

Supplier Evaluations: Best Practices and Creating or Improving Your Own Evaluation

Valerie J. Stueland, A.P.P. – Supplier Manager
Wells Fargo Services Company
(602-378-7604); mcnamavj@WellsFargo.com

89th Annual International Supply Management Conference, April 2004

Abstract. In supply chain management, buyer-supplier relationships are critical to the success of the strategic goals of a company. In order for a buyer to keep track of these relationships and assess supplier performance an evaluation process must be in place. Supplier evaluation processes can be informal or formal, as you may have seen from past studies done in supply management; this study will focus on formal evaluation processes. Formal supplier performance evaluations can provide both objective and subjective rating of the buyer-supplier relationship. These evaluations can come in a variety of formats. If used correctly, these supplier evaluation matrices can become an important tool in determining the long-term success of a company.

Research Findings. Although research suggests that many companies do not use a formal supplier performance evaluation, the issue has been a concern of buyers since the early 1900s. Developing a formal supplier evaluation matrix from scratch can be a daunting task. For supplier evaluations to be successful, the process must have the backing and support of top management. According to many of the companies in this research, cross-functional teams played a large role in making sure that all aspects of the relationship were considered in the evaluation process. This report is to try to identify some of the best practices that are currently in use, and to look at taking supplier evaluations to the next step.

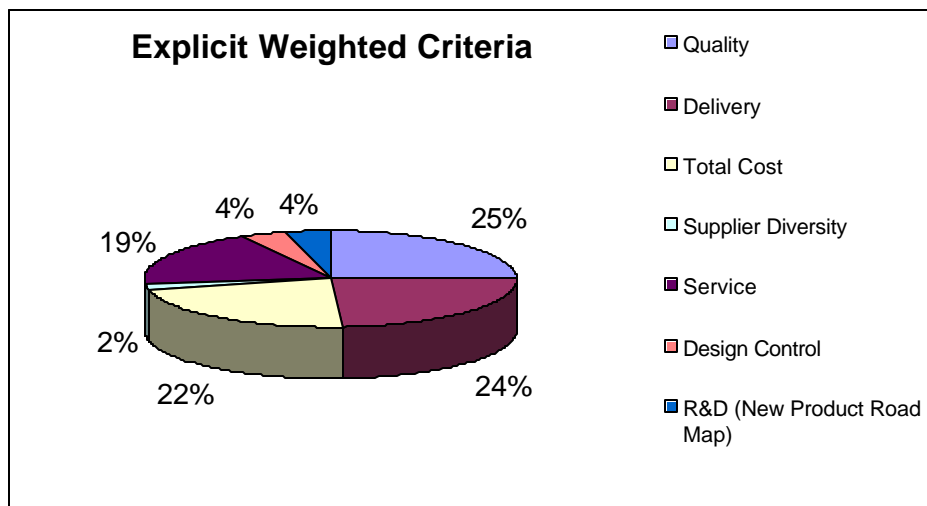
The goal is not to find the one perfect supplier evaluation matrix, probably because one does not exist, but to find the key elements of a successful supplier performance evaluation. The method used was to analyze a variety of supplier performance evaluations currently used in a variety of industries today. From there, the best practices were identified, and helpful hints were created for those currently trying to establish supplier performance evaluation matrices.

The study included companies from a variety of industries, including aerospace, agriculture, electronics, financial, household manufacturing, semiconductor, telecommunications, and utilities. Four primary areas were focused on while reviewing the supplier scorecards from the different companies. These areas are 1) Factors and Criteria; 2) Weighting; 3) Rating Scale; and 4) Ease of Use and Effectiveness in providing data for decision making.

Factors and Criteria. The first part of the study was to look to the supplier evaluations and find what factors and criteria were being evaluated. In every example both quality and delivery were always present. In the majority of the scorecards factors and criteria included total cost and service. Underneath the service factor was a plethora of options, included were service levels, support, and responsiveness. The level of subjectivity should also be considered when reviewing the factors and criteria to include in a supplier evaluation. Those definitions based on mathematical formulas seem to have little or no subjectivity; whereas, those with a nomenclature definition tend to be more subjective. Subjective wording that should be avoided, or at least limited include: attitude, demonstrates, ability, timely, innovative, use adequate,

generally, effectively, routinely, significantly, supplier commitment. These words may be necessary, but caution should be used when including these in the supplier scorecard in order to get consistent feedback.

Weighting. The majority of supplier evaluations, throughout the variety of industries include some form of weighting. The weighting scales include percentage per criterion and numerical values. Other forms of weighting that may not be extremely obvious can be based on the number of sub-categories under each criterion heading. For example, if there were seven measures that related to quality and only two that related to delivery, then we see that quality is weighted more than delivery in this evaluation matrix. Of the evaluation scorecards that had an explicit weighting scale, quality was the factor that received the most weight of the supplier evaluations scorecards overall. The chart below gives the total percentages for each category.



Rating Scale. The majority of the supplier evaluation scorecards use the Likert-type scale. R.A. Likert developed a scaling procedure in which the scale represents a bipolar continuum. The low end represents a negative response while the high end represents a positive response. On the other hand, some of the evaluations that used a Likert-type scale also use mathematical computations for their ratings. Of the evaluation scorecards that were reviewed, none of them provided a completely objective rating scale. The majority of the scorecards used both subjective and objective aspects. Of those evaluations with the Likert-type scale, the majority of them provided an odd-number of rating choices that majority of the time; for example, a score of one to five provides middle or neutral choice.

Ease of Use and Effectiveness. First we must assume (and this may be a large assumption in many companies) the buyer will have all the relevant data needed to fill out the supplier evaluation scorecard. The process of finding this data could take the buyer a great deal of time depending on whether the data gathering process is manual or electronic. But once the buyer is knowledgeable of all the pertinent data, it was documented that each page in the evaluation would take about five minutes to review and fill in; therefore, twelve pages would equal an hour. Looking at the sample evaluation scorecard, the majority could be completed within approximately one hour. About 30% of the scorecards would have taken over an hour to complete, even after all the data had been gathered. The maximum number of criteria

evaluated in one of the scorecard was sixteen, whereas the average number of criteria was seven. Another factor in the ease of use and effectiveness of a scorecard is the instructions. Approximately half of the evaluation scorecards provided instructions that would allow a new buyer to pick up the scorecard and evaluate any supplier. The other half was either very complex, or did not provide any type of instructions.

Conclusions. As we have seen, supplier evaluation scorecards are used in a variety of industries and are critical to a company's success, but there is no one way to create a scorecard. So what would be the best way to go about creating a scorecard, or improving your current process? Based on literature and the document analysis, quality, delivery, total cost and service are the core criteria that should be evaluated in the supplier matrix. Service is also starting to differentiate suppliers, and the literature shows that in the future, service is becoming amore critical aspect to be evaluated. The criteria should be well defined, and not subjective to the interpretation of the user or evaluator. In order to have consistency among buyer in an organization, subjectivity needs to be kept to a minimum. Supplier evaluations should rate the performance of all suppliers equally; therefore it is important the criteria be measured as objectively as possible.

There are two methods of weighting: implicit and explicit. The weighting factor should be as explicit as possible, meaning that it should be clearly and openly stated or defined, and not left to be understood. The explicit weighting is essential because it helps convey the importance of each criterion to the supplier. The explicit weighting scale also helps the buyers to understand the goals of the supplier evaluation. In terms of weighting each criterion, there is no clear answer which factor should receive the most emphasis. While the document analysis showed that quality, delivery and total cost should receive the most weight; this does not necessarily mean that it is appropriate for all industries. This weighting should be dependent upon the commodity, industry, spend and other factors.

The third factor we looked at was the supplier performance rating scale. After looking at the supplier evaluations, most used a Likert-type rating scale, in at least part of their evaluation. This is an adequate type of rating scare to use because it provides buyers predetermined parameters that are defined. This attempted to provide a more objective and less subjective style. None of the supplier evaluations had completely objective rating scales, but the majority provided both subject and objective, and tried to limit the amount of subjectivity. We also looked at the rating scale providing an odd versus even number of choices. By providing an odd number of rating choices, for example one to five, this gives the buyer the potential of choosing a middle ground, in this case the number three; it is human nature when unsure to select the middle ground, which does not provide the most accurate feedback. This does not apply if this is an objective scale, such as where mathematical formulas are used, but is critical to pay attention to when the rating is subjective. Giving the buyer the option to choose a middle ground does not portray whether the supplier needs improvement or is performing to the goals determined, since the goal of the evaluation scorecard is to evaluate the supplier's performance as accurately as possible.

The final area we looked at was ease of use and effectiveness. The goal is to make the evaluation scorecard as easy as possible without forgoing the effectiveness of the evaluation. There are three areas to look at for ease of use. The first is the length of time to complete the evaluation. The evaluation should not take more than an hour to complete (one the data has

been gathered) because buyers may rush through the process, fill out the data in accurately, or procrastinate, lowering the quality and consistency of the evaluation scorecard. The second area is the number of pages. This is not really the best indicator for ease of use, but helps us establish a guideline of five minutes per page in order to be effective. The third aspect was whether the evaluation had adequate instructions. One way of assisting with the creation of the instruction process is to give it to a third party to review. This will help with the issue of the instructions making sense to those who are not familiar with the evaluation scorecard process, especially a new buyer or internal customers who may be reviewing this information.

Recommendations for Creating your own Evaluation.

- 1) Find out what the short-term and long-term goals are of top management
- 2) Look at which suppliers and products you want to evaluate
- 3) Create a proposal that determines time, resources and scope of the project
- 4) Have top management assist in creating a cross-functional team (Suppliers should be included in this stage for maximum results)
- 5) Define the top criteria that you want to evaluate (Include the core criteria: Quality, Delivery, Total Cost and Services)
- 6) Determine the weighting for each criteria based on the goals of the company (Make sure that the weight is not influenced by the numbers of sub-categories)
- 7) Determine a rating scale (This part of the process may have to be edited several times in order to make the evaluation as objective as possible, provide an even number of choices to avoid middle of the road decisions)
- 8) Review instructions to make sure they are adequate (Have a third party review them)
- 9) Have buyers (outside of the cross-functional team) review the evaluation
- 10) Send evaluation to a third party for review (This will help with the ease of use and effectiveness of the evaluation, and is a great opportunity to Network with your ISM peers)
- 11) Revise evaluation as necessary

At this point you should have a functional supplier performance evaluation. Best of luck!

References.

Carr, A.S., and Pearson, J.N. (1999). Strategically managed buyer-supplier relationships and performance outcomes. *Journal of Operations Management*; 17, 497-519.

Carter, P.L., et al. (1998). The Future of Purchasing and Supply: A Five-and Ten-year Forecast. Center for Advanced Purchasing Studies: Focus Study.

Hayes, B.E. (1998). *Measuring Customer Satisfaction: Survey Design, Use, and Statistical Analysis Methods*. Milwaukee: ASQC.

Leenders, M.R. & Fearon, H.E. (1996). *Purchasing and Supply Management*. Chicago: Irwin.

Porter, A.M. (1999). Raising the Bar. *Purchasing Online*.
www.manufacturing.net/magazine/purchasing, Retrieved April 10, 2000.

Stanley, L.L. (1994). *An Empirical Study of the Link Between Buyer-Supplier Relationships and Purchasing Performance*. Tempe: Arizona State University.