Studies in Management and Accounting for the
FOREST
PRODUCTS
INDUSTRIES

Boise Cascade’s Productivity Improvement Program
by Robert Stolz
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I. Introduction

It is obvious to anyone who reads about or buys anything in the United States that we have a productivity problem. Losing our share of world markets, runaway inflation, high interest and unemployment rates are just a few of the symptoms. At Boise Cascade, we are very concerned about our nation; but it is also in our own best interests to become more productive, and we decided to mount a major productivity improvement effort. By doing so, we will have a competitive edge which will benefit our employees, our stockholders, our customers and the communities we operate in. This report is written to trace the evolution of our corporate productivity improvement plans and then to describe our current status in hopes that it might prove of interest.

II. Chronological History of the Program

A. 1978

1. We formed a Corporate Productivity Improvement Task Force to meet quarterly. The subjects discussed at the meeting are informative; the task force does not check the progress of productivity or implement any plans. Rather, its purpose is to keep its members informed about what is taking place in productivity within our company, in other companies, throughout the nation and in the world.

Recent agendas have included: (1) innovative measurement methods, (2) Productivity Focus (described in Appendix), (3) analysis of Japanese productivity, (4) essential programs necessary to support employee involvement efforts, (5) what other companies are doing in employee involvement to increase productivity and (6) reports on various national and international conferences on productivity. This task force is chaired by the president of the Company and is composed of the eight senior executives of Boise Cascade and the director of Productivity Services.

2. One of the four major operating groups of Boise Cascade had already formed a productivity task force prior to the formation of the corporate one.

3. During this period of time, Boise Cascade contributed money to the formation of the American Productivity Center (described in Appendix) and loaned an executive to them. These loaned executives are called associates by the American Productivity Center.

B. 1979

1. The Corporate Productivity Task Force decided to use the American Productivity Center as a springboard for their productivity improvement efforts. They sent a second associate down to Houston with instructions to coordinate and involve APC with Boise Cascade’s productivity efforts. This started by having APC put on a major presentation to raise the level of awareness of productivity in the Corporate Productivity Task Force.

2. The other three major operating groups each formed productivity task forces whose function is to decide upon and implement specific programs which are going to take place in their groups and divisions. They also track productivity results.

3. Boise Cascade and APC, working together, put on an awareness program for each of the separate task forces and some staff groups using a program called “Productivity Focus” as a basis for their presentation. (Described in Appendix.)

4. The various operating groups and divisions started productivity improvement programs, including such things as Productivity Focus, employee involvement, supervisory training, quality-of-work-life programs and productivity measurements.

C. 1980

1. The associate at the American Productivity Center returned to Boise Cascade and was named director of Productivity Services. His job description calls for “acting as a resource for productivity improvement at Boise Cascade and developing programs to exploit opportunities/solve problems in productivity.” He reports to the president of the Company. More specifically, he will:
• Provide resources and guidance in building measurement systems (number-one priority). This will be emphasized during the rest of the monograph.

• Be a communicator/catalyst to gather and disseminate productivity improvement ideas — a techniques and ideas bank.

• Organize and/or work with each group and staff function productivity task force.

• Coordinate efforts with staff functions such as Human Resources and Communication, whose work interfaces with productivity.

• Work with any officer of the Corporation who has special need for productivity expertise.

III. Employee Involvement

Beginning in 1981, the Corporate Productivity Task Force decided to emphasize employee involvement. We discussed the basic people programs which we had in place in the Company to see how they contributed to, or interfered with, our involvement of employees in our productivity plans. We wanted to increase our efforts where appropriate and add new ones if this was needed. At the same time, we decided that each of our senior executives would visit some corporation in the United States which was in the forefront of employee involvement. Seven visits took place, and the report on these visits was the subject of a corporate task force meeting. The director of Productivity Services visited Japan for this same purpose.

IV Operating Group Productivity Task Forces

Each of our operating groups has a task force which meets quarterly. Listed below is some of the work taking place in each of the four groups. The list is not all-inclusive or in detail.

A. Group 1

1. There are four of the major locations in this group which have quality-of-work-life programs.

2. A decision was made to flatten out the organizational structure within these installations and remove at least one layer of supervision. This will give additional responsibility to the front-line supervisors and bring production employees in closer contact with managers.

3. A major supervisory training effort, stressing communications and conference leadership skills, is taking place.

4. A general manager team was formed to help write a group philosophy concerning people involvement.

5. A task team was formed and a training program started on a major “quality circle” program.

6. This group has an annual business plan which is communicated to every employee in the group at meetings held across the country.

B. Group 2 — This group has a full-time productivity manager.

1. This group’s plants have complete engineered labor standards in place. A lot of work is taking place in measuring white-collar, energy and material productivity.

Each plant in the three divisions has a daily labor productivity report. These cover all of the hourly employees in manufacturing in these operations. The reports are calculated to compare actual performance against engineered standards. These standards cover each crew on each machine on each shift. The standards are comparable plant to plant in each division but are adjusted to different machine speeds, peripheral equipment, layout and crew size. There are also standards for each support function such as maintenance, materials handling and shipping. The reports come out daily and contain month-to-date numbers also. Supervisors feed back the results from the previous day to individuals and crews. Praise and positive reinforcement are used for good performance, and problem solving is used where results were not good. Low performance is a signal for management action. These programs have been an important factor in increasing productivity significantly in this group.

Longer-term results are used in our performance planning and review process with all salaried production management. Goals and results against these goals are used for promotional and financial reward purposes. They are also used for strategizing corrective action. Some plants use this same perform-
ance plan and review process with hourly production workers as well as their salaried people.

One division has an engineered waste program which was built and is used exactly like the labor productivity measure; performance by department and shift and cause is calculated daily and fed back to production employees.

Energy consumption per production unit is measured daily, but no standards have been built. Daily energy productivity fluctuates widely depending upon a number of random variables; therefore, energy is just tracked historically. We regularly have energy audits in our plants, and energy consumption has come down very well. With the rapid escalation of energy costs, however, we may find it advisable to try setting engineered standards for energy.

One division now has an administrative measurement system in all of its plants. These measures were set by a group of people selected from various levels and from plants of different sizes, geographies and product mixes. The nominal group technique (described in Appendix) was used; several one and a half-day meetings were held; trials run; and the program was "debugged." It was placed in full operation throughout the division recently and was well received.

The other two divisions in this group are in the prototype stage in the measuring of administrative productivity. One division has set a target date to start building a measurement system for production supervision on a similar basis to the one for administration.

2. Three major training programs are taking place—Interaction Management, Productivity Payoff and Kepner-Tregoe (described in Appendix.)

3. A number of quality-of-work-life projects have just started, some of them involving quality circle teams. One of the divisions is starting off with white-collar quality circles in the division headquarters.

4. A decision has been made and is being implemented to form individual productivity task forces in each of the three divisions in this group.

C. Group 3

1. This group has decided that a major communications thrust is appropriate in order to build a better management/labor climate, and this is underway. It involves a full-time communications person, crew meetings, newsletters, attitude survey and feedback of the results, etc.

2. In this industry, there are no good, sensitive daily labor measurement programs being used. Therefore, Boise Cascade is pioneering some productivity measures which will cover every operation in this group. APC helped with the original concept of this program.

D. Group 4

1. Group 4 is basically in the distribution business at both the wholesale and retail levels. We have set measures which will cover the vast majority of the employees, and these measures are being tested and/or installed across the country now — in some 130 locations. These measure the following functions: warehousing, shipping, consumer sales, contractor sales and administration (administration includes things like phone sales, accounting, purchasing, management, etc.). The measures were set by teams of people from the groups and divisions themselves. The results are reported monthly, and comparison between operations is very useful. The poorer performers can "go to school" on their higher-performing sister operations. Of course, each operation can also trace its productivity improvement historically against itself.

2. A productivity training program for managers for the better utilization of people has been developed and is being installed.

E. At the corporate staff level, emphasis has been placed on developing productivity measures, working on employee attitude surveys and investigating the "electronic office." In Boise, measurements are being established for service departments such as Legal, Shareholder Services, Word Processing and Corporate Date Processing Services. These measures were set by a group of people from these operations, from various levels and expertises, using the nominal group technique. They are designed to
assist managers to improve productivity in their departments.

F. In mid-1981, a group was formed composed of seven people with productivity responsibilities in operating groups and corporate staff operations. It is chaired by the director of Productivity Services. Its initial function is the interchange and dissemination of productivity improvement ideas and techniques in use or known about within the Company. Two meetings have been held, and more are planned.

V. Overall Corporate Productivity Measure

The Corporation uses an overall measure of sales per employee. This measure is used to trend the productivity of each individual group and division historically and is rolled up into an overall corporate measure. It is a fairly broad measure but is useful to track productivity trends.

Sales of the various divisions are inflation-adjusted to the base year 1976. Some divisions use their own sales price increases as a deflator; and, where this information is not available, national indexes are used.

Employees might be called full-time equivalent employees. That is, we use our payroll statistics but adjust them by removing people who are on leaves or layoffs and adjusting both overtime and part-time employees to a full-time equivalent.

The results are reported quarterly in two different ways. There is one set of graphs which shows the annual productivity trends from 1976. A second set of graphs (and tables showing the actual numbers) displays quarterly results for the last nine quarters. This latter measure is more sensitive and takes into consideration factors such as seasonality.

Again, it should be emphasized that this is not an exact measure; but, with inflation adjusted sales being a surrogate for physical production, it is truly a valuable measurement tool.

VI. Summary

We believe that Boise Cascade has developed a productivity improvement organization which is fully operational. It has the enthusiastic backing of top management. The efforts to date seem headed in the right direction. However, we realize this cannot be a “quick fix”; ultimately, it must move out of the program stage and become a way of life. It will take time, continued management effort and money.

APPENDIX

I. American Productivity Center (APC) is a non-profit productivity organization in Houston. It is partially supported by donations (the forest products industry is the second largest industry giver to APC), is nonpartisan (union, academia, and government as well as industry are represented on the board of directors), and has about 100 employees and a $5 million annual budget.

II. Interaction Management — This is a training program for raising the interpersonal skills of supervisors. The consulting firm is Development Dimensions International, and this program is used extensively at Boise Cascade.

III. Kepner-Tregoe is a problem-solving skills training program for managers. They also have a decision-making training program.

IV. Productivity Focus — This is an APC analytical tool for examining an operation’s productivity, breaking it down into the seven essential elements of a good improvement program:

A. Utilization of assets
B. Establishing improvement goals
C. Rewards and recognition
D. Awareness and promotion
E. Measurement and analysis
F. Employee participation
G. Leadership and organization

V. Productivity Payoff — This is a first-line supervisory training program which was a joint development between APC and General Motors. Its purpose is increasing awareness of the need for productivity improvement and teaching a simple methodology for developing action steps.

VI. The nominal group technique is a special type of meeting for problem solving or measurement generating. It stimulates creative thinking and uses group wisdom in a very structured setting. The leader of the group is an outsider. The steps which the group takes include silent generation for ideas, a round robin to make these ideas visible, a section devoted to editing and discussing the various ideas and, finally, voting to choose the best ones. Further steps can include refining the measures further, scheduling trials, reviewing results and revising the measures.
Monographs published to date:

"The Rush to LIFO: Is it Always Good for Wood Products Firms?" issued in December 1974 and published in condensed form in the April 1975 issue of Forest Industries. This monograph was revised and reissued in January 1976.


"Log Inventory Controls," issued April 1981.

Studies in Management and Accounting for the Forest Products Industries

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