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A PRACTICAL APPROACH TO DETERMINING WHEN TO EXPAND AND WHEN TO STABILIZE SALES

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ABSTRACT

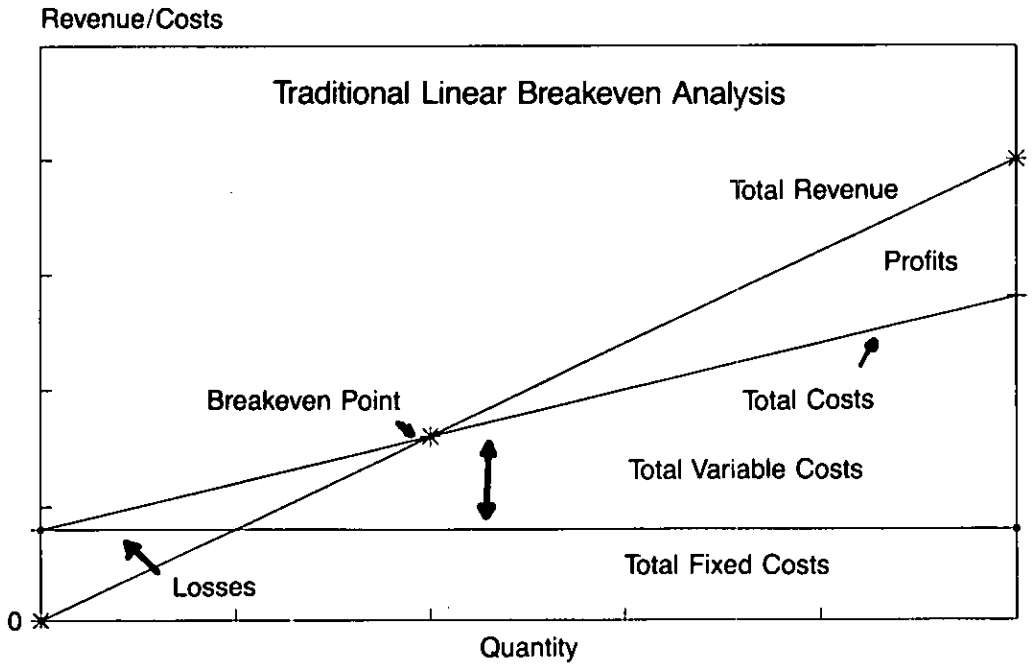
A successful young firm experiencing rapid sales growth can suddenly encounter declining profits due to decreasing contribution margins because of production capacity limitations. Expansion is not an automatic solution because it increases fixed costs and raises the first breakeven point. This paper is designed to provide strategies for planning for the combined effects fixed costs, variable costs, revenues and sales will have on profits if additional sales growth is attempted. Rapidly increasing variable production costs signal the need to consider expansion, but product demand strength and life cycle stage affect the decision. Either of these can be responsible for declining contribution margins resulting in lower than anticipated profits at higher sales levels. Because of higher fixed costs caused by expansion, the business cannot return to sales levels that were profitable before the expansion.

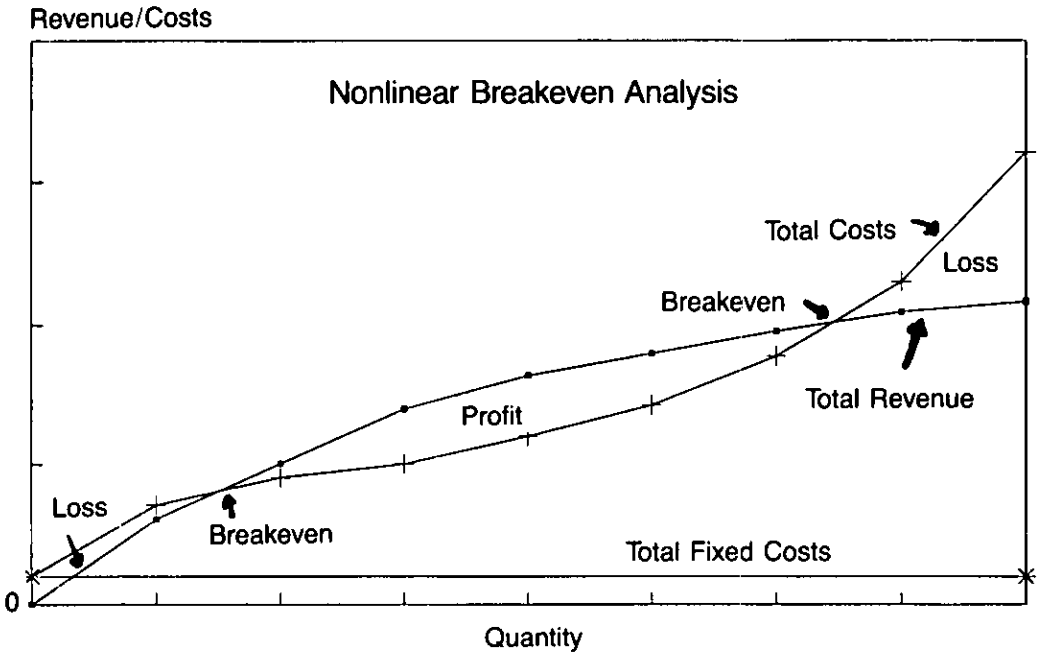
Why is it possible for a prosperous small business experiencing rapid sales growth to begin encountering declining profits even though sales continue to increase? Traditional breakeven analysis illustrated in Exhibit 1 implies a path of "smooth sailing" once a firm is able to generate sufficient volume to reach the critical "breakeven" hurdle. In fact, this concept has been a major source of deception because it implies that the only requirement for an increase in profits is an increase in sales.

Unfortunately, the inexperienced entrepreneur tends to view the sales volume/profit relationship in this simplistic manner, forgetting about two key limitations of linear breakeven analysis. Total revenue is depicted as a straight line based on the assumption that prices of products sold do not change regardless of volume, while total cost is shown as a straight line based on the assumption that variable cost per unit sold is constant and is not affected by the level of sales (11).

Exhibit 1

Comparative Profit Implications Of Traditional Linear Breakeven Analysis vs. Nonlinear Analysis





Economists' version of breakeven analysis goes to the other extreme regarding these variables with the assumptions that both selling price and variable cost per unit are constantly changing as sales volume changes. This results in revenue increasing at a decreasing rate and total cost increasing at an increasing rate as sales increase, producing two breakeven points as shown in Exhibit 1. Price declines occur because of the "law of demand," which states that price reductions are necessary to generate more sales (5). Variable cost per unit eventually rises because fixed assets, reflected in fixed costs, eventually limit production efficiency and capabilities (5).

At least the nonlinear analysis approach recognizes the possibility that profits can decline as sales increase; and, if sales are pushed too far without increasing fixed assets, losses rather than profits are produced. First hand experiences of many small business operators who have had to contend with this phenomenon are a testimony to the fact that there is probably some validity to this concept.

Both approaches focus on the key relationship between fixed costs and "contribution margin," defined as the difference between selling price and variable cost per unit. Linear analysis is based on the assumption that contribution margin is constant and each unit sold after reaching breakeven will contribute the same amount of revenue dollars. On the other hand, nonlinear analysis is based on the assumption of a constantly changing contribution margin which eventually begins to decline and finally becomes negative if sales are pushed too far. Failure to consider the possibility of declining contribution margins, once profit begins, is a common problem among small business entrepreneaurs.

THE BUILDING BLOCKS OF A PLANNING TOOL

A review of the literature reveals an extremely limited repertoire of tools to aid small business managers in planning for the effects increases in sales will have on profits. While the concepts used in nonlinear breakeven analysis can explain a common situation faced by many growing young firms, few attempts have been made to incorporate them into techniques suited to small business applications.

Di Pietro and Shawhney's study is one of a few which even considers the possibility of two breakeven points (4). Results of their study revealed failure rates to be much lower among managers who recognized that they were operating under economic constraints which confined their profitable production level to a limited range of output between two breakeven points. Using concepts provided by nonlinear analysis, these authors explain the importance of management response to changes in economic climate. They also observed that management competency, reflected in the ability to recognize and adjust for changes in economic variables affecting sales or costs, tends to improve with a manager's experience.

Evidence in the literature also leaves little doubt that changes in general economic conditions affect the sales volume of most businesses. Typical findings are reflected in studies such as the one conducted by Rao, Kreighbaum, and Hawes in 1983 (8). Their survey of small businesses showed 67% experienced sales decreases during recessions. Only 16% reported "no effects," while 17% observed sales increases. Most of the firms reporting sales increases were among small manufacturers producing products that either improved efficiency or cut costs.

Findings of both of these studies suggest that the small business manager encounters some predictable relationships between variable costs, prices, fixed costs, sales volume, and the resulting profit. Most firms facing a recession can expect sales volume to decline. Di Pietro's study implicitly recognizes the role of the contribution margin and its relationship to fixed costs as sales volume changes. However, this study revealed that only experienced small business managers have been able to use this information, and they apply it only through a "seat of the pants" approach.

ONE BREAKEVEN POINT OR TWO?

Differences between the conflicting assumptions concerning price and variable cost behavior must first be reconciled before a practical tool can be provided for the small business entrepreneur. In the everyday operating environment for most firms, these economic constraints exhibit behavior patterns representing combinations of the characteristics of the opposing views expressed in the two theories.

Eventually Of A Lower Revenue Line

At start up, the typical small business does not have to reduce prices as a prerequisite to sales increases. Most new firms are supplying such an insignificant share of the total product market that their production level cannot affect price. Studies of the role of the stage in a firm's life cycle also reveal another reason that a start up firm does not have to contend with declining product price (6). Young firms which do succeed do so because they offer products and innovations which are readily accepted in the marketplace. At start up and during early growth stages, the new venture is operating with limited competition because it is offering something different. During these stages there is no price competition because potential competitors have not had time to begin copying the successful formula; and the new firm enjoys a period of time during which its product is successfully differentiated, thus avoiding price competition (6).

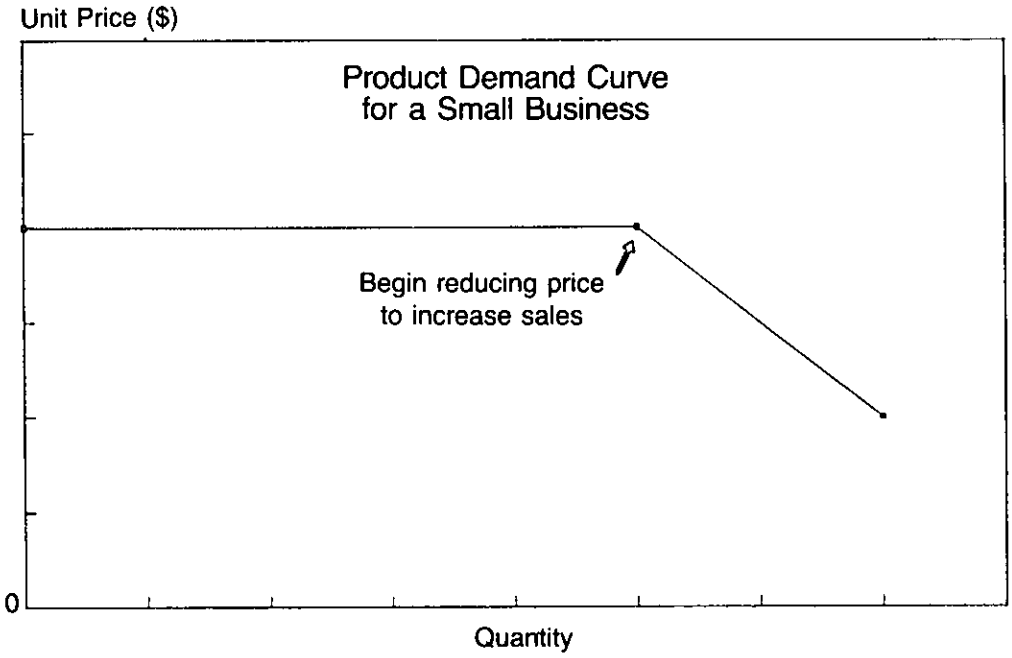
To assume that a new firm can produce unlimited quantities of a product and not have to deal with declining product price is an erroneous assertion that can lead to incorrect planning decisions and overexpansion. Unless the new firm has some type of monopoly protection, which is highly unlikely, it will eventually have to contend with competition from other firms offering similar products or services.

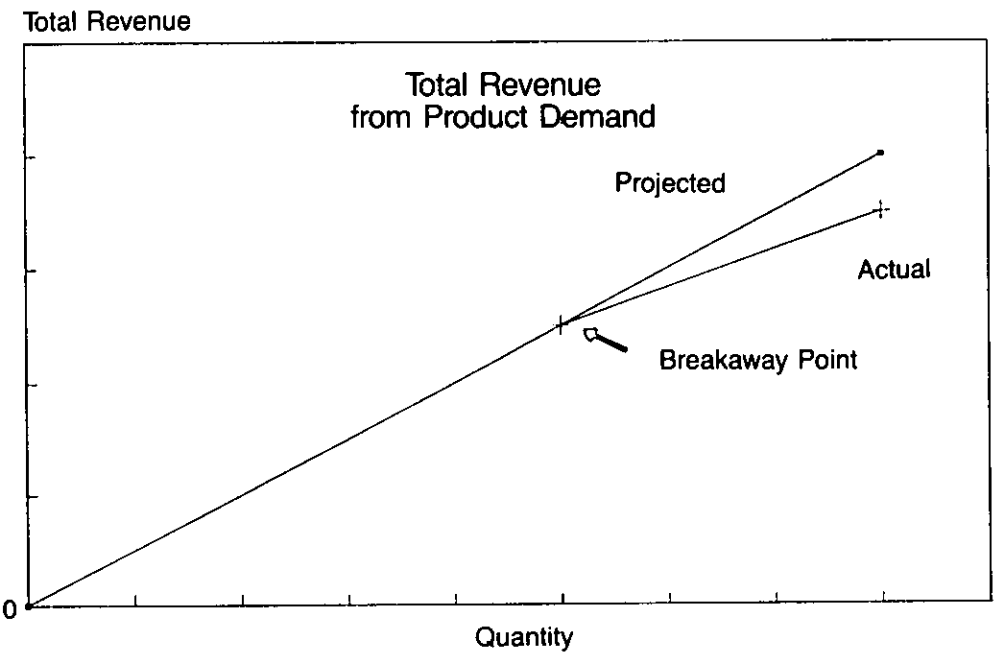
Exhibit 2 illustrates the most likely pattern for a small business revenue curve. Demand for products allows sales increases without altering price up to some, usually unknown, limit at which the product market becomes saturated and price reductions become necessary to push sales to a higher level.

Hank's classification and analysis of the stages in a firm's life cycle support the logic of the product demand and resulting revenue curve shown in Exhibit 2 (6). He identifies the five stages of (1) start up, (2) expansion, (3) consolidation, (4) revival, and (5) decline. During the start up and expansion stages, the entrepreneur does not have to be concerned with product price. Major and frequent product innovations occur in the start up stage and incremental innovations continue through the expansion stage. However, the consolidation stage occurs because innovations that

Exhibit 2

Shape Of The Revenue Schedule For A Typical Small Business





keep a firm abreast or ahead of competition become scarce. Boag and Dastmalchian discovered that, in addition to innovations, greater contact with customers together with knowledge of their needs is one way to gain a non-price competitive advantage (3). However, even this strategy only extends the expansion period. Because of an inability to compete through non-price means, price competition becomes the strategy for maintaining and increasing sales volume.

The revival stage occurs for those firms which successfully regroup and either find a new way to market a product or simply move on to other products. However, even at this stage, prices do not return to their old levels. To avoid the predicament of having to competitively price a product, a firm has to be successful at market segmentation and product differentiation. This task becomes increasingly difficult as the firm and product mature.

The breakaway point concept shown in Exhibit 2 identifies the location on the revenue curve at which the assumption of constant price of linear breakeven analysis ends and the assumption of required price reduction to stimulate sales begins.

While small businesses face demand and sales revenue schedules with patterns such as those shown in Exhibit 2, the sales level at which the "breakaway point" on the revenue line occurs will shift over time, depending on the extent and implementation of available product innovations and the life cycle of the firm. For a start up firm in a new industry the breakaway point may be so far up the revenue line that it can be ignored. As product markets become saturated and innovations become scarce in a maturing industry, the breakaway point begins to drop to lower sales levels. Sales levels at which prices were constant before result in price competition and lower total revenue as a consequence.

Tyebjee and others trace the stages of marketing strategies in growth firms and provide evidence of another reason that prices may be voluntarily reduced to achieve higher sales levels (10). Small manufacturers catering primarily to retail firms at start up become enticed by high volume sales to wholesale distributors. However, price per unit is reduced while the firm is often forced to close the door on sales to retail firms to prevent conflicts of interest. With the lower mark-up on cost, the firm now must sell a larger volume just to survive.

Inevitability of Rising Production Costs

Production costs do not rise just because prices of labor and/or materials have increased. These costs also rise because of inefficient use of variable input factors. Inefficiency sometimes occurs because a business attempting to increase sales tries to produce more than the capability of plant and equipment. Fixed assets impose capacity limitations, and a firm experiencing high sales growth can tax the capabilities of these assets as it attempts to get more production by hiring more workers and purchasing more materials.

Achieving higher sales levels eventually requires a plant expansion. Blue and others discuss the effects of expansion on total costs using breakeven concepts (2). Because of higher fixed costs, total costs increase. Each successive expansion and accompanying increase in fixed costs moves the linear breakeven point to a higher sales volume. A major negative implication of an expansion is that a firm must constantly maintain sales at new levels. The firm cannot go back and produce at lower levels which were profitable before the expansion because of the increases in fixed costs resulting from the expansion.

Fixed assets not only limit maximum production capacity and partially determine the minimum sales level necessary to reach breakeven but also dictate an efficient production range. For example, a 20,000 square foot grocery store could not be operated very efficiently with only one employee. On the other hand, there is a limit to the number of employees and amounts of groceries which will continue to produce sales increases without expansion to larger facilities. For any size grocery store there is an efficient sales volume range. As shown in Exhibit 3, total cost is partially a function of efficiency created by mixing labor, merchandise, and facilities in compatible combinations. Continued attempts to increase sales by adding more workers eventually causes costs to increase more rapidly than production and sales.

Using Changes in Cost Accounting Data as Information Signals

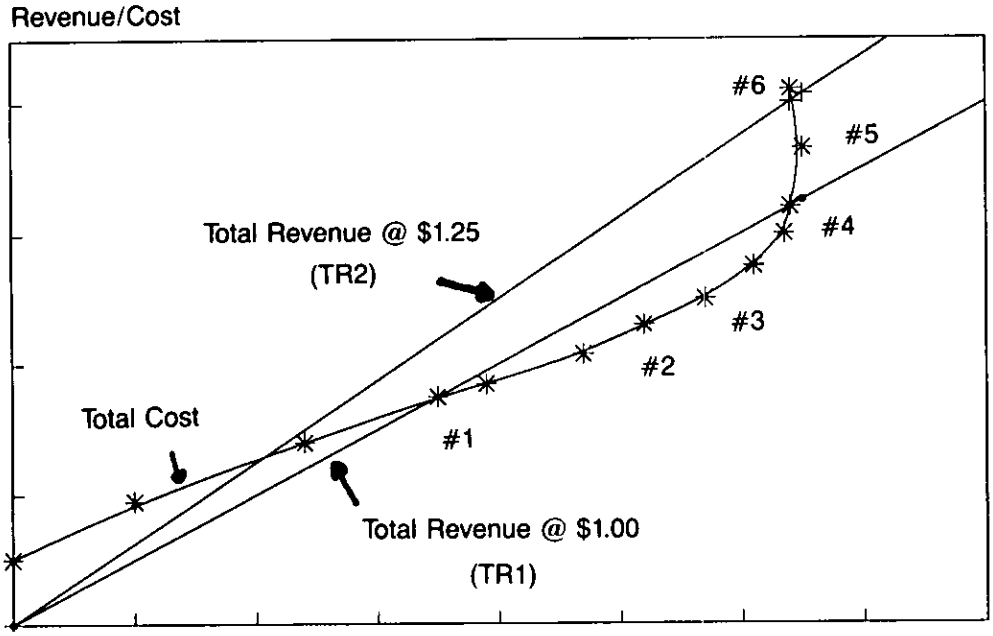
Entrepreneurs faced with the inevitability of rising variable costs, as attempts to increase sales strain limits of production facilities, can determine when cost changes occur and use this information for expansion planning purposes. Exhibit 3 illustrates a very simple and practical approach for applying this economic concept using readily available accounting data. Actually, the tabular data shown in the exhibit is the type of worksheet that can be prepared to determine how sales increases are affecting variable costs and what effect this is having on profits. The diagram in the exhibit is simply a graphic presentation of the figures from the table. The primary function of the graph is to illustrate the purpose of procedures used in the table as they relate to the economic theory being applied. For management purposes only the table is needed because it provides the sales level information that enables entrepreneurs to determine when they must begin considering either expansion or sales stabilization.

The figures on the worksheet are accessible from accounting records although additional analysis may be required to break down fixed and variable categories for overhead and for selling and administrative expenses. Companies which prepare performance reports based on flexible budgets (budgets adjusted to the level of production) will have the overhead broken down into fixed and variable categories. Likewise, companies that compute spending or budget variances for variable overhead will have the breakdown.

For companies which do not have overhead categorized as variable or fixed, or for selling and administrative expenses which are not broken down, the company's accountant can obtain this information by the "account sort" method. The account sort method means that the accountant examines the account and determines whether the expense is variable or fixed by the way it behaves. The information should be assembled for the worksheet each time a significant sales increase occurs. Once an initial determination of the fixed and variable categories is made, adding new data to the worksheet is a routine task that can be performed easily.

Exhibit 3

Acme Company Information Points



Effects of Fixed Asset Constraints on Variable Costs and Profits of the Acme Company

# Workers	# Produced	× Variable Cost Per Unit	= Total Variable Costs	+ Total Fixed Costs	Total Revenue	= Revnu-cost Prft/Loss (#1/Unit)	Info. Points	Contrib. Margins
10	100	$.900	$ 90	$100	$100	($90)		$.10
20	240	.750	180	100	240	(40)		.25
28	350	.714	250	100	350	0	#1	.286
30	390	.692	270	100	390	20		.308
35	470	.670	315	100	470	55	#2	.330
40	520	.692	360	100	520	60		.308
44	570	.702	400	100	570	70	#3	.280
50	610	.738	450	100	610	60		.262
56	635	.787	500	100	635	35		.213
60	640	.844	540	100	640	0	#4	.156
70	650	.969	630	100	650	(80)	#5	.031
80	640	1.125	720	100	640	(180)	#6	-.125

Such analysis provides management with a useful planning tool that shows them the relationship among sales increases, production inputs, variable cost per unit, and limitations of attempts to continue to increase sales when facilities become inadequate.

The sample worksheet in Exhibit 3 is based on the assumption that units are sold for $1 each and price does not change for all sales levels listed. This revenue schedule is illustrated as TR1 in the graph. Contribution margin, which is the difference between price per unit and variable cost per unit, is a key factor affecting profits. However, as shown by the graph, a higher selling price of $1.25 (TR2) would not alter the changing cost schedule which is a function of production efficiency, not product markets. On the other hand, the larger contribution margins with TR2 provide management with additional time to consider the expansion decision.

As Acme Manufacturing Company begins operation, it will incur losses due to the $100 of fixed costs. At a production level of 100 units it receives a contribution margin of $.10 ($1 price-- $.90 variable cost). The size of the contribution margin increases until a production level of 470 units is reached and variable cost per unit is at its lowest amount of $.67, producing a contribution margin of $.33. This pattern of declining variable costs reflects improving efficiency due to favorable elements such as specialization at tasks among workers and so on.

However, when production rises to 520 units, variable costs per unit begin to rise and contribution margin begins to decrease. This pattern of decreasing contribution margin will escalate as sales increase due to rapidly rising variable costs. Acme will encounter a second breakeven point at 640 units before it reaches absolute capacity of 100%. Production at capacity will result in losses of $80 if selling price is $1 per unit.

Prices of labor, materials, and other variable inputs are assumed to be in constant dollars for Exhibit 3. This leaves differences in production efficiency as the only explanation for changes in variable cost.

This pattern in variable costs is created by limitations imposed by fixed assets. Managers of rapidly growing small businesses must especially note the fact that the squeeze on the contribution margin begins before production reaches full capacity.

Information Points and Decision Signals

There are six points on the total cost curve and on the worksheet in Exhibit 3, identified as "information points"; these coincide with various levels of sales.

Point #1 is the first breakeven quantity. This point marks the location at which profits begin. Increasing output will result in increasing profits as long as production efficiency increases.

Point #2 marks the end of increasing efficiency, identified by the fact that variable cost per unit is at its lowest value, $.67 for the existing assortment of fixed assets. Additional production and sales will result in higher variable cost per unit, causing total costs to begin rising at a faster rate

than sales. Accounting data would normally not reveal the location of Point #2 until "after the fact" when an actual increase in variable cost per unit is observed as production goes above 470 units. This turning point in the trend can be located in retrospect from the worksheet illustrated in Exhibit 2 but still soon enough to be useful.

Point #3 identifies the sales level which will result in the highest profit level without expansion. Producing more than 570 units will reduce the contribution margin resulting in decreasing total profits. Like Point #2, this information point can be identified only after sales have increased above the level for the point.

Point #4 is the second breakeven point. Increasing production and sales above 640 units will result in operating losses because total costs exceed total revenue if selling price is $1.

Point #5 is capacity output. No additional output can be produced with the existing assortment of fixed assets. However, variable costs can continue to increase if production increases are attempted.

Point #6 is in the region of declining output. Future attempts to produce more will only increase costs.

The illustration for the Acme Company represents a compressed production function in that output changes do occur more gradually for most small businesses, spreading the cost effects shown over a broader range of sales. This compression was intentional for illustration purposes to reduce the calculations necessary to show the effect. In all businesses, the limitations of fixed assets on production capabilities and costs are real and eventually create the contribution margin squeeze illustrated by the worksheet. Fortunately for small business operators, this problem begins to reveal itself more gradually than is shown for the Acme Company.

The Expansion Decision Point and Response Strategies

Entrepreneurs should be watching for Point #2 once the business has reached the initial breakeven stage at Point #1. This is the point of maximum contribution margin. Point #3, the sales level maximizing profit, will follow shortly for a firm experiencing sales growth. Point #2 is easily identified by the fact that total variable cost per unit will be lower than at any other sales level.

Recognition of Point #2 can be referred to as the "Expansion Decision Point" for the firm. Note that the sales level at which actual recognition occurs will be higher than the sales level producing Point #2. Only after sales have increased to a level high enough to cause variable cost per unit to increase and contribution margin to decline does Point #2 become identifiable. Point #3, the sales level producing maximum profit, may have already been exceeded when this recognition occurs. The declining contribution margin which starts after Point #2 signals declining production efficiency with existing facilities and the need to consider expanding to larger facilities that would shift the efficient range of the cost curve to a higher sales level.

Expansion does not occur automatically just because management realizes the expansion decision point has been reached. Expansion increases fixed costs and shifts the initial breakeven point to a higher sales level. A business with low fixed costs can sustain declines in sales volume and still make a profit while the same sales decline would cause losses for firms with larger investments in plant and equipment and higher fixed costs.

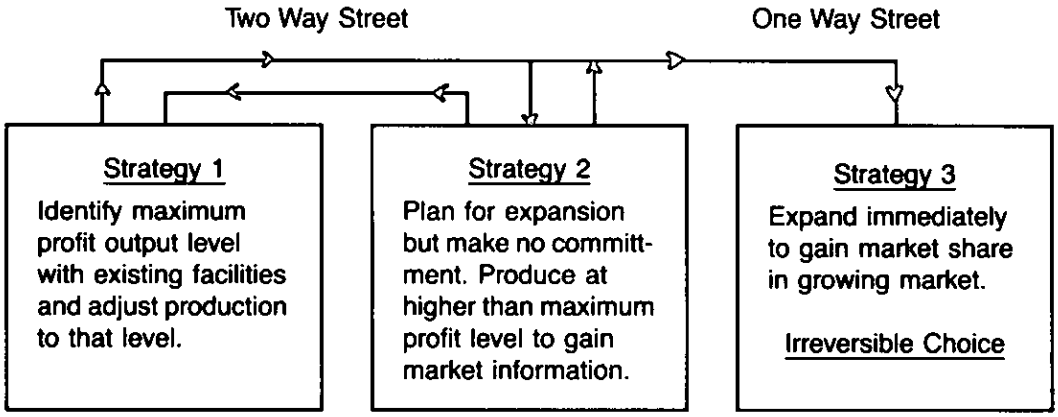
Three options are available at the decision point. Strategies include: 1) Retain current facilities and adjust sales to the level which maximizes profit; 2) Plan for expansion but delay financial commitments while continuing to increase sales. This "wait and see" approach allows the business to test product demand strength at higher sales levels and through more highly developed stages of the product life cycle. Since plans are ready, once the market has been tested, the plan can be implemented if needed; or 3) Expand to larger facilities as quickly as possible so the firm will have the profit and advantages of operating in the efficient production range for the larger facility. This action should only be taken when the evidence indicates that there is no question of the ability to generate adequate sales to utilize the larger facilities.

For the young firm blessed with rapid growth, Strategy 3 will lead to larger profits if sales continue to increase. If a young firm is operating in a new product market, it is important to move quickly to gain market share before competition strengthens. Also, the firm will already be operating near the maximum profit level for existing facilities once the Expansion Decision Point is reached. The contribution margin will be declining as sales increase during the delay period required to bring the new facilities into operation. Profits can be increased over the long run by shifting to larger facilities as soon as variable cost per unit shows evidence of increasing.

Inherent risks of Strategy 3 are greater than for either Strategies 1 or 2 because it results in a non-reversible choice. The flow diagram in Exhibit 4 illustrates why the first two alternatives do not "close doors" as does Strategy 3.

Exhibit 4

Flexibility Of Choices At Expansion Decision Point



If Strategy 1 is chosen, focus is on identifying Point #3, the sales level that produces the highest profit. This identification requires computation of profit data for various levels of sales to locate the specific point. Data should be prepared for small sales volume increments after information Point #2 is reached because contribution margin will begin declining at that point and maximum profit will not occur at sales levels less than those at Point #2.

Uncertainty concerning strength of product demand is probably the main reason for choosing Strategy 2. This strategy entails a testing of market strength without having to choose the non-reversible course of Strategy 3. However, management must be aware of profit sacrifices since profits will decline with increases in sales as long as existing facilities are used. Attempts to push this strategy too far will result in losses, which may occur under some circumstances before capacity is reached. Strategy 2 should be considered only as a temporary choice to gain market information before selecting either Strategy 1 or 3.

Market Assessment at the Expansion Decision Point

While most expansion decisions of the new firm can be based on the assumption of constant selling prices, management must not forget that at some sales level prices may have to be reduced to increase sales. Instead of a linear revenue line, the breakaway point may occur, causing a lower total revenue curve, as discussed earlier in this paper.

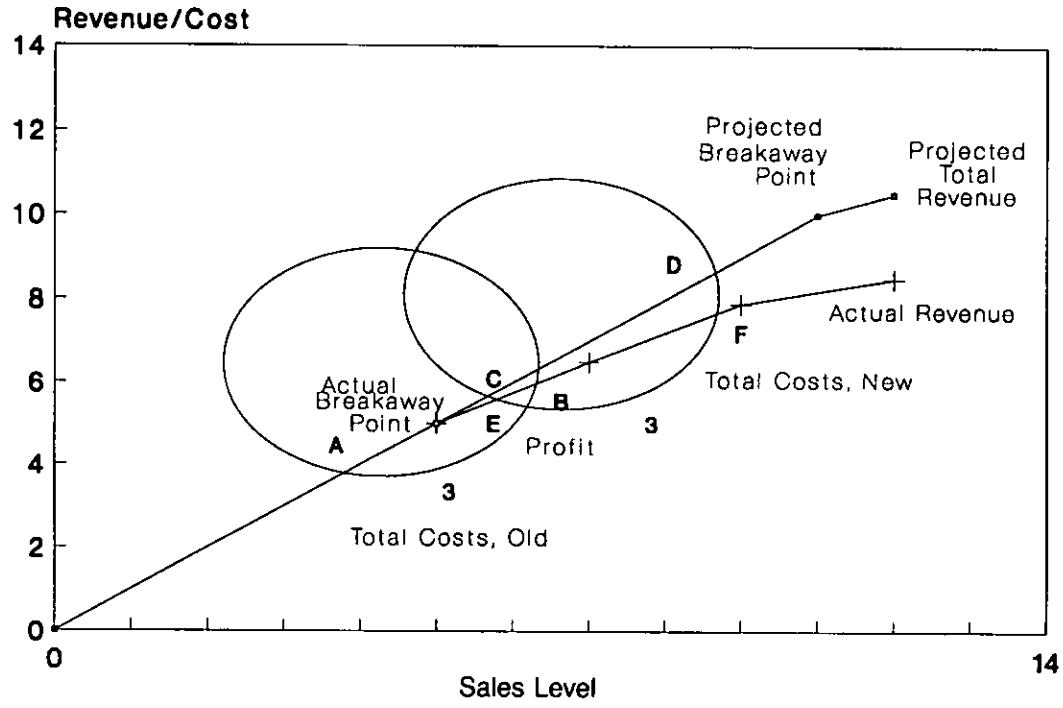
Before choosing the course of expansion in Strategy 3, small business entrepreneurs must carefully assess the market demand for their products to determine if moving to a larger sales volume will place them at a sales level where they must engage in price competition to increase sales. If this occurs, the contribution margins will be lower, resulting in lower than anticipated profits.

Overexpansion not only exposes the small business to the risks created by a higher breakeven point but also places the firm in a position from which it is more likely to have to compete on the basis of price because it has to maintain a larger sales volume. Exhibit 5 shows why failure to correctly identify the breakaway point on the revenue line is a serious oversight.

If the Acme Company decides to implement Strategy 3 and build larger facilities so that it can continue to increase sales and do so efficiently, the total cost curve will shift as shown in Exhibit 5. Acme makes the decision based on the assumption that a price reduction will not be necessary to generate the additional sales. Based on this assumption, management realized that profits may drop at first because of the effect of additional fixed costs due to purchases of plant and equipment, but it expects higher profits eventually because the spread between selling price and variable costs is greater for the larger, more efficient size plant. This efficiency improvement is reflected in the distance between information Point #3 and the Projected Total Revenue line directly above those points for the respective cost lines for each size facility represented in Exhibit 5.

Exhibit 5

Implications of Stabilization /Expansion



There are two pitfalls associated with this expansion. Acme must now produce at higher sales volume just to make a profit. Breakeven points for existing facilities are A and B and profits can only be produced between these two sales levels. For the expanded facilities, assuming constant prices, management expects the projected breakeven points to shift to C and D, producing a larger profit range with larger profit margin potential. Note that due to higher fixed costs, Acme will incur losses if a recession or other event causes its sales to decline below level C. At present, Acme can actually maximize profits by producing below this level. To be successful with the expansion, sales must increase enough to reach the efficient operating range of the larger facilities. In the illustration shown, a large increase in sales is necessary just to make as large a profit as the firm can produce with the smaller facilities already in use.

The second pitfall which Acme's management overlooked with their assumption of constant price is that of smaller contribution margins due to reduced prices required to sell increased production. Since contribution margin is the difference between selling price and variable cost, declining prices will reduce the margin and total profit at the higher sales volume with the expanded facilities, will be much lower than anticipated. In fact, Exhibit 5 illustrates that profit potential is no greater than with existing facilities, but the firm must almost double sales just to make as much profit as it would if it did not expand. Actual second breakeven point for the expanded facilities becomes F rather than D, so the range of sales between which profit can occur is E and F, which is slightly less than the C and D sales range projected.

Exhibit 5 also points out why most small businesses should select Strategy 2 when the Expansion Decision Point is reached. Operating at sales levels above Point #3 of maximum profit with current facilities provides a test of product markets for higher levels of sales before expanding. If Acme attempts to push sales above this point with existing facilities, it begins to encounter price competition and is informed of the fact that the total revenue line will take the shape shown and will not continue as a straight line.

The entrepreneur will discover that there is a size niche where it has been successfully operating, and it should maximize profits by remaining at that size. The firm may have a sufficient number of customers who prefer Acme's products and services and are willing to pay the same or higher prices than those charged by competitors for substitute products. However, there are not enough new customers with this same perception of the product. To generate additional sales requires Acme to engage in price competition. This lowers contribution margin on all sales because the company will also have to lower prices for the old, faithful customers who would have paid more for the products.

SUMMARY AND APPLICATION POSSIBILITIES

Traditional breakeven analysis oversimplifies cost and revenue behavior by ignoring changes in fixed and variable costs and selling prices. On the other hand, the economists' curvilinear breakeven analysis assumes these variables change constantly and is difficult to apply in a practical situation. This paper presents a middle-of-the-road approach to breakeven analysis that more accurately reflects the reality faced by most small businesses. Moreover, it illustrates how small businesses can assemble the necessary data to assess their position.

Rather than just identify one or even two breakeven points, a business person can determine six strategic information points including 1) an initial breakeven point, 2) the point where variable cost per unit begins to increase, 3) the point of highest profit without expansion, 4) a second breakeven point beyond which losses will result if production is increased, 5) maximum capacity without expansion, and 6) the region of declining output.

Faced with increasing sales, a small business operator can use one of three strategies: 1) elect to retain existing facilities and adjust sales to the level which maximizes profits, 2) plan for expansion but delay financial commitments while continuing to increase sales ("wait and see"), or 3) expand to larger facilities immediately. With proper market assessment and knowledge of his or her six information points, a small business manager can determine the strategy which will maximize long run profits.

REFERENCES

1. Adizes, I. *Corporate Lifecycles: How and why Corporations Grow and Die and What to Do About It* (Englewood Cliffs, New Jersey: Prentice Hall, 1989).

2. Blue, Thomas R., Carole B. Cheatham, and Barbar M. Rushing. "Decision Thresholds and Developmental Stages in the Expanding Business," *Journal of Business and Entrepreneurship* (March, 1989), 20-29.

3. Boag, David A., and Ali Dastmalchian. "Market Vulnerability and the Design and Management of the Marketing Function in Small Firms," *Journal of Small Business Management*, 26 (October, 1988), 37-43.

4. Di Pietro, William, and Banshi Sawhney. "Business Failures, Managerial Competence, and Macroeconomic Variables," *American Journal of Small Business*, 2 (October, 1977), 4-15.

5. Ferguson, C. E. *Microeconomic Theory* (Homewood, Illinois: Richard D. Irwin, 1966).

6. Hanks, Steven H. "Organization Life Cycle: Integrating content and Process," *Journal of Small Business Strategy*, 1 (February, 1990), 1-12.

7. Rice, G. H., and R. E. Hamilton. "Decision Theory and the Small Businessman," *American Journal of Small Business*, 4 (1979), 1-9.

8. Rao, C. P., Mark A. Kreighbaum, and Jan M. Hawes. "International Market Involvement and the Business Cycle," *Journal of Small Business Management*, 21 (October, 1983), 31-37.

9. Stephenson, Harriet B. "The Most Critical Problem for the Fledging Small Business: Getting Sales," *American Journal of Small Business*, 9 (Summer, 1984), 26-33.

10. Tyebjee, Tyzoon T., Albert W. Bruno, and Shelby H. Mcintyre. "Growing Venture Can Anticipate Marketing Stages," *Harvard Business Review*, 61 (Jan.-Feb., 1983), 62-66.

11. Weston, J. Fred, and Eugene F. Brigham. *Essentials of Managerial Finance* (New York: The Dryden Press, 1987), 309-30.