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Growth is good but it must be a meticulously planned growth that overlooks no contingencies. Otherwise a company is likely to find itself in the unhappy position of the Durard Company—

A BACKWARD LOOK AT FORWARD PLANNING

by Thomas S. Dudick Ernst & Ernst

W HEN sound business policies are subordinated to rapid growth, profits suffer and liquidation of past gains is the inevitable result. This article describes a pattern that has been typical for many companies and it recommends a set of guidelines for orderly growth in the form of ten commandments for expansion.

The desire of management for bigness can be the by-product of a desire for a place in the sun. The bigger the company, the more important the executives of that company become in the business community. Bigness, in this case, is a matter of pride coupled with aggressiveness and ambition.

The need for bigness can also

be ordained by the forces of competition, which are continually squeezing out the marginal producer who does not have the resources to keep up with the growth of technology.

Whichever of these two factors provides the motivation for growth, the desired end product is a volume that results in higher profits through reduced unit costs of production.

High volume, when it results in longer runs, can result in reduced unit costs for such direct costs as material and direct labor.

Raw material needs, for example, become smaller per unit because scrap losses due to rejections do not increase proportionately with the increase in volume. The momentum of a long run tends to stabilize quality with the result that rejections become an increasingly smaller percentage of the total quantity of production.

Direct labor costs per unit also decrease because higher volume runs permit improvements in production methods. The part that was previously hand-soldered or hand-welded might now justify tooling up for automation and "conveyorizing." Subassemblies can be made on separate lines that feed into the main line at the appropriate point.

Also, because longer runs permit many of the operations to be broken down into simpler steps, manual dexterity becomes more important than high labor skills. Labor rates can then be reduced accordingly.

Many profit-conscious managements recognize the importance of volume as a contributor to lower unit costs and greater profits. Accordingly, they seek to expand through purchase of other companies in a similar business and through expansion from within.

But there is an obverse side to this, too. Many companies in pursuit of the obvious advantages of size, both in operating economy and prestige, have pursued it while neglecting the most common warnings of good business sense. Penn Central Railroad, which achieved giant corporate size by merging two transportation companies with entirely different methods, operating philosophies, and even computer systems, is only the most prominent recent example. There are others, less publicized but equally disastrous.

Growth is good, yes, but only if it is a balanced growth. If it is just a reckless striving for size, without regard for other factors compatibility, staff abilities, eventual goals—then it can become a disaster. Consider, for example, the Durard Company.

The Durard Plastics Company's products consist of plastic molding, metal stamping, and related hand assembly operations. The product line includes such items as push buttons for radios, plastic knobs for appliances, plastic bottles with caps, electric shaver parts, small radio cabinets, and a variety of metal parts used in the appliance industry.

The management of this com-



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Prentice-Hall, plus numerous articles which have appeared in many professional publications. He has been a guest lecturer at the Harvard Business School, Loyola College, and Boston University. pany wanted to increase its share of the market. It planned to achieve this goal through the purchase of established companies as well as through internal expansion. As each acquisition was digested, the plan was to move the operations to the town of Durard, for which the parent company was named.

The management of the company was disappointed in its progress — and changed general managers three times during a six-year period. The chronology of events leading to management dissatisfaction was as follows:

Purchase of Acme Plastics and Expansion from Within. Acme Plastics became a part of Durard in August of the first year-as indicated in the pictorial diary represented by the facing chart. This acquisition resulted in a substantial increase in sales volume, as well as profits. Since plans called for all Acme activities to be moved to Durard, a building expansion program was undertaken. This was completed in the spring of the second year, and the move was made. Concurrently with the completion of this move, 12 injection molding presses were purchased and set up in the expanded plant. The combination of the Acme move and the establishment of an injection molding department proved to be "too big a bite." Since only key supervisory personnel of the Acme Company were transferred, critically needed skills, such as setup men and die and mold repair men, were in short supply. Utilization of equipment, which had normally been running at 95 per cent, now dropped to an average of 45 to 50 per cent. The new injection molding presses ran less than 25 per cent of the time for several months following installation while "bugs" were being taken care of and operators and setup men trained.

Naturally, these problems reflected themselves in reduced sales volume as well as reduced profits. As a result, the second year ended with a loss.

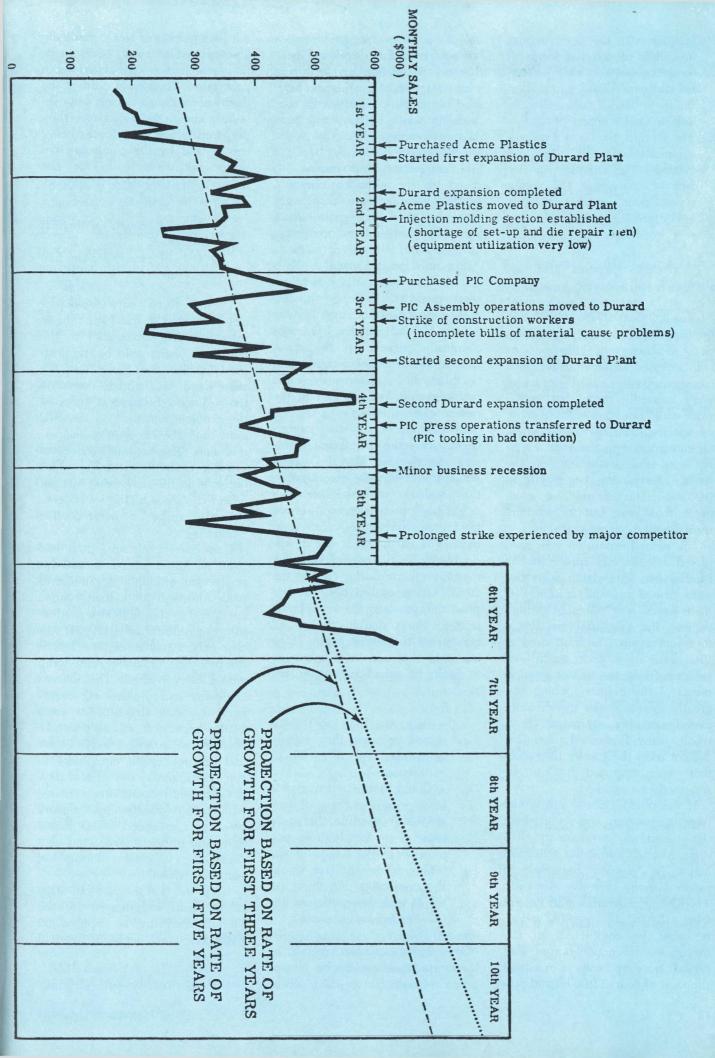
Sales had slipped throughout the second year because of the company's inability to make shipments to customers. Some improvement was experienced during the third year. Utilization of the equipment transferred from Acme increased to 75 per cent-somewhat short of the desired 90 to 95 per cent. The newly purchased injection molding equipment still lagged at 65 per cent of production goals rather than at the anticipated level. The company believed it would take from six to nine months more before utilization of the equipment could attain optimum levels. The profit outlook still was not good but improvement seemed in sight. Because the Durard Company was in sound financial condition, it was able to weather the storm. Under similar conditions other companies would have failed.

Purchase of the PIC Company. The general manager, who had been with Durard two years, had been released and replaced by a new man. The new man was advised of the company's interest in growth and of the recent problems that had been encountered.

Shortly after taking over, the new general manager learned that the PIC Company, which was in financial straits and losing money, could be purchased at a bargain price. This purchase would permit Durard to immediately get into another related product line and pick up PIC's customers. With the Acme move out of the way, the decision was made to purchase PIC and to transfer the operations to Durard as soon as possible.

Within two months, the unprofitable hand assembly items were moved. It was felt that the high labor rates paid at PIC's former location made profits there out of the question. The substantially lower rates in the Durard area should help considerably. Although the rates were lower, management miscalculated on two other counts:

1. Purchasing and production scheduling personnel were un-



DURARD COMPANY ACTUAL AND PROJECTED SALES FOR TEN YEAR PERIOD

familiar with the new product line. Bills of material were incomplete because PIC personnel had carried this information "in their heads" rather than in documented records.

2. The Durard plant could not accommodate the PIC press operations. The trouble was not lack of space but the wrong type of floor construction. PIC's heavy presses required heavily reinforced floors.

PIC press operators and tool shop men were leaving as soon as they could find other employment -knowing that their tenure was limited. Downtime on presses, because of shortage of skilled personnel, increased astronomically. Plans for the second Durard expansion were hurriedly made, but actual work could not start because of an unexpected strike that closed down all construction in the area. Finally, with the settlement of the strike, construction began late in the year. Durard made a small profit that year, but its working capital was becoming strained.

The second expansion was completed late in the spring of the fourth year. Production schedules were firmed up and certain PIC items were now running at high volume. But then problems began to mount again. The tools used at PIC were of a poor quality-no longer meeting the tighter requirements of the industry, which had greatly increased the use of automated assembly equipment. As a result, many fabricated parts that did not meet the greater tolerances that were required had to be scrapped or reworked.

It was obvious that a substantial retooling program was required. In the meantime, productivity had dropped and production schedules had to be "juggled" frequently to satisfy specific customer demands. The tooling program would require from 15 to 18 months before it could be completed. In the meantime, production output continued to drop with a resultant slippage, of course, in sales and profits. To add to the problems, a business recession developed near the end of the fourth year during what was normally a high volume production period. Although the recession was relatively mild, productivity continued to slip while the company frantically tried to find competent tool makers to speed up the retooling program. At this point the general manager was relieved of his responsibilities and still another new man was brought in.

The new general manager (let's call him Norm Bayard) was somewhat surprised to learn that his predecessors had had such a short tenure. He realized that if he mechanically picked up the reins, without some deeper investigation, he might fall victim to the same problems that had resulted in the release of his predecessors.

In his "get acquainted" interviews with the members of his staff, he decided that he would attempt to determine exactly what the problems were and how they might have been prevented-or, at least, greatly minimized. He sensed that some of the staff would, undoubtedly, in the role of "Monday morning quarterbacks," apply the 20/20 vision of hindsight to impress the new boss. To avoid being misled, Norm double-checked all statements that were made. If he was told that bad tools had been at fault, he asked such questions as:

- Were the tools poorly designed or were they merely worn out and in need of maintenance?
- Could better maintenance have prevented the problem?
 Was it possible that only some of the key high volume tools were the source of the problems? In that case, would the availability of a duplicate set of tools have allowed for the needed maintenance?

By asking questions such as these, statements could be pinned down to more factual data. Without being obvious, Norm gradually accumulated a "bank" of information which was correlated with past sales. To this he added the data accumulated during his own tenure. The pictorial diary was then prepared. Since growth was being emphasized by the company, two projections were made for the balance of the ten-year period. These were based on:

• Rate of growth for the first three years.

• Rate of growth for the first five years.

The first three years would project the trend if the high rate of sales increase experienced in the first three years could be duplicated. The five-year period, on the other hand, was a more conservative estimate because it reflected the problems incident to the PIC move and the effect of a business recession. The favorable effect of a major competitor's strike, which occurred in the sixth year, was not included because this was considered to be a non-recurring windfall.

Corrective programs that had been instituted by Norm and his predecessor gradually began to take hold. Although production volume continued to slip, defective production was reduced materially. It was now only a matter of time before the problems of tooling and setup would be corrected. The Durard Company had profited immensely from the long strike of its competitor because it was able to take business on a more selective basis and set up certain equipment to run continuously, day-in and dayout. One-shift operations were expanded to two shifts and the work week was extended to 45 hours. Sales and profits soared-somewhat relieving a serious shortage of working capital.

Norm felt that the pictorial diary of problems experienced by the Durard Company, as depicted on page 17, could serve a two-fold purpose:

1. It would provide a his-

tory of past events and demonstrate their effect on operations.

2. The availability of this type of data would be helpful in management meetings to reinforce the need for solid planning.

It seemed that the two previous general managers had moved too quickly to fulfill the company's desire for growth—with the consequence that the company's working capital had been seriously impaired. As a result of this and the other observations made by Norm, the following *Ten Commandments* for *Expansion* were established:

1. Expand in your own field of expertise. Competition is tough enough without giving your competitors a built-in advantage.

2. Evaluate the market potential before expanding. Check the life cycle of your products to assure that you don't find yourself making a horse-and-buggy product in the automotive age.

3. Check possible monopoly restrictions. There's no point in expanding and then going through divestiture proceedings.

4. Evaluate your financial resources. Determine the potential effect on working capital if things don't go according to plan.

5. Check what your competitors are doing. If they have already embarked on a major expansion program, you may want to take a different course to avoid a large investment in excess facilities of that particular product.

6. Don't expand just for the sake of size. There's nothing to be gained by increasing sales at the sacrifice of profits.

7. Coordinate engineering and production activities. Make certain that bills of material and process specifications are documented rather than being kept in someone's head. This applies to nonmanufacturing activities with equal force.

8. If the design of a product is changed, modify the tooling im-

mediately. Waiting until the order is processed can mean expensive delays and problems in scheduling.

9. Don't expand beyond the limits of available skills. Hold expansion within the limits of the skills that can be made available in the foreseeable future-otherwise efficiency and utilization of equipment will suffer.

10. Transfer the required skills —hourly as well as salaried. If some employees are reluctant to relocate, ask them to stay on for an additional six-month period to train employees at the new location. The extra travel and living expenses will be far cheaper in the long run.

The company recognized that its policies emphasizing growth had been taken too literally by past general managers. To avoid a recurrence, the ten commandments were summarized in the form of a policy letter to all members of management. All subsequent plans for expansion were reviewed by a committee headed by the executive vice president and made up of representatives of the following disciplines:

- Operations
- Engineering
- Sales
- Finance

This group met once a month to evaluate plans for future expansion and to review progress on current moves. The results of these meetings were summarized and presented to the officers of the company for their review.

Establishment of the ten commandments and the monthly reviews had a salutary effect. The rate of growth for the balance of the ten-year period was not as great as the company had hoped for originally. However, the date did exceed the growth pace of the first five-year period. The growth of profits, however, tripled the rate of the first five years. As a result, losses were minimized because of a more orderly expansion. Ten Commandments for Expansion:

1. Expand in your own field of expertise.

2. Evaluate market potential before expanding.

3. Check possible monopoly restrictions.

4. Evaluate your financial resources. Determine the potential effect on working capital if things don't go according to plan.

5. Check what your competitors are doing to ensure that you're not expanding in an overcrowded field.

6. Don't expand just for the sake of size.

7. Coordinate engineering and production activities.

8. If the design of a product is changed, modify the tooling immediately.

9. Don't expand beyond the limits of available skills. 10. Transfer the required skills—hourly as well as salaried. If some employees are reluctant to relocate, ask them to stay on for an additional six-month period to train employees at the new location. The extra travel and living expenses will be cheaper in the long run.