canadian firms have been late in implementation of improvement programs in these areas and the effects of these programs may not be apparent immediately. He predicted a number of improvements by 1995.

This study reported a mix of conclusions about the performance of Canadian suppliers. As an example, mean scores for manufacturing capabilities and costs do not differ by nationality of customer nor supplier in this study. We must assume that in these areas, Canadian suppliers

are now equivalent to U.S. suppliers. For joint venture/sharing behaviors, U.S. customers saw Canadian suppliers as more involved in these activities than they saw U.S. suppliers.

One caveat about the cost factor may be in order, Milner & Screenivasan (1995) have reported that the lower Canadian dollar has been a driving force in rising Canadian exports to the U.S. The lower Canadian dollar may be masking some cost differential between Canadian and U.S. suppliers. As is well known, the Canadian government is making efforts to limit public spending and debt, which may result in a rising Canadian dollar (Milner & Screenivasan, 1995). Canadian suppliers will do well to continue to focus on productivity improvements and cost controls given the massive export market U.S. customers represents (Fedchun, 1995).

Future research in this area should be directed toward assessing the perceptions of Canadian customers of U.S. suppliers. As noted above this combination was not well represented in the present sample. On a positive note, data collection is continuing for this study, with a sample of U.S. firms which do have Canadian customers.

A second future issue for research in this area should be related to the effects of feelings of nationalism on supplier selection. As mentioned above, a number of written comments from customers indicated that the suppliers were selected because of the nation or province in which they were located.

Finally, future survey research should follow the lead of this study by surveying customers of firms directly. Much of the survey research in this area has been directed toward assessing the opinions of senior executives or experts. We believe that a sample of customers represents the best group to assess the performance of supplying firms in the areas of quality, costs, and relationships.

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TABLE 1

SCALE ITEMS AND COEFFICIENT ALPHAS

**Cooperation** (Alpha = .92)

1. Relative to your other suppliers, rate this supplier's ability to reach contractual agreements.
2. How would you rate this supplier's willingness to cooperate with your firm.
3. To what extent does this supplier work to solve problems with your firm.
4. Rate this supplier on its willingness to cooperate with your firm.

**Interdependence** (Alpha = .89)

1. Retaining this supplier is important to my firm's competitive success.
2. I believe that this supplier's support is a key element of my firm's competitive advantage.
3. How important is this supplier to the overall success of your firm?
4. This supplier is one with whom it is important that we continue to do business with.

**Quality** (Alpha = .86)

1. This supplier's product is significantly higher in quality than its nearest competitor.
2. The quality of this supplier's product clearly exceeds the requirements of our firm.
3. We have quality problems with this supplier's product.\*
4. This supplier has superior quality programs.
5. Rate this supplier on its overall quality performance.



**Costs** (Alpha = .81)

1. This supplier's product provides a clear cost advantage for my firm.
2. This supplier is better than most suppliers when it comes to keeping the costs of ordering and billing down for my firm.
3. This supplier compares favorably to other suppliers when it comes to transportation/delivery costs.
4. Rate this supplier overall on their cost performance.

**Delivery** (Alpha = .94)

1. This supplier's delivery reliability is excellent.
2. This supplier is one of the most dependable in the industry when it comes to meeting delivery schedules.
3. The dependability of this supplier could be substantially improved.\*
4. Rate this supplier overall on its delivery performance.

**Service** (Alpha = .85)

1. When it comes to after-sale product service, this supplier is excellent.
2. This supplier could significantly improve its reponse to after- delivery product problems.\*
3. Rate this supplier overall on its after-sale product service.

**Investments** (Alpha = .78)

1. This supplier has made significant capital investments to win and keep my firm as a customer.
2. Much of this supplier's capacity is dedicated to supplying my firm.
3. My firm has invested a lot of money and time in helping this supplier to meet our needs.
4. My firm has many unique and special needs that this supplier has been required to meet.
5. This supplier has invested significant resources to tailor its products or processes to meeting our needs.

**Joint programs/Exchange:** (Alpha = .94)

1. How much has your firm involved itself in joint programs with this supplier in the area of quality improvement?
2. How much has your firm involved itself in joint programs with this supplier in the area of product development?
3. How much has your firm involved itself in joint programs with this supplier in the area of process development?
4. How frequently do your firm and this supplier share cost reduction methods and techniques?
5. How frequently do your firm and the supplier provide each other with product or process quality improvement suggestions?

**Manufacturing Capabilities** (Alpha = .93)

1. Rate this supplier's ability to produce state of the art products for your needs.
2. Rate this supplier's ability to develop and acquire the latest technology for your needs.
3. Rate this supplier's investments in product research and development.
4. Rate this supplier's investments in process research and development.



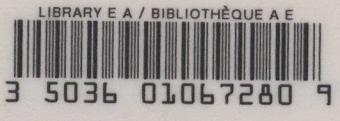


TABLE 2  
CORRELATION MATRIX FOR VARIABLES

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. HUM. RESOURCES	1.00									
2. DEPENDENCE	.33**	1.00								
3. JOINT ACTIONS	.12**	.15**	1.00							
4. DELIVER	.45**	.34**	-.10	1.00						
5. MANUFACTURING	.56**	.47**	.06	.45**	1.00					
6. QUALITY	.44**	.54**	-.01	.51**	.58**	1.00				
7. COOPERATION	.64**	.50**	.07	.61**	.59**	.57**	1.00			
8. COST	.36**	.54**	.03	.47**	.44**	.47**	.55**	1.00		
9. INVESTMENTS	.19**	.31**	.52**	-.04	.16**	.17**	.16**	.14	1.00	
10. SERVICE	.54**	.40**	.05	.55**	.50**	.46**	.65**	.42	.04	1.00
MEAN	3.53	3.40	2.13	3.37	3.43	3.19	3.76	3.19	2.74	3.39
STANDARD DEV.	.94	.94	.96	1.06	.85	.54	.96	.77	.91	.88

\* p < .05  
\*\* p < .01

Listwise Sample Size = 324

DOCS  
CA1 EA980 97C17 ENG  
Callahan, Thomas J  
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they differ and why that matters  
54038336

