The Financial Supply Chain

Supply chain management has the potential to provide higher returns to shareholders. Yet few companies use it to manage overall financial performance.

One of the greatest challenges companies face today is delivering a competitive return to shareholders. Customer demands, competition, labor costs, and operating environment volatility drive down return on capital (ROC). For example, the average ROC has dropped to 6.3 percent in 2002 from 9.5 percent in 1997 for a global index of approximately 1,500 manufacturers, distributors, and retailers. Much of this decline is attributable to the general downturn in the global economy in 2001 and 2002. However, from 1997 through 2000 – a period of general economic prosperity – ROC dropped 50 basis points, representing a $40 billion decline in annual operating cash flow for these companies.

Supply chain management (SCM) has the potential to improve the three key drivers of financial performance – growth, profitability, and capital utilization. For example, a recent study explored the financial benefits of collaborative planning, forecasting, and replenishment (CPFR) for several companies, including Procter & Gamble, Wal-Mart, Sara Lee, and Nabisco. The study found that sales increased 12 percent on average from lower stock-out losses, improved promotional planning, and increased service levels. Inventory and related expenses decreased 20 to 40 percent as a result of lower safety stock because of greater confidence in the forecasting and planning process, and there was a 3.5 to 7.5 percent decrease in production capital requirements as a result of better scheduling.

Knowledge of Financial-SCM Connection Lacking

Despite SCM’s potential, relatively few companies utilize SCM as a tool to drive financial performance. Failure to make the financial-SCM connection is driven by several factors.

First, many C-level executives continue to view SCM as a tactical back-room cost-center activity. Only about one-third of SCM’s most senior managers report to their company’s C level. A much smaller percentage actually sit on the executive committee. Consequently, the C level may fail to fully appreciate SCM’s tactical and strategic use for managing financial performance. Bob Carbo recommends the establishment of a supply chain executive council composed of senior executives to align the organization from the top down to achieve best SCM performance.

Second, most SCM professionals do not speak the language of finance. Hence, they lack the ability to link SCM to key financial metrics and to articulate how SCM drives financial performance.

Third, SCM drives performance throughout the enterprise. Therefore, SCM strategic and tactical decisions cannot be made in a vacuum. Yet most scorecards and analyses of SCM initiatives are incomplete, as they are not from an enterprise-wide perspective. Decisions on items such as modes of transportation, sourcing, and replenishment are often based solely on operating expenses – and many times not even total SCM operating expenses – and omit the impact on inventory, warehousing requirements, and possible stock-out losses. If an enterprise-wide perspective is not adopted, the real value of SCM will not be achieved.

The Role of the CFO

The CFO must take a leadership role in educating C-level executives and others on the financial-SCM connection. The CFO has the requisite financial acumen to link business processes, activities, and tasks to key financial metrics and takes an enterprise-wide perspective. Increasingly, CFOs are at the forefront of translating information from tools such as business intelligence.

Making a Financial-SCM Connection

It is recommended that the CFO use a top-down approach. The top-down approach comprises three steps:

Step 1: Calculate Value of Gaps In Key Financial Metrics

SCM drives key financial metrics such as revenue growth, percentage cost of goods sold, and days in
To communicate to the organization the need to reduce DII. The values of the gaps may be based on benchmarks from competitors, industry aggregates, historical performance, and aspirations derived from business intelligence tools. The value of the gaps can be measured using a variety of value-based financial measures such as free cash flow, economic profit, and stock price. It is strongly recommended that whatever metric is used, it should meet the following criteria:

- Used to reward senior managers;
- Easily understood by many managers throughout the organization; and
- Related to shareholder value.

The values of the gaps are an effective means to communicate to the organization the need for change and the potential value of improved SCM. For example, communicating that closing a 10-day gap in DII is worth $100 million in cash flow and can potentially add $1 per share in stock price is likely to generate greater motivation for change compared with the strategy of simply announcing the need to reduce DII.

**Step 2: Link Gaps in Financial Metrics To SCM Business Processes and Strategies**

Gaps in financial metrics are driven by unique company factors such as sales mix, pricing strategies, and outsourcing. The next step in the top-down approach is to link gaps in financial metrics to SCM-related business processes and strategies. A gap in profitability related to percentage cost of goods sold, for example, can be mapped to an SCM-related process such as distribution and logistics, which, in turn, is linked to a key activity such as warehouse management. Warehouse management is related to tasks such as receiving, put-away, pick, pack, and ship, and to key performance indicators (KPIs) such as labor costs, average time per pick, and pick accuracy. This mapping provides a better understanding of the cause-and-effect relationships between SCM business activities and financial performance.

**Step 3: Map SCM Initiatives to Financial Performance Gaps**

The information provided in steps 1 and 2 is used as the foundation for exploring SCM solutions that improve the SCM-related business processes and strategies underlying the gaps in the key financial metrics. This provides a logical methodology for identifying specific areas of opportunity. It also provides a disciplined approach for estimating the monetary benefits and understanding the critical success factors and risks of SCM solutions required for building a business case.

Improvements in SCM business processes and strategies typically cannot completely close financial performance gaps. But for many companies, it can make a significant contribution.

**Top-Down Approach Example**

The following is an example of the top-down approach to making the financial-SCM connection.

The results in Figure 2 are based on the consolidated operations for a publicly traded appliance manufacturer. The key financial metrics are compared to those of two competitors. Step 1 often provides the most powerful insights when applied to lines of business. A common impediment to analysis at the line-of-business level is the lack of credible financial metrics. However, advanced cost accounting systems and business intelligence are making strides in providing more credible financial metrics and benchmarks.

The gaps in financial metrics are valued using first-year annual cash flow (before-tax) and the potential impact on shareholder value—present value of after-tax, long-term cash flow. The present value of the long-term cash flow gap is also expressed as a potential value per share. Again, it is recommended that the value of the gaps be expressed in terms of measures that are used to reward senior managers, are understood by many throughout the organization, and are linked to returns to shareholders.

The differences in financial metrics are in part attributable to variations in sales mix, pricing strategies, outsourcing, accounting practices, and other factors not related to inefficiencies in business processes or effectiveness of business strategies.

Cost of goods sold as a percentage of revenue is 74.6 percent for the target company and 73.1 percent for the benchmark competitor. The chart shows that the company's percentage cost of goods sold is 98 percent effective (73.1 percent divided by 74.6 percent) compared to the benchmark company. Focusing only on the percentage effectiveness, which is a common practice in many benchmarking studies, provides limited motivation to explore solutions to reduce these expenses. However, valuing the gap provides different insights and motivation for change.

Reducing cost of goods sold as a percentage of revenue to the benchmark of 73.1 from 74.6 percent adds $205 million to first-year cash flow and $1.3 billion to market value holding all other factors the same. To put this in perspective, the company's actual funds from operations and market value are $905 million (not shown in Figure 2) and $5.688 billion, respectively. Consequently, even closing 10 percent of the total cost-of-goods-sold gap with improved SCM practices would make a significant contribution.

The results also indicate several other areas to explore for improvement with SCM initiatives. The company's selling, general, and administrative expenses as a percentage of revenue is 17.6 percent compared to the benchmark of 15.8 percent. The chart shows that percentage selling, general, and administrative is 90 percent
Fill rates, order completeness, shipment integrity, and proof of delivery. For the target company, an improvement in these areas that reduced DSO by only one day would add $35 million to cash flow and market value.

Using the value of the gaps in the financial metrics as the motivation for change, the target company would begin investigating potential gaps in SCM-related business processes such as:

- Distribution and logistics;
- Forecasting;
- Demand planning;
- Procurement;
- Production planning;
- Order fulfillment;
- Transportation management; and
- Warehouse management.

Gaps in business processes, in turn, are linked to related activities, tasks, and KPIs. Gaps are used to explore SCM solutions such as:

- Collaborative forecasting;
- Strategic network optimization;
- CPFR;
- E-procurement;
- Advanced planning;
- Vendor-managed inventory; and
- Strategic outsourcing.

**Conclusion**

Supply chain management has the potential to help provide higher returns to shareholders. Yet only a small percentage of companies use SCM to manage overall financial performance. The CFO must take a leadership role in making the financial-logistics connection. It is recommended that the CFO make this connection using a three-step, top-down approach that: benchmarks key financial metrics and values gaps; maps gaps to SCM business processes, activities, and KPIs; and uses this information to explore and prioritize initiatives to improve SCM business processes and strategies.

It is also recommended that valuation of gaps in key financial metrics be extended to SCM-related information found in many business intelligence tools. These tools often provide detailed information at the activity and KPI level. Gaps in these activities and KPIs can be valued similar to the approach shown in Figure 2 and used to prioritize areas that warrant further investigation.

Finally, improving most SCM professionals’ financial acumen is a critical factor in making the financial-SCM connection. SCM professionals must understand how SCM business processes and strategies impact key financial metrics and contribute to returns to shareholders.

**Endnotes**