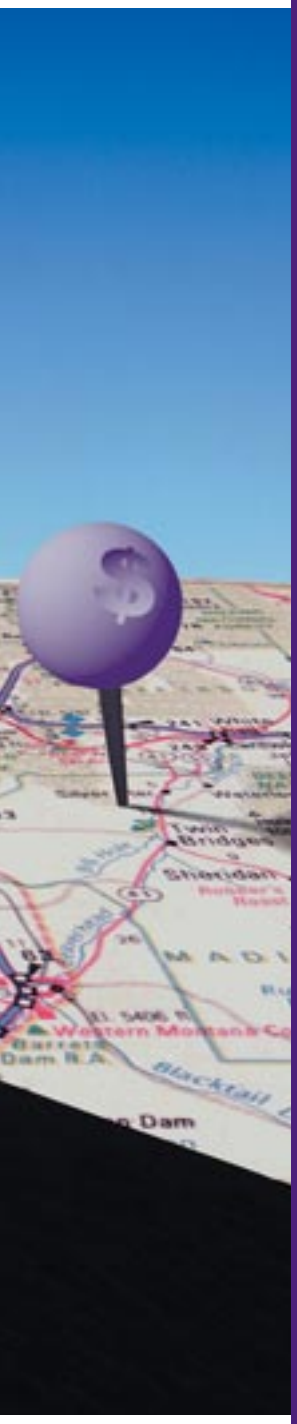
Performance Measurement:

The Guideposts on Your Road to Success



BY JERRY HENDERSON

For the construction industry, the past two years have been the most difficult period since the early 1980s. However, as 2004 gets underway, there is hope that the worst is over.

In many ways, the start of the new year and the prospect of an improved economy create opportunities for new beginnings. So, now is a good time to review and refocus your company's performance goals.

Over the past few years, all of us on the financial side of construction have helped carefully steer our companies down a rocky road.

Now, we are embarking on the next leg of this journey. Your actions from this point on will help determine if your company moves forward on the road to success, or veers off course instead.

As with any journey, certain elements must be present for the trip to be successful. One is a travel plan that estimates the resources needed to reach your goals. The foundation of this plan is a road map marking your expected course of travel. Only by charting your course can you estimate the investment of time, money, and effort needed to reach your destination. A second element necessary for a successful journey is a method to regularly measure progress – guideposts and mile markers to gauge your *actual results* against your *intended progress*.

So, how do these elements translate into specifics for your company? The road map and travel plan are the written goals, developed and used by upper management to plan your company's future. Admittedly, these written goals are rarely achieved exactly as forecast. However, their benefit lies in the fact that *management undertook a coordinated effort to collectively cast the vision* of where the company should be headed, *then identified and planned the performance* needed to reach that destination.

A wise man once said, "Plans are nothing, but planning is everything!" The company that is committed to planning its future is much more likely to achieve its potential than the company that does not undertake this effort. That is why performance planning is a very important process that should be taken seriously by management. Moreover, as a financial manager, you are in a unique position to champion this process for your company.

The cornerstone of the performance planning process is the ability to *quantify* a company's targeted performance over the short- to mid-term. By quantifying performance goals, the plan expresses the aim of management in *tangible* form and

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provides an *objective, measurable means of evaluating results*. Actual progress can and should be measured regularly against the planned progress.

So, how do you construct a performance measurement system?

The Basic Elements

Certain elements of a performance measurement system are so critical to the foundation of your plan that we must address them at the outset. *First, your financial data must be reliable.* Achieving reliable financial data is a subject unto itself, but be careful not to take this element for granted. You must ensure that all internal financial information:

- is adjusted to reflect proper cutoffs of revenues and expenses,
- contains proper allowances and reserves, and
- properly classifies assets and liabilities as to current vs. long-term status.

Intertwined with financial data is job cost data. *Second, you must have a system in place that accurately captures job cost data by project phase.* To ensure its integrity, this data should be reconciled regularly with the G/L to ensure that a closed loop exists between the job cost and G/L systems. Contract estimates must also be routinely updated to ensure that revenue earnings estimates are accurate.

Third, your financial and job cost data must be available to management in a timely manner and useful format. I would suggest that interim month-end reports be available to management no later than 20 days after the end of each month, with 10 days after the end of the month being the ultimate goal.

"What is the one overriding goal that equates to success for this company?"

What to Measure

When establishing (or refining) your system of performance measurement, you should begin by asking this fundamental question:

What is the one overriding goal that equates to success for this company?

In other words, determine what the owners ultimately want to achieve. Most likely, the goal is either a net income target or a prescribed market value for the company that can be measured over a series of years.

For example, the goal could be to achieve a net income of $2.5 million by the end of 2006, when the net income at the end of 2003 was $1.2 million. Or it may be to achieve a market value for the company (net of debt) of $10 million within the same time frame.

Either way, the overriding goal should be one that *expresses a mid-term target for achievement* within the targeted time frame.

All other measures and comparisons for the company flow from your overriding goal. *Therefore, this goal should be achievable, but not easily attainable.* It must push managers to perform on all levels in order to reach the set targets.

That's why your financial information must have a high degree of integrity, to ensure that the results are not easily manipulated.

The best way to chart the course for achieving the overriding goal is to *formally forecast the desired results on a quarterly basis in a comprehensive financial model.* While this forecast ultimately expresses the overall target, it provides management with guideposts to measure progress along the way.

It also allows management to *recognize in a timely manner* if alternate courses should be followed to achieve the goal, while maintaining compliance with loan covenants or bonding requirements.

In this article, we will look at performance measurement in two broad categories, financial and operating, and define the indicators you should be measuring. In the financial section, we will also devote particular attention to those ratios relevant to the "Best in Class" designation in *CFMA's 2003 Construction Industry Annual Financial Survey.*

As you begin to compare your organization, remember: The individual measures are not the goal; they are the guideposts on the road to successfully achieving your company's overriding goal.

Financial Performance Measurement

Your company's performance should be evaluated against the following three criteria:

1) *The company's overall plan and forecast.* You want to know if your actual results are matching up to your expected results and, if not, where the differences lie.

2) *Industry benchmarks.* You want to compare your results against those of others in your industry. That's why CFMA's Annual Financial Survey is such an indispensable tool for contractors.

   With it, you can compare your company to others in its industry specialty using the most meaningful and recent information available, and you can also benchmark your company against the Best in Class contractors.

   

   Besides the Best in Class data, the 2003 survey contains composite results, as well as results by contractor type, size, and geographic region, so you have the opportunity to really see how your company stacks up under several different relevant categories.

   In establishing your performance targets, you may refer to the category that best suits your company or to the industry composite figures.

   The worksheet at the end of this article will allow you to compare your company's performance and target ratios to others in your specialty or to the industry as a whole.

3) *Established targets set by your lenders or bond underwriters.* If you are not sure what those targets are, do some homework to learn what each expects for your company.

   These targets tend to change periodically; currently, both lenders and bond underwriters are both using very strict underwriting standards – so don't assume that what was acceptable in the past is still acceptable now.

Profitability Measures

Profitability measures quantify certain key elements of the income statement in order to evaluate the profitability of the business. These ratios are good *short-term indicators* of financial performance and are typically given a higher weight by lenders than by bond underwriters, though recurring subpar performance will certainly create concern within your bonding company. These measures include:

Gross Margin (GM) – This is one of the few measures that can be quantified on both an individual job and overall company basis. GM indicates the difference between revenue and all construction-related costs. It tells you the portion of earnings left to cover SG&A expense, taxes, and profit.

The key to accurately measuring GM at the individual job level is to ascertain that the *allocated* or *applied* overhead is representative of actual overhead, including inter- or intra-company equipment rental pools and all other indirect overhead.

Return on Sales (ROS) – This is the basic measurement of pre-tax operating profits before income taxes. In the 2003 survey, ROS is shown as the percent of "Net Earnings (Loss) before Income Taxes." ROS is applicable only on a company-wide basis and reflects the company's ability to generate profit on contract volume. It should not be confused with return on equity, discussed next.

Return on Equity (ROE) – This is a Best in Class measure in the 2003 survey. ROE indicates the actual return on the investment, allowing owners to compare the results of their investment in your company against other alternative investments. ROE is measured by dividing net earnings by total net worth or total (average) stockholders' equity. In the 2003 survey, ROE was 33.5% for Best in Class companies vs. 17.0% for all companies.

Care should be taken in evaluating this ratio for a number of important reasons. For example, S-corporation earnings do not always reflect a provision for income taxes because the tax liability is often reflected through dividends. (See page 227 of the 2003 survey for financial data

FOR ADDITIONAL FINANCIAL PERFORMANCE INFORMATION

For more information on ratios, consult *CFMA's 2003 Construction Industry Annual Financial Survey,* which contains invaluable information for assessing your company's financial performance, as well as certain aspects of operating performance.

For additional information on analyzing and interpreting financial data, I recommend *Analysis for Financial Management* by Robert C. Higgins, published by McGraw-Hill/Irwin.

for S corporations). ROE calculations should be adjusted to take this into consideration. Significant treasury stock transactions (such as mandatory redemptions under a buy-sell agreement that are funded with a seller note) can also distort the ROE calculation.

Return on Assets (ROA) – Another Best in Class measure in the 2003 survey, ROA indicates the profit generated by the total fixed assets employed. A higher ratio reflects a more effective use of company assets. ROA is measured by dividing net earnings by total assets. As with ROE, care should be taken when calculating this ratio for S corporations and other pass-through entities. In the 2003 survey, ROA was 9.2 % for Best in Class companies vs. 5.1% for all companies.

Leverage Ratios

Leverage ratios measure a variety of indicators, and are used to determine how well the company has leveraged its resources in order to provide the best overall return. In order to evaluate this aspect of financial performance, these ratios utilize data from both the balance sheet and income statement. Lenders and bond underwriters rely on leverage ratios when evaluating a company's credit risk. Here are the key ratios:

Debt to Equity – This measure indicates the liabilities of a company as a multiple of its equity and has long been a favorite measure of lenders in setting loan covenant guidelines. Generally, this measure should not exceed 3.0 without a plan to bring it back within this limit over the short- to mid-term. However, at peak operating cycles, it is possible for this ratio to exceed 3.0, especially in smaller companies.

In recent years, lenders have focused not just on debt to equity, but also on debt to *tangible* equity. Tangible equity is defined as total equity minus all intangible assets, such as capitalized non-compete agreements or leasehold improvements.

Funded Debt to EBITDA – The "darling" measure of lenders, this is the amount outstanding on borrowing arrangements as a multiple of EBITDA (earnings before interest, taxes, depreciation, and amortization). EBITDA has also become the yardstick for determining value in the acquisition of many privately held companies.

Believed to be a good indicator of a company's ability to repay its obligations to the bank, this calculation is a variation of other types of coverage ratios, such as "Times Interest Earned" or "Times Burden Covered."

While many lenders consider 2.5 acceptable, this ratio tends to be in the neighborhood of 1.1 or less for the construction industry. Bear in mind, this calculation can also vary significantly for a contractor that borrows heavily against a line of credit during peak operations, but pays the line off by the end of the normal operating cycle.

"By **QUANTIFYING PERFORMANCE GOALS,** the plan expresses the aim of management in tangible form and provides an **OBJECTIVE, MEASURABLE MEANS** of evaluating results."

Asset Turnover – This measure is calculated as revenue as a multiple of total assets and reflects how efficiently assets are being employed in the process of generating revenue. Generally, an asset turnover of less than 1.0 is unacceptable in all instances (except *possibly* during the start-up phase of a business).

Months in Backlog – This measures the ratio of signed commitments for work to be performed compared to the revenue earnings for the most recently completed 12 months. Its sole purpose should be to assess the amount of work needed to fill the pipeline for the upcoming 12 months. While months in backlog is a good overall measure, it fails to consider the specifics of when the work has to be performed.

Liquidity Ratios

Liquidity ratios indicate a company's ability to finance growth internally, to fund fixed expenses during seasonal lulls or to ride the rough road of an economic downturn. Key liquidity ratios include:

Current Ratio – This ratio reflects current assets divided by current liabilities and indicates the number of times such assets can be used to satisfy those liabilities. Current liabilities include amounts outstanding on lines of credit for which the collateral consists of receivables and job progress payments (regardless of maturity) and exclude all short-term borrowings to be refinanced as long-term.

"the 6 Whys"

Go at least six levels deep in asking

WHY

a variance occurred. (See example at right.)

Your company's forecasted gross margin is 15%.
The actual gross margin is 10%.

WHY?

Direct labor costs are 30% greater than originally planned.

WHY?

Actual productivity is below planned productivity.

WHY?

25% of labor time is spent "waiting."

WHY?

Materials were rarely delivered to the jobsite when needed.

WHY?

The vendor failed to meet clearly communicated and agreed-upon ship dates.

WHY?

The vendor is unreliable.

As you can see in this example, even though the root problem appears to be a labor issue, a vendor's failure actually caused the problem. Only by asking "why" at least six times will you get to the bottom of a problem and ascertain its true root cause. As you do this, you will identify operating performance measures – key indicators for your business – that will help your company achieve success.

Generally, a current ratio of at least 1.35 to 1.0 should be maintained. A goal of 2.0 to 1.0 should be targeted in order to provide a cushion needed to weather more than just routine seasonal lulls.

Purchasing equipment with working capital funds will quickly reduce the current ratio; therefore, equipment purchases should generally be refinanced with long-term borrowing whenever possible.

Working Capital Turnover – This ratio shows the amount of revenue being generated from each dollar of working capital available. Generally, the higher the working capital turnover, the better – though certain outside limits exist.

For example, a ratio in excess of 30 to 1 indicates that working capital is being stretched beyond its reasonable limits and that a higher degree of net working capital should be in place.

Efficiency Ratios & Measures

Efficiency ratios and measures are designed to indicate how well the company is managing certain resources. These ratios, while useful to lenders and bond underwriters, are rarely used as the sole basis in denying a credit request.

Instead, these measures should be seen as leading indicators for the health of the business. So, if ratios in other areas seem to be acceptable, review these ratios to see if they are forecasting certain trends that will affect your business over the next few months.

Because of this, efficiency ratios and measures are primarily beneficial to management and should be routinely monitored. Some of the key efficiency ratios and measures are:

Days in Accounts Receivable (AR) – This Best in Class measure in the 2003 survey reflects how many days it generally takes to collect receivables. Care should be taken to exclude long-term retainage not expected to be collected in the current operating cycle.

This measure can provide a wealth of information and should definitely be part of your performance measurement system. The following possible interpretations show why:

- An increase in this measure may indicate specific collection problems before they become apparent to management.
- An increase not attributable to specific customers may indicate a general cash flow stress in your customer base, which could be an indicator of future construction spending patterns.
- An increase could indicate the erosion of credit policy within your company, which should be reviewed and strengthened, if necessary.
- An increase could also indicate that aggressive overbilling practices may not be achieving the desired benefit.

In the 2003 survey, average days in AR were 38.4 days for Best in Class companies vs. 47.9 days for all companies. For a Best in Class company, this represents an additional $26,300 cash on hand for every $1,000,000 in annual revenues.

Days in Accounts Payable (AP) – This indicates how many days it takes to pay vendors and subcontractors. As with days in AR, exclude long-term retainage payables from your calculations. Though payment terms will vary based on different jobs and/or negotiations with specific vendors, this measure can be used as an overall guide in assessing how well your company is managing its payables. Your goal: Days in AR should be shorter than days in AP in order to contribute to a positive, operating cash flow cycle.

Fixed Asset Ratio – This Best in Class ratio in the 2003 survey measures the level of stockholders' equity invested in net fixed assets. A higher ratio could indicate that a disproportionate amount of the company's own funds are tied up in fixed assets, meaning that the company could lack the liquidity needed to fund current operations. In the 2003 survey, the fixed asset ratio was 20.6% for Best in Class companies vs. 38.8% for all companies.

Operating Performance Measures

You now have a fairly thorough understanding of *financial performance* measures. However, these comprise only half of a comprehensive, overall performance measurement system. The other half consists of *operating performance* measures. These go beyond the data captured in the G/L and look at other operating statistics in order to generate important performance information. Operating performance measures generally flow from financial performance measures and provide a more detailed analysis of specific areas.

Prescribed operating performance measures do not exist in the same generally accepted format as financial performance measures. Moreover, the number of operating performance measurements is limitless. For these reasons, most companies develop the operating side of their performance measurement system to best suit their own needs.

In reality, your company's operating performance measurement system will continually be refined as you focus on ever-improving operations. For now, let's look at some broad areas for you to consider.

Key Operating Indicators

The key to determining operating and financial performance measures is the same: You want indicators that help your company reach its goal. However, the following areas should ***always*** be measured because problems in any of these will affect your bottom line – and the future profitability of your company:

- Labor and equipment productivity
- Subcontractor performance
- Vendor and customer quality
- Financial and job cost reporting performance
- Jobs completed ahead of schedule or with minimal punchlist items
- The cost of processing certain types of transactions
- The cost of performing contracts on certain sized jobs
- Productivity of project managers and crews

Certainly, this list could go on and on. However, the key here is to develop measures that directly relate to the achievement of your company's overriding goal. There are endless ways to measure performance within each of the areas mentioned above. So, start with some basic measures and work forward.

Conclusion

The road to success is strewn with the remains of businesses that began with big dreams and high expectations. None of those businesses planned to fail, but many of them failed to plan their course for success, ending up as victims in a competitive world. In addition, many others have never come close to reaching their full potential because they didn't set aggressive goals and measure progress along the way.

Right now, at the beginning of this new year, you have the opportunity to pull your management team together to focus on a comprehensive plan for success. Remember to measure your progress regularly along the way, using the key performance indicators as your guideposts. And, as you go, celebrate your successes, learn from your mistakes – and best of luck in your journey! BP

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JERRY HENDERSON is a Partner at BKD, LLP in Bowling Green, KY. He has been providing accounting, consulting, and auditing services to the construction industry for the past 13 years. He received a BS in Accounting from Western Kentucky University, also in Bowling Green.

Jerry, a frequent contributor to *CFMA Building Profits*, is the editorial chair for BKD's newsletter, "Blueprint," and has published in various other trade publications, including the *Journal of Construction Accounting and Taxation*.

Jerry belongs to CFMA's Kentuckiana Chapter and is a former member of CFMA's Accounting & Reporting Committee. He is a council member for the ABC of Kentucky, and is a member of the AICPA and the Kentucky Society of CPAs.

Phone: 270-781-0111
E-Mail: jhenderson@bkd.com
Web Site: www.bkd.com

Snip It
Clip It

PERFORMANCE MEASUREMENT
WORKSHEET

MEASURE	FORMULA	CFMA COMPOSITE	TARGET/ACTUAL
Gross Margin (GM) (%)	$\frac{\text{revenue – contract costs}}{\text{revenue}}$		
Return on Sales (ROS)	$\frac{\text{pre-tax (or net) income}}{\text{revenue}}$		
Return on Equity (ROE)	$\frac{\text{net earnings}}{\text{total net worth}}$		
Return on Asset (ROA)	$\frac{\text{net earnings}}{\text{total assets}}$		
Debt to Equity	$\frac{\text{total liabilities}}{\text{total net worth}}$		
Funded Debt to EBITDA	$\frac{\text{short and long-term debt}}{\text{earnings before interest, taxes, depreciation, and amortization}}$		
Asset Turnover	$\frac{\text{revenue}}{\text{total assets}}$		
Months in Backlog	$\frac{\text{backlog}}{\text{revenue/12}}$		
Current Ratio	$\frac{\text{current assets}}{\text{current liabilities}}$		
Working Capital Turnover	$\frac{\text{revenue}}{\text{current assets – current liabilities}}$		
Days in Accounts Receivable	$\frac{\text{net accounts receivable x 360}}{\text{total revenue}}$		
Days in Accounts Payable	$\frac{\text{accounts payable – retainages x 360}}{\text{total contract costs}}$		
Fixed Asset Ratio	$\frac{\text{net fixed assets}}{\text{total net worth}}$		