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Both absorption costing and direct costing schools have their advocates. But, as this article shows, what is appropriate for one firm or industry may be wholly inappropriate for another—

MANAGEMENT'S PRICING DECISION

by John C. Lere

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AN accountant called upon to provide information to assist the management of a firm in its pricing decision will probably react by computing some type of cost figure. Numerous "cost" figures have been proposed at different times as solutions to the "cost for pricing purposes" problem. Faced with many potential candidates for a cost to give management for use in pricing and convincing arguments in favor of each, the accountant may throw up his hands in dismay, use a coin to make the decision for him, or perhaps use his "favorite" cost figure, whatever

that favorite cost figure may be.

One approach to solving the accountant's dilemma is for him to further analyze the decision management must make. The decision to be made may be one of two basic types: 1) What price should we charge for our product? 2) Should we accept a price offered for our product?

The actual decision a firm faces makes a difference in the most suitable "cost" to use in the pricing decision. The remainder of this article expands the idea of different costs for different pricing decisions. Although only two costing

methods, absorption and direct, are used in the article, the analysis could be extended to other costing methods.

Initially, ways of using each costing method in pricing are presented. Then, four different types of firms are described in order to determine the actual decision being made and a suggested "cost" to assist the decision maker.

Two exhibits help to explain how absorption costing and direct costing might be used in product pricing.

One must start with a basic set of data from which to work. Two

Absorption costing results in the setting of a price . . .

similar firms will be used in the exhibits. AB Company uses absorption costing. DIR Company chooses to use direct costing. To facilitate comparison, the same basic data will be used in both of the examples.

Basic data

Past experience of AB Co. and DIR Co. has shown that each unit that they produce requires two and one-half units of raw material and three hours of direct labor. In addition, they have determined that the average purchasing price for raw material is \$2.00 per unit and that the average wage rate they pay is \$2.50 an hour. The companies must also decide upon a measure of business activity with which to associate cost for purposes of allocating variable overhead. Any indicator of the level of activity at which AB Co. and DIR Co. are operating could have been selected, e.g., machine hours operated or units produced. Both companies have chosen to use direct labor hours. Studies by their engineering departments have indicated that those elements of overhead which can be classified as variable are incurred at the rate of \$1.00 per direct labor hour.

Several additional facts are necessary to permit use of absorption

costing. Some measure of activity must be chosen for use in allocating fixed overhead to units of production. Since it has already been indicated that variable overhead incurrence is related to the number of direct labor hours worked, direct labor hours will also be assumed to be a suitable basis for fixed overhead allocation in order to simplify the example. Again, any indicator of the level of activity at which AB Co. is operating could have been chosen. Once an activity base is selected, it is next necessary to estimate the expected amount of activity for a given period of time. Also, the fixed overhead which the company expects to incur during the same period of time must be predicted. One year will be used in this example. The base chosen depends on the operations of the particular firm. During the period of one year, AB Co. expects to work 200,000 direct labor hours and expects to incur \$300,000 of fixed overhead. When absorption costing is used in the pricing decision, some method of converting production cost into price is customarily provided. A markup rate of 50 percent of total manufacturing cost will be used, but numerous other possibilities exist. With this information available, it is now possible to begin computation of an absorption costing price.

Exhibit I, below, left, shows the computation of an absorption cost price for the AB Co.'s product.

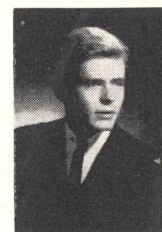
Briefly, computing a price for the AB Co. product under absorption costing involves seven steps. First, raw material usage for one unit of finished product is multiplied by the average cost of a unit of raw material. Second, labor usage in producing one finished unit is multiplied by the average wage rate. In the third step, the same labor usage figure is used and multiplied by the variable overhead rate in order to determine the amount of variable overhead to assign to a finished unit. The fourth step in Exhibit I involves the same labor usage figure. This time, however, the figure is multiplied times the fixed overhead rate (computed by dividing the fixed overhead expected for the period of time by the expected number of labor hours to be worked during the same length of time). Direct material cost per unit, direct labor cost per unit, unit variable overhead cost, and unit fixed overhead cost are totaled in the fifth step to determine unit manufacturing cost. For the AB Co. product, the sixth step involves multiplication of a markup rate times the unit production cost. The final step is the addition of manufacturing cost and the markup to determine price.

In using direct costing to assist DIR Co.'s management in its pricing

EXHIBIT I

AB Co. Product Price: Absorption Costing

Unit Cost of Manufacturing		
Direct Material	(2½ units x \$2.00/unit)	\$5.00
Direct Labor	(3 hours x \$2.50/hour)	7.50
Variable Overhead	(3 hours x \$1.00/hour)	3.00
Fixed Overhead	(3 hours x [\$300,000/200,000 hours])	4.50
Total Unit Manufacturing Cost		\$20.00
Markup (\$20.00 x 50%)		10.00
Unit Selling Price		\$30.00



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. . . direct costing results in determining whether a firm should accept a price

ing decision, one might take a different approach. Since the basis of direct costing is that fixed costs are not unit costs, the only cost elements to be used are ones which vary in total amount with the level of activity. Therefore, one might compute variable unit cost in much the same manner as was used above for the unit cost of manufacturing under absorption costing, except that fixed overhead is omitted. In addition to the variable manufacturing costs, one should also include variable selling and administrative expenses in the variable unit cost figure. For purposes of the example, the variable selling and administrative expenses are assumed to amount to \$2.50 a unit. (See Exhibit II, below.)

The total variable unit cost, \$18.00 in this case, is the significant figure for use in DIR Company's pricing decision. DIR Co. can use this figure to evaluate a price offered to it or a price determined by some other means. For example, the marketing division may suggest this as a successful price for a new product. In this example, price determined independently is assumed to be \$29.00. If the bid price is greater than total variable unit cost, each unit the firm sells will reduce a net loss or increase net income by the contribution margin, which is the difference between price and total variable unit cost. (This assumes that the firm need not increase facilities to produce the product being evaluated.) If no other alternatives are available for use of the firm's facilities, the firm would be advised to sell the product in the short run. During the short run, the firm will be unable to reduce productive capacity and hence a major element of fixed overhead, depreciation. Therefore, accepting any price greater than total variable unit cost under the

circumstances will maximize short-run income or minimize short-run loss.

The two pricing exhibits point out the basic difference in approaching the pricing decision. Absorption costing results in the setting of a price and direct costing results in determining whether a firm should accept a price. In other words, absorption costing is more appropriate when a firm's pricing decision takes the form: What price should we charge for our product? On the other hand, direct costing appears more useful when a firm's pricing question is: Should we accept a price offered for or suggested for our product?

Determining the pricing decision

Consideration of several industry examples may illustrate some of the different pricing decisions faced by firms. Four firm types will be discussed. The types are a) a seller of a uniform product on an open market, b) a novelty item firm, c) a price leader, d) a price follower.

Looking first at the firm selling a uniform product on an open market, one may observe that this firm has an economic environment that closely approximates what the economists call "perfect competition." By definition, a firm in perfect competition has no control over price.

Price is determined in a market where the aggregate buyers and sellers interact to yield a price. Then the seller must decide if he will accept the price or not. Accepting the price will enable the firm to sell as many units of its product as it wishes at the market price. Not accepting the price means that the firm sells none of its product and probably will not produce any units of the product. If the firm has no reasonable alternative ways to use its capacity, then it faces a net loss equal to its fixed costs, because it cannot reduce them in the short run. This firm is faced with the decision of accepting a price or rejecting a price. Therefore, the firm will probably find direct costing a more useful aid in the pricing decision than absorption costing.

Place for direct costing

Although one may be unable to find firms in a situation exactly like that described above, one may still find the analysis useful. To the extent that a firm must accept a price determined in the market place, direct costing better answers the question than does absorption costing.

The second type of firm definitely doesn't face the market-place-determined price because usually no

EXHIBIT II	
DIR Co. Product Price: Direct Costing	
Unit Variable Manufacturing Costs:	
Direct Material (2½ units x \$2.00/unit)	\$5.00
Direct Labor (3 hours x \$2.50/hour)	7.50
Variable Overhead (3 hours x \$1.00/hour)	3.00
Total Variable Manufacturing Costs per Unit	\$15.50
Variable Selling & Administrative Costs per Unit	2.50
Total Variable Unit Costs	\$18.00
Contribution Margin (\$29.00-\$18.00)	11.00
Price, obtained independently	\$29.00

The price leader must set a price. He would be served better by absorption costing in making the decision as it yields a price. The 'price follower's' decision, whether to 'accept' a price 'offered' for his product, is of a form better solved using direct costing.

market exists for its product. The novelty firm develops a product like the "hula hoop" or "super ball" or "frisbee." It must then, in effect, establish a market place for its novelty item. One might reason that the novelty firm management is definitely faced with a decision of what price to charge for its product. Management of this novelty firm has, however, found that a price recommended by marketing researchers is more realistic for its economic environment than a price developed by accountants. The management of the firm is faced with the need to evaluate the price presented by the marketing experts. The evaluation determines whether or not the novelty item is produced.

The evaluation presumably is based on the acceptability of the price recommended. In other words, should we accept the suggested price or not? This decision is clearly one of the type for which information provided using direct costing will be more useful.

A few introductory comments might help to make discussion of the last two types of firms clearer. Many industries today seem to be guided by a firm called a "price leader." The price leader's function is to set a price which other firms in the industry will voluntarily follow.¹ An increase in the price leader's price serves as a signal to the other producers that costs have increased to such a level that prices must be increased to protect the level of profits.² Since the leader's position is one existing only because of the voluntary acceptance of his price by others in the industry, one is faced with two different types of decision. One decision must be made by the price leader, the other by the price follower.

Looking first at the price leader, one can see that he must set a price. That firms do have the ability to set a price and make it stick

is well documented.³ The question is, then, what type of pricing decision must be made. Since the price leader is concerned with a price to protect profits, he is required to decide what price to set, not whether to accept a price. He would be served better by absorption costing in making the decision as it yields a price.

This solves the problem of the price leader. A decision is also faced by the "price follower."

Presumably he need not set a price. He need only review a price change made by the leader in his industry and decide whether to follow or not. His decision, should he "accept" a price "offered" for his product, is of a form better solved using direct costing.

In these last two cases, one can see that not only are firms in different types of industries faced with different decisions, but even firms in the same industry may be required to answer different questions.

The decision

Although some accountants may find explicit answers to pricing problems they face in this article, they are misguided if they attempt to fit all pricing decisions into the four "cubbyholes" reviewed above. Each firm has a slightly different economic environment and different factors influencing the price. Just as there is no example of the economist's "perfect competition," there also are no one or two pricing decisions all firms face. As accountants we should be aware of this. When management asks for financial information to aid in the pricing decision, we should stifle the urge to bring out our favorite absorption costing figures, or direct costing figures, or marginal costing figures, until we have answered for ourselves the question: What is management's pricing decision?

¹ Chamberlin, Neil W., *The Firm: Micro Economic Planning and Action*, McGraw-Hill Book Co., Inc., New York, 1962, p. 366.

² *Ibid.*, p. 365.

³ Galbraith, John Kenneth, *The New Industrial State*, Houghton-Mifflin Company, Boston, 1967, pp. 48-49.