
5 John Deere and Complex Parts, Inc.¹

On Friday, November 22, 2006, Blake Roberts, Hayley Marie, Stan Eakins and John Pearson, members of one of John Deere's supplier evaluation teams, were discussing the performance of Complex Parts. Complex Parts had provided questionable service to John Deere's Moline unit over the past year, and they were wondering if this merited giving their business to a different supplier. They needed to recommend a course of action to their project manager the next week.

Company Backgrounds

Deere & Company, headquartered in Moline, Illinois, was founded in 1837, and in 2007, they conducted business in over 110 countries and employed approximately 47,000 people worldwide. They are the world's leading manufacturer of farm and forestry equipment, and also produce construction, commercial and consumer equipment. Other products and services produced by Deere included equipment financing, power systems, special technologies and healthcare. Net sales in 2006 were over U.S. \$19 billion with total assets of more than U.S. \$34 billion. Cost of goods sold in 2006 was approximately U.S. \$15 billion.

Complex Parts, Inc. had been a supplier of John Deere for the past 10 years with annual sales to their Moline unit of approximately U.S. \$3.5 million. They supplied Deere with a key manufactured part requiring significant engineering input and testing. Two other Deere suppliers were capable of supplying this part; however, Complex Parts was providing all of Deere's needs at the time. They had always taken a proactive approach to their dealings with John Deere, with sales engineers visiting weekly, participating in Deere's cost reduction strategies, staying up with Deere's design changes, and internalizing the Deere Product Quality Plan. Complex Parts was interested in increasing their sales to Deere.

John Deere's Achieving Excellence Program

The Achieving Excellence Program (AEP) was a dynamic supply management strategy aimed at giving Deere and its suppliers the competitive advantage necessary to deliver world class equipment to customers. The AEP strived to develop long-lasting supplier relationships through use of a supplier evaluation process that promoted communication, trust, cooperation and continuous improvement. Suppliers were evaluated in five key areas by teams of Deere personnel from supply management, operations, quality engineering and product development. These evaluation areas were quality, delivery, cost management, wavelength, and technical support.

1. Reprinted with permission from the publisher, the Institute for Supply ManagementTM. "John Deere and Complex Parts, Inc." by Joel Wisner, PhD, C.P.M., University of Nevada, Las Vegas (joel.wisner@unlv.edu). This case was prepared solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author has disguised names and other identifying information to protect confidentiality.

The quality rating was a quantitative measure calculated as:

$$(\# \text{ rejects/unit of supplied product}) \times 1,000,000.$$

Thus, a quality rating of 1,000 would be equivalent to one reject per 1,000 units delivered. The delivery rating provided a measure of how well a supplier met Deere's specified delivery dates and purchase quantities. The delivery rating was calculated as:

$$[(\# \text{ early} + \text{late} + \text{over deliveries})/(\text{delivery instance})] \times 1,000,000.$$

Thus, a delivery rating of 75,000 would be equivalent to 75 delivery "defects" per 1,000 deliveries. The cost management rating was a composite rating derived by the evaluation team, based on performance in five areas: cost management initiative, cost reduction activity, cost index performance, performance during new programs, and global market competitiveness. A consensus cost management rating of 1 to 5 was eventually reached by the evaluation team. The wavelength rating was a composite analysis of the supplier's initiative, attitude, responsiveness, attention to detail, and communication performance. In general, good performance in this area meant the supplier was customer focused with a continuous commitment to improvement in quality, technical support, delivery, cost, lead time, inventory turnover and EDI capability. The technical support rating was also a 5-point consensus composite rating comprised of the group's assessment of the supplier's performance in the areas of assembly line support, design and process change information, manufacturing and design improvements, field problem resolution, test support, environmental responsibility, and supply management support.

Recognition of supplier performance was an integral part of Deere's AEP. Suppliers were classified as Conditional, Approved, Key or Partner, based on their overall performance in the five rating categories (although the weakest category tended to heavily influence the overall evaluation). These classifications, with their required performance levels for each rating category, are shown in Exhibit 1. Performance-level cutoffs were revised annually by Deere. Suppliers were given a Supplier Performance Summary each quarter, providing suppliers with their performance information as well as the cutoff information. Conditional suppliers did not receive any formal recognition or training from Deere, and were in danger of losing future Deere business. Approved suppliers were eligible to participate in Deere training programs. Key suppliers received a special Deere plaque and training benefits, while Partners received the training benefits and were also honored at a Deere awards banquet.

Complex Parts' Performance Information

Complex Parts had achieved a quality rating of 666 for the past year, and a delivery rating of 8650. Blake Roberts, the strategic member of the evaluation team with eight years experience as a Deere buyer, thought some of Complex Parts' subjective category performances were showing signs of weakness. For instance, he thought they should be making more suggestions for cost reductions and eliminating more of the problems that had resulted in a number of late deliveries over the past year. Some requested price quotes had also not reached Deere on time. They had been doing a good job, though, of following through on suggestions for quality improvement offered by Deere. He considered their business approach with Deere to be very proactive.

Hayley Marie, a manufacturing planner for 23 years with Deere, was in charge of the team's technical evaluation. Hayley noted that Complex Parts had taken an active role in

Exhibit 1		Supplier Classification Criteria			
	Quality	Delivery	Wavelength	Technical	Cost Mgt.
Partner	<1000	<30,000	>4.6	>4.6	>4.6
Key	<2500	<80,000	>4.0	>4.0	>4.0
Approved	<5000	<150,000	>3.0	>3.0	>3.0
Conditional	5000+	150,000+	<3.0	<3.0	<3.0

keeping up with Deere’s required specification changes, but was very concerned with their frequent inability to return phone calls to Complex Parts’ customer service group. An increasing number of deliveries had to be expedited over the past year, costing Deere in the process. It seemed as though expediting had recently become a weekly requirement. Over the past quarter, their delivery rating was a dismal 155,000.

Stan Eakins, the team’s quality advisor, had been a quality engineer for Deere for over 20 years. He thought Complex Parts had done an excellent job internalizing the Deere Quality Plan elements, and took a lead role in getting the elements implemented. Their quality performance had improved significantly over the past year. Recently, they had also become ISO certified. The one area of concern noted by Greg was that they had fallen behind in implementing the Deere Quality Plan at their new facility, which had been operational since June. This was beginning to concern him.

John Pearson was the assessment team’s design/engineering advisor and had been an engineer at Deere for 12 years. He was impressed with Complex Parts’ R&D department, noting that several suggestions from them had resulted in successful Deere, new product programs. Unfortunately, though, a number of the items supplied by Complex Parts for these products had not met Deere’s cost targets, effectively reducing Deere’s projected profits on these products. There had also been a troubling problem over this past quarter, getting quotes for some of these new parts in a timely fashion.

Conclusion

The team was faced with evaluating a long-term supplier for Deere who was performing impressively in several areas. Unfortunately, there were also some areas of concern in the minds of all four members of the evaluation team. Reaching a consensus was going to require all of the team members to be very thorough in their evaluations of Complex Parts. The evaluation group had to reach a consensus quickly to meet the required deadline of their project manager.

Discussion Questions

1. Discuss the strengths and weaknesses of John Deere’s Achieving Excellence Program. Consider and discuss other criteria to include in the analysis.

2. Do you think Complex Parts has performed adequately over the past year? Why or why not? Which of the Deere supplier assessment classifications should be assigned to Complex Parts?
3. If you were a member of the supplier evaluation team, what alternative courses of action would you consider for Complex Parts? What recommendation should the team make to the project manager?
4. What are the short-term and long-term implications of your recommendation?