SOURCES OF PROFITS ARE IMPORTANT FOR VALUATIONS

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Ask any business appraiser, who is not a CPA, and even some who are, about cost accounting, their eyes will glaze over and they will wonder what that boring activity has to do "value". We believe that an analysis of where a business earns its profits and which products or customers are reducing the bottom line is importance to the valuator.

A few years ago, a small manufacturing company in Massachusetts discovered its bestselling product line was eating away at the company's future, even though the financial statements showed the business was nicely profitable. This happened when, as part of preparing the business for sale, the company introduced Activity-Based Costing ("ABC"). Until then, management had no idea that a substantial portion of administrative expenses were attributable solely to that single product line.

Do the companies you value: sell more than a dozen or so products? Achieve annual sales of more than $3 million? Have customers with widely divergent buying patterns. If the answer to all three points is "yes", it is likely that some product or customer is sapping the strength of the firm and reducing its value.

All overhead ultimately comes from activity. Whenever somebody in an organization does something, it results in an overhead cost. Only by correlating all overhead activities, whether plant or administrative, with specific products and customers can management know what is actually happening and have reliable information on which to base pricing and production decisions.

Smaller companies usually take orders over the phone, written on paper forms and hand delivered to manufacturing; when the job is complete, another form is sent to shipping. If an error is discovered, the form is walked back to sales. Even if the order is entered into a computer for accounting purposes, paper documents are still often employed, and errors continue to be shuttled back and forth.

Firms pretty well know their direct costs, labour and materials, of every product line. Plant overhead is normally charged on the basis of the labour involved. If it is done at all, the basis of allocation of administrative costs is likely sales. This was fine when value was added mainly by the "horny hand of labour". Today, where knowledge and services are major contributors, it is essential to look at what is actually happening.

This conventional arbitrary allocation of overhead can totally confuse the cost picture of a product. Sometimes, the error is so large that managers might be better off if they had no information at all. We have all seen cases where companies trying to reduce losses reduce production of profitable items due to inadequate data. Some companies totally given up on overhead allocation; they just show a single line: SG&A (Selling General and Administration) expenses. This is crazy! The costs associated with different products and customers vary greatly, and it is essential for Management to find out what is happening.

Fortunately, since the introduction in the late 1990s of several sophisticated software programs, it is relatively easy for a company to establish the actual contribution of each product or customer by the introduction of an ABC system. In brief this involves five steps:

1. Define costs categories, such as, salaries, material, travel, occupancy and group General Ledger items;
2. Identify key processes and principal activities;
3. Establish the unit cost for each process or activity;
4. Determine the processes and activities involved in each product or customer;
5. Assign total costs to products or customers.

For example, order entry is a key process. It includes activities such as: typing order forms, checking customer credit and verifying delivery dates. The major component is people pushing paper and entering information into computers. Total costs can be established by adding the salaries and benefits of the related staff, to a figure for the use of equipment and office space. Divided by the total number of orders, this gives the unit cost. To assign the cost of the process to an individual product or customer, the number of related orders is simply multiplied by the unit cost.

It is essential to establish which costs are critical and which aren't. For order entry, the amount spent for occupancy is negligible and therefore could be either included on a "per employee", or "percentage of salary" basis.

Activity-based cost accounting is extremely complicated and unless a firm has the appropriate software and trained staff, the results are likely to be meaningless. However, the benefits are significant as shown by the following simplified hypothetical example.

"BrightBoys" software has developed and sells four office software packages for small business. The bestselling item is "WriteWell", a word processing program that is in version 6.0 and therefore has minimal direct costs but continuing enhancement R&D.

Management loved it and believed the situation, per unit, was as follows:

	$
Net Selling Price to Distributor	125
Costs	
Packaging, Manual & Disks	15
Marketing & Sales	25
Overhead allocated on basis of Sales	34
Direct R&D	16
	90
Profit Contribution	35
Pre-tax Margin	28%

Like most software companies, BrightBoys is not showing an overall loss, but management was concerned that it had a loss at the EBITRAD (Earnings Before Interest, Taxes, R&D, Amortization and Depreciation) level. They, therefore, hired a consultant and undertook an ABC analysis.

This demonstrated that management's belief in the high profitability of WriteWell was wrong. Apparently while the WriteWell was easily loaded on a stand-alone PC, the installation process for a LAN (Local Area Network) was complex and on average required one hour and fifty minutes of customer support time on the "free help lines" operated by BrightBoys.

The fully loaded unit cost of customer support, via the help- line was $30.00 an hour, resulting in an allocated customer support charge of $55.00 for 80% of the copies of the Software. This compares with the $7.00 included in the "Overhead Allocated on basis of Sales". In reality, WriteWell had Overhead Costs of $71.00 and a loss of $2.00 a unit.

ABC also allows management to see how much each class of customer is contributing, profit or loss. According to Professor Bala Balachandran, Director of the Accounting Research Center, Kellogg Graduate School of Management, Northwestern University, Illinois:

For most companies, 20% of their customers account for 200% of profits. The remaining 80% of customers actually lose money, which is how companies end up with their final 100%.

This enormous variance arises from such customer activities as: small orders, back orders for out-of-stock items, requests for special handling, late payments, need for repeated follow-ups, high sales call ratio, substantial customer support, rejects, returns, etc. Most firms do not have a clue as to how much they spend to meet these demands.

In many ways the acceptance of losses in certain areas of a business is similar to the propensity to be overweight found in much of the population. In either case, to do something about it, takes an effort of will and a change in behaviour. Human nature being what it is, neither management nor the individual is likely to take action until the situation becomes serious.

The purpose of ABC is to establish "resource usage" and focus management's attention on problem areas. It is based on average costs and does not differentiate between fixed and variable items; nor does it deal with resource supply. Therefore ABC cannot confirm that selling more of a particular, "highly profitable" product will actually lead to greater overall profits.

To the valuator, the profitability of different products and customers is important. Management's actions in either accepting or attempting to deal with the loss-making areas are significant. They influence not only the creditability of projections of future Net Income, on which we base our conclusions, but also on the risks considered when establishing the appropriate Capitalization Rate. Professor Balachandran states that 20% of customers generate 200% of profit. Consider a firm with 180 customers, of which 36 are profit making. The loss of one of these, representing 1% of sales, would likely reduce profits by at least 3% (1 divided by 36). Under these conditions, we believe that the Capitalization Rate should be higher than that of a firm that had dealt with its loss-making areas and had 80% of its customers generating profits.

Many managements use some form of EVG (Economic Value Generated) such as the copyrighted EVA, to establish bonuses and assess capital projects. EVG is the difference between EBI (Earnings Before Interest) after Tax and a "Capital Charge"; this is usually total invested capital (both Debt and Equity) multiplied by WACC (Weighted Average Cost of Capital).

Various studies have shown that numerous public companies have a negative EVG and therefore their business activities are not creating value for their shareholders. For example, one major international electronic organization, during 1999, announced at a shareholders' meeting that it expected to have a positive EVG in the year 2001. Other studies have indicated that the shares of US firms that use EVG as a management tool have tended to perform better than the general stock market.

In our view, one useful function of a valuator is to help Management of a firm enhance the position of the owners. Irrespective of whether it is a medical practice, Software developer, or cheese manufacturer, an early step is to use ABC to determine the profitable products and customers.

Once Management has determined how it intends to deal with loss-making areas, it is useful to establish the EVG of the profitable segments. To do this, the valuator must establish the capital involved in the profitable products and customers, as well as the proportions funded by Debt and Equity. From these figures an appropriate Capital Charge is calculated for each domain and the EVG determined.

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As well as being extremely helpful to the valuator, there is another potential benefit of ABC; some companies may obtain significant tax savings if they use ABC to determine taxable income.

For a manufacturing company, traditional cost allocations tend to "over-cost" high volume products that use disproportionately small shares of manufacturing activities and "under-cost" low volume products that use disproportionately large shares.

Major tax savings come when some products use large amounts of labour, (the most common plant-wide cost allocation method) but few of the ABC non-volume "drivers", such as: engineering, receiving, setup, packing, shipping and administration.

There will also be savings in the year of the change-over if the average inventory of over-costed products exceeds that of under-costed products. Additional savings can result from: increases in Overhead Costs, higher production rates and more favourable application of the "uniform capitalization rules" of the Internal Revenue Code Section 263A.

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