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Studies in Management and Accounting for the

FOREST PRODUCTS INDUSTRIES

Improving Productivity Through Internal Contracting

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INTRODUCTION

The Northwest forest products industry has been under severe economic pressure for the past several years. Many Northwest forest products companies have gone out of business entirely and others have closed portions of their operations. This monograph describes how one company has instituted a productivity improvement program to reduce its cost of operations in a particular area. ITT Rayonier was faced with converting from a unionized employee work force to less costly contract vendors. Instead it developed an internal contracting system that has proven to be an effective approach to reducing costs with company employees even as the company's volume of business has increased. The employees have also benefitted from this plan by retaining their jobs plus gaining bonus opportunities related to the cost savings. Both the company and employees have benefitted from the maintenance of a good relationship between the company and the employees' union, and both parties have benefitted from the improvements in workers' morale. ITT Rayonier calls this program of internal contracting "The POD System."

COMPANY BACKGROUND

ITT, a multi-billion dollar conglomerate, operates in a variety of industries and locations worldwide. The forest products operations of ITT are known as ITT Rayonier and are located in both the Southeastern United States and the Northwestern United States. The Northwest Forest Operations (NWFO) is the subject of this monograph and it is responsible for forest management activities and the harvest of timber on the Olympic Peninsula of Washington, primarily for the export market.

In this capacity, NWFO employees are involved in logging and yarding, hauling logs to a sort yard or other intermediate storage point, and sorting and shipping the logs for export, primarily on ocean-going ships.

Support functions include shop operations, construction operations and a stores operation. The shop repairs and maintains trucks and equipment for forest and yard operations. Construction operations are primarily road construction, and the stores operation provides supplies for all of the various functions.

NWFO has three primary locations. These consist of a corporate office in Seattle, Washington and two operating locations, one in Port Angeles, on the northern coast of the Olympic Peninsula and one at Hoquiam, on the southern coast of the Olympic Peninsula. NWFO has approximately 300 employees, including supervisory staff, and a unionized nonsupervisory work force. In addition, the Company hires contractors who employ another 700 people.

In 1981, NWFO found that it was experiencing unacceptably high logging costs as compared to the cost that the company estimated it would incur if it used independent contractors for logging operations. The company estimated that its annual internal logging costs were as much as \$4.5 million more than if all logging had been done by outside vendors. This situation led NWFO to devise a way to reduce internal logging costs to a

level that matched that of outside vendors in order to avoid termination of all company logging.

The company was aware of some organizational techniques used by Crown Zellerbach in its logging operations that had significantly improved logging productivity. ITT Rayonier's early experimentation with this approach for logging led to a comprehensive use of this system for all of the above described operations of NWFO. The next section defines a POD and describes the basic rules of "The POD System."

THE POD SYSTEM

A POD is a work group that operates nearly independently and receives payments based on that POD's revenues generated and costs incurred. The POD system is used in all of the operating areas at NWFO. The company's objective in instituting the POD system was to reduce operating costs to the level that would be incurred if all operations were run by contractors. It was expected that this would not only reduce the direct costs of specific operations, e.g., logging, but would also reduce overhead costs through a reduction in required supervision.

Basic Rules

1. A POD has a right of first refusal on Company work contracts.

Although developed and implemented in stages, the current POD system gives the company PODs the right of refusal to undertake a work contract not covered by an agreement with an independent contractor, at a contractor equivalent rate, where company equipment and supervision are available and PODs can perform the work. For a logging POD this would involve cutting a specific stand of timber; for a trucking POD it would be hauling the logs; and so on. Company management sets these rates based on rates for similar contracts. These rates are expressed in appropriate units such as per unit of weight or per load received.

If a POD accepts the price, a contract is signed and the POD will generate revenue based on the bid rate and the actual output produced by the POD. If a bid is not accepted by one of the PODs, the work is given to an outside bidder, or the rate can be revised by the company until a POD will agree to a contract.

In reviewing a potential contract at a stated rate, the POD must consider the amount of potential payment as if it were gross revenue for an independent contractor. That is, the POD will also be responsible for any costs that an independent contractor would be expected to bear.

2. Union agreements are maintained.

The POD agreement was developed cooperatively by management, workers, and the unions. This cooperation has been a key factor in the success of the plan. Union seniority and bumping rules have been retained for POD members. In addition, while working on a POD contract, individual workers receive regular wage draws based on the negotiated union rates. The actual contract settlement payment to a POD is made after expenses are calculated for wage draws and other POD costs.

3. Contract settlements.

Contract settlements are made on a monthly basis. The agreed contract rate is multiplied by the actual period output of the specific POD. This encourages maximum POD production. Wage draws are subtracted from the POD's earned revenue. Other costs that would normally be covered by an independent contractor are also subtracted.

The PODs use company owned equipment, and are charged a monthly fee based on economic depreciation. This is based on a percentage of the market value of the equipment used. Since the equipment is company owned, in addition to the equipment fee PODs are charged imputed interest on the capital invested in the equipment. PODs are also responsible for equipment maintenance. They are charged for any work done by the shop--which is itself a POD. Work crews often do their own maintenance to minimize the maintenance charge.

Like an independent contractor, a POD is responsible for payroll costs and fringe benefits. That is, costs are calculated for employee taxes including employer contributions, and for vacations, holidays and insurance.

Administrative charges are computed for direct POD administrative staff, e.g., the POD Accountant, and POD Operating Committee Supervisor. Overall the Company has reduced by 50% the administrative personnel involved with NWFO operations. The remaining portion of administrative cost is included in the administrative fee paid by the PODs.

Other costs charged to the PODs before settlement include: fuel, supplies, accident insurance, and catastrophic insurance. Finally, all PODs are charged for safety personnel costs as well as for safety losses.

The revenue and cost factors affecting the POD contract settlement are summarized in Exhibit 1.

In most cases POD settlements show an excess of revenue over costs ("profit") that is distributed among POD members based on the number of hours worked by each individual. If a settlement shows a negative amount this figure is accumulated for later recovery from profitable contracts. PODs that are not eventually profitable are not continued.

EXHIBIT 1

POD CONTRACT SETTLEMENT

POD Revenue = Contract Rate X Actual Production

Less Expenses:

Wage Draws

Economic Depreciation of Equipment

Equipment Maintenance

Payroll Costs

Fringe Benefits (vacation, holidays, etc.)

POD Administration

Imputed Interest on Equipment Investment

Accident Insurance

Catastrophic Insurance

Safety Personnel

Safety Losses

Other (fuel, supplies, etc.)

Total POD Expenses

Contract Profit (Deficit)

NOTE:

- Contract deficits are accumulated.
 - Contract profits offset any previous accumulated deficits and the remainder are paid in bonus pay.
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4. Safety is not compromised.

ITT Rayonier has explicitly maintained safety as a company objective. To assure that safety standards are met the company manages the safety personnel and sets the minimum requirements that PODs must meet. This policy avoids the potential problem of individual PODs seeking to cut their costs by overlooking safety.

5. Operations Committee manages the system.

Ongoing administration, interpretation and revision of the POD agreement is done by an Operations Committee. This Committee includes management and POD representatives. It meets routinely to resolve issues associated with the POD agreement and to guide the agreement as it continues to evolve. Issues that have come before the Committee include whether or not PODs should own equipment and how PODs in a deficit position should be handled.

Specific Application

For falling, bucking, yarding, loading, trucking, log yard operations and construction operations, the POD system is operated according to the basic rules described above. In the case of trucking, each individual trucker is a POD. In all other areas, crews of employees are PODs. The contract rates are based on prevailing contractor rates for the various activities. Rates are based on units of output which vary with the activity involved:

- Logging activities (per thousand pounds)
- Hauling logs (per thousand pounds)
- Yard operations (per load received)
- Crushing rock (per ton)
- Laying road foundation or grading (per station)
- Etc.

The stores and shop PODs are run a little differently. These operate as if they were independent businesses, pricing their products and services in competition with other retail outlets and machine shops. Company PODs have the option of using the POD stores and shop, or using a non-company source for supplies and repair work. If the shop or stores earn more than its cost of operation, the "profit" is distributed to the shop and stores POD members, just as it is for logging POD members.

Information Systems Support

NWFO anticipated that POD internal contracting would require extensive data support in the areas of payroll, equipment charges, shop charges, stores charges and maintenance charges. Although plans were made to computerize all of these information requirements, ultimately payroll was the only one automated. The existing computerized payroll system was modified to handle employee draws and POD settlements. In effect, the original payroll system has become an accounts payable/receivable system for the company. It keeps track of the amount employees are drawing against future settlements. It also provides information to help calculate the settlements, which are then paid through the payroll system.

All other information requirements are either handled manually or are semi-automated on personal computer spread sheets. These include:

- Processing charges for company equipment that the PODs are using, such as logging equipment or trucks.
- Processing charges for shop work and calculation of the shop profit and loss.
- Processing stores charges for supplies purchased by the PODs and stores profit and loss.
- Processing charges to PODs for their share of the maintenance costs.
- Allocating the administrative costs of the system.

Results and Benefits

Prior to the implementation of the POD system, NWFO had estimated it was costing an extra \$4.5 million per year to utilize its own logging employees rather than independent contractors. The POD contract system has substantially reduced this differential. This has amounted to a 20% reduction in cutting costs for company operations.

The company has maintained a good relationship with the workers' union. A key part of this has been the maintaining of wage draws that are based on union scales that were agreed to in the collective bargaining agreement. The PODs, however, are self-managed in terms of how their contracts are accomplished. This includes determining the number of workers in a POD. As a result the PODs have regulated their own sizes so that the amount of the base draw does not preclude the POD from earning a net profit. Union bumping and seniority rules have been maintained, but POD sovereignty has also resulted in peer requirements that workers carry their own weight. PODs do not have to accept assigned workers.

The cost reductions have been directly related to productivity increases. At the same time as the number of employees per POD has decreased, the production per POD has dramatically increased. One of the divisions reported that a logging POD now generates 20 or more truck loads of wood per day compared to 8 or 9 loads per day under the old system. It is this increase in productivity that has resulted in substantial reduction in cost of company logging.

Employees are now motivated to take better care of equipment in order to hold down settlement maintenance costs. The maintenance shop, a POD itself, has also had to offer competitive maintenance rates in order to get the business of other company PODs. As a result total shop costs have decreased substantially. In fact, one district shop now has 10 employees instead of the 38 employees it had before the POD system. This is primarily due to POD crews holding down costs by doing more of the routine maintenance themselves.

The road construction PODs have cut their costs by 20%. The company now uses fewer outside contractors in this area because of the efficiency of its own construction PODs.

There have also been transportation cost savings. Previously, the company used buses to transport workers to and from the work sites. PODs are now responsible for their own transportation. They can rent vehicles from the company for this purpose, but most PODs have chosen to reduce their costs by using POD members' private cars.

Prior to the POD System ITT Rayonier had approximately 400 logging employees in its NWFO. Currently the company has about 200 logging employees in this area. It should be noted that the employees who left the company did so of their own volition and received a termination payment from the company based on a union agreement. The reduction of work force has occurred even though the total volume of production has increased.

ITT Rayonier's reduction in employees has also included a reduction in supervision requirements. For example, in one of the two NWFO logging divisions about half of the supervisory positions were eliminated including: Production Manager, Cutting Supervisor, Yarding and Loading Supervisor, Yard Foreman and Shop Foreman. The other logging division had a similar proportional reduction in supervision. The net result is that not only have the direct logging operation costs been cut to contractor-equivalent amounts, but also administrative overhead has been significantly reduced as well.

One of the major results of the POD system has been the emergence of a team attitude among employees, union, and management. This is reflected in the functioning of the POD Operations Committee, where members of all three groups work together to maintain the system and address any problems that do occur.

The cooperative relationship between employees and management is also reflected in the nature of supervisor - POD interaction. Supervisors now act as advisors rather than bosses. They will consult with PODs and make suggestions, but the PODs have the freedom to make their own decisions about accepting and fulfilling contracts. The day-to-day decisions are POD decisions. This self-supervision and decision making authority is something POD members feel is an advantage of the new system and they say that this feature has increased their interest in their work. Discussing this aspect of PODs, one POD member stated, "Our crew has changed a lot. We're putting a lot more into it." Another said, "It's better than someone telling you what to do. We know what to do." The PODs take the responsibility to look for ways to be more productive and to cut costs. It is to their advantage to do this because of the settlement bonus feature. Workers now arrive early and stay late on a job if that will reduce their transportation or set-up cost or allow them to discuss and set out the day's work plan. This was never the case when the employees were on a fixed hourly wage. Cost consciousness is also reflected in the salvaging of equipment such as the good portions of logging cables that are worn in specific spots.

Overall the POD system has been very successful for ITT Rayonier and its employees. The company has continued to operate its NWFO with a combination of employees and contractors, while both increasing output and decreasing costs. The workers are proud of the success of their PODs. Those who chose to stay with the company have improved their economic status through their increased productivity, and they clearly enjoy the greater freedom offered by the POD system working conditions.

We should note that neither the authors, Oregon State University nor Arthur Andersen & Co. were involved in the formulation of the POD contracting program. The POD system was developed as a negotiated agreement between ITT Rayonier and its employees' union.

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3. "A Decision Framework for Trading Lumber Futures," issued in October 1975.
4. "Capital Gains Tax Treatment in the Forest Products Industries," issued June 1976.
5. "Measurement Difficulties in the Log Conversion Process," issued June 1976.
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