The Rule of 72:
Having the Assets to Support Future Sales

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One of the most interesting concepts in financial analysis is what is commonly called the Rule of 72. It states that the number of years required to double the value of an investment can be *estimated* by dividing the number 72 by the annual return on that investment. For example an investment with a 7.2% annual return would double in about ten years ($72 \div 7.2 = 10$).

This seemingly innocuous rule has some very important implications for distributors. Firms that produce a higher level of return on their investment than typical firms can begin to systematically build a larger asset base quicker than the typical firm. They can then use that asset base to generate higher sales.

This report considers how different rates of return result in very different businesses in the future. It does so by examining two specific issues:

- **The Different Rates of Return for Distributors**—An analysis of the long-term implications of different profit levels.
- **Moving to a Higher Return**—An examination of the requirements for moving to higher-profit levels.

The Different Rates of Return for Distributors

Exhibit 1 provides a comparison of a typical and high-profit distributor. To demonstrate the impact of profitability on sales potential over time, both firms are assumed to start with the same level of sales volume.

At present, the typical firm generates $20,000,000 in sales, operates on a gross margin percentage of 25.0% and generates $350,000 in after-tax profits. These results require a total asset investment of $5,000,000, producing an after-tax return on assets of 7.0%. Based upon the Rule of 72, the firm would double its asset investment in around 10.3 years if it reinvested all of its profits.

In contrast, at the bottom of the exhibit the high-profit firm generates the same sales, but produces a profit of $700,000 which yields an after-tax ROA of 14.0%. The Rule of 72 indicates it could double its asset base in only 5.1 years.

The final two columns of numbers track the performance of the typical and high-profit firm over time. The numbers intentionally assume no change in operating performance. This provides a clear view of the implication of different levels of profitability among firms with different profit levels..

The first column of projected results (Year 5) shows performance five years out. This is a very typical planning horizon for many firms. The final column shows results in year twelve. This simply rounds the 10.3 figure from the Rule of 72 calculation for the typical firm.

A comparison of the current numbers and the figures for year twelve presents some startling results. In the current year the high-profit firm has a profit that is 100.0% higher than the typical firm ($700,000 versus $350,000). However, by year twelve the difference has grown to 276.9%. The high-profit firm is systematically moving ahead of the typical one.

From a sales perspective, the typical firm has more or less doubled its sales volume from $20,000,000 to $39,343,027. At the same time the high-profit firm has the potential to grow to $74,144,426 in sales, an increase of 270.7%. Not only is the typical firm behind in terms of current profit, it is falling further behind in future sales potential and the additional profit those sales can generate.

There is no certainty that the higher sales number can be reached. The exhibit simply indicates what could be attained if profit levels remained the same and all additional profits were reinvested back into the business over time.

Clearly, the importance of being a high-profit firm is significant today. Its importance grows exponentially in the future. Typical firms need to plan to catch up to their high-profit competitors.

Moving to a Higher Return

In moving to a higher-profit level, there are three major concerns. All need to be address directly.

Benchmarking—Without comparison numbers from a financial benchmarking analysis, it is impossible for a firm's management to know if it is high-profit, typical or, even worse, low-profit. Essentially, the firm is flying blind with management hoping for the best.

Many associations and buying groups sponsor a benchmarking survey for their members. They present detailed results for the typical and high-profit firms. In addition, they typically provide insights into how the high-profit firms achieve superior results. Participation in the report should be an essential activity for every firm.

Management Education—At the senior management level in most distribution firms, there is a fairly clear idea about what really drives profitability. However, at lower levels of the management ranks this clear understanding gradually fades and maybe even disappears.

The problem becomes particularly acute when managers in different parts of the organization have their own unique ideas about what is important. When some managers are focused on sales generation while others are intent on cost control, conflict inevitably arise. Only a clear understanding of profit relationships can overcome these competing points of view.

Proper Planning—The role of planning in generating higher profit levels cannot be overstated. Unfortunately, too many firms continue to plan in a manner that does not ensure improved performance in the future. Those firms simply plan sales, gross margin and expenses then hope it all works out and profit increases. It seldom does. Profit must be planned.

Firms should at least investigate the concept of profit-first planning. This approach starts with a specific profit goal for next year and then works backwards through the income statement and balance sheet to determine how the goal can be reached.

Moving Forward

Firms with different levels of profitability (as measured by Return on Assets) face very different prospects for the future. Virtually every firm can grow its sales by reinvesting modest profits. However, firms with higher profit levels can reinvest a much large amount. Slowly over time, the high-profit firms achieve a critical mass that other firms cannot reach.

Firms need to plan for higher profit and then ensure that everybody in the firm knows where the firms is going. All of this needs to be supplemented with a strong dose of financial benchmarking.

About the Author:
Dr. Albert D. Bates is a Principal at the Distribution Performance Project. That organization's web site: distperf.com has numerous free tools that distributors can use to improve profitability. His recent book, Breaking Down the Profit Barriers in Distribution is the basis for this report. It is a book that every manager should read. It is available in trade-paper format from Amazon and Barnes & Noble.

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Exhibit 1
Two Different Growth Profiles
For a Typical and High-Profit Distributor

Typical Firm Income Statement	**Current Results**	**Year 5**	**Year 10**
Net Sales	$20,000,000	$28,051,035	$39,343,027
Cost of Goods Sold	15,000,000	21,038,276	29,507,270
Gross Margin	5,000,000	7,012,759	9,835,757
Total Expenses	4,500,000	6,311,483	8,852,181
Profit Before Taxes	500,000	701,276	983,576
Income Taxes (30% of PBT)	150,000	210,383	295,073
Profit After Taxes	$350,000	$490,893	$688,503
Total Assets	$5,000,000	$7,012,759	$9,835,757
Return on Assets (After Taxes)	7.0%	7.0%	7.0%

High-Profit Firm Income Statement	**Current Results**	**Year 5**	**Year 10**
Net Sales	$20,000,000	$38,508,292	$74,144,426
Cost of Goods Sold	14,750,000	28,399,865	54,681,514
Gross Margin	5,250,000	10,108,427	19,462,912
Total Expenses	4,250,000	8,183,012	15,755,691
Profit Before Taxes	1,000,000	1,925,415	3,707,221
Income Taxes (30% of PBT)	300,000	577,624	1,112,166
Profit After Taxes	$700,000	$1,347,790	$2,595,055
Total Assets	$5,000,000	$9,627,073	$18,536,107
Return on Assets (After Taxes)	14.0%	14.0%	14.0%