

Tools and Joint Practices Used in Customer-Supplier Partnerships

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Abstract

The focus of this research is identifying tools and joint practices used in managing customer-supplier partnerships. By identifying tools and joint practices, this research tries to extend the body of knowledge on organizational upstream systems, especially on customer-supplier partnerships.

To do this, two research methods were used : mailed survey questionnaire and structured interviews¹⁾. The purpose of the mailed survey questionnaire used in this research was to collect quantitative data for statistical analysis. The survey (called *Customer-Supplier Relationship Survey*) was sent to 1,811 U.S. citizens who are responsible for managing one of purchasing (buying), sales/marketing (selling), quality-, operation-, or production-related functions of the following categories : (1) Industry type and ownership private manufacturing, (2) Geographic location U.S.- based, and (3) Industry scope SIC 35 [industrial equipment and machinery], 36 [electronic and electric equipment], and 37 [transportation equipment]. Of those 1,811 potential participants, 999 managers were obtained from the *Directory of Corporate Affiliations* (1996) and the remaining 812 were contacted through the American Society for Quality (ASQ) Customer-Supplier Division who are working in companies that are listed in SIC 35, 36, and 37 category.

For the structured interviews, companies meeting the same criteria U.S.-based private manufacturing companies in SIC 35, 36, and 37 were used. For both easy access due to geographic locations and high quality data, companies that have recently (1990-1996) won the Commonwealth of Virginia *Senate Productivity and Quality Award* (SPQA) in the Private Sector Manufacturing category and members of National Association for Purchasing Managers (NAPM) and ASQ in the Roanoke-

1) For more information on the full and final version mailed survey questionnaire and question items in the structured interviews, contact the author at sjung428@unitel.co.kr.

Radford section of Virginia, USA were used. The companies selected for the structured interview, especially SPQA winners, have been evaluated as effective in their upstream management practices because one of the decision criteria for the SPQA is *Customer and Supplier Involvement*.

After data collection and reliability and validity assessment of the mailed survey questionnaire using data collected, the following results were obtained from SAS²⁾:

- Average number of tools/joint practices used : = 9.1 ;
- Increase/decrease in organizational performance dimensions :

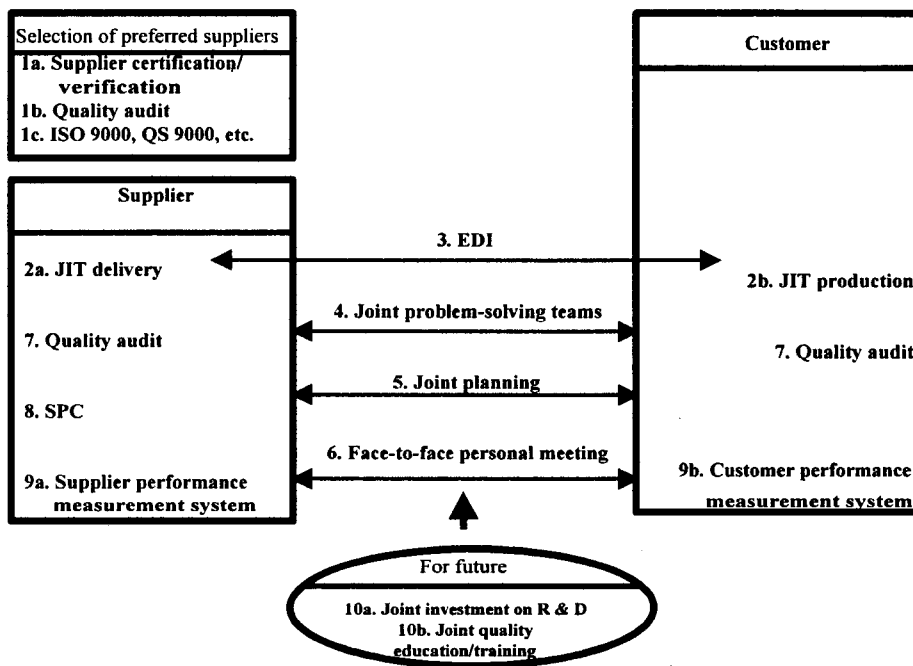
Performance Dimensions	Perceived improvements (in this research)	Objective improvements (from other studies)
Increase in quality	Customer : 31% Supplier : 28% Overall : 30%	Re-return rate : 14%, Overall filed return rate : 17%, No trouble found rate : 19%, Reduction in scrap rate : 21%, Reduction in q3s rework : 24%, Suppliers quality improvement : 26%
Decrease in cost	Customer : 24% Supplier : 18% Overall : 21%	Cost reduction : 11%, Reduction in drafting expense : 20%, Reduction in WIP inventory : 31%
Decrease in cycle time	Customer : 28% Supplier : 23% Overall : 26%	Lead time reduction : 29%

- The 5 most frequently used tools/joint practices : supplier certification/verification, joint problem-solving teams, quality audit, JIT delivery/production, and joint planning [SAS Frequency function] ;
- The 5 least frequently used tools/joint practices : quality circles, gainsharing, quality function deployment, joint investment on R&D, and in-plant representative [SAS Frequency function] ;
- The 5 most effective tools/joint practices : ISO 9000 and/or QS 9000 and/or Baldrige criteria, Quality audit, JIT delivery/production, Joint planning, and Joint problem-solving teams [SAS one-way ANOVA and Duncans multiple range test];
- The 5 least effective tools/joint practices : Quality function deployment, Gainsharing, Quality circles, Benchmarking, and Cost of quality [SAS one-way ANOVA and Duncans multiple range test] ;
- The 5 most internalized tools/joint practices : ISO 9000 and/or QS 9000 and/or Baldrige criteria, JIT delivery/production, Quality audit, Joint problem-solving teams, and Supplier or customer performance measurement systems [SAS one-way ANOVA and Duncans multiple range test] ; and

2) Some results were further divided by perspectives : customer and supplier. Some data shown here are combined results from the two perspectives.

- The 5 least internalized tools/joint practices : Cost of quality, Gainsharing, Quality circles, Benchmarking, and Quality function deployment [SAS one-way ANOVA and Duncans multiple range test].

The results and other significant findings are further analyzed using qualitative data from the structured interviews in order to reach conclusions and suggest a proposed model for a desirable customer-supplier partnership in terms of tools and joint practices shown below.



Model of Customer-Supplier JointAction