BENCHMARKING BEST PRACTICES

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(This is an ongoing column in The Journal, which is intended to give a brief view on a potential topic of interest to practitioners of business forecasting. Suggestions on topics that you would like to see covered should be sent via email to llapide@mit.edu).

My advice to those contemplating benchmarking is to make sure they don’t automatically assume that a simple apples-to-apples comparison can be made among organizations. Results from a benchmarking exercise require careful analysis to understand fully what can be gleaned from the information. This is especially the case when it comes to Business Process Benchmarking. (See my column in the Fall 2002 issue of the Journal of Business Forecasting that discusses this and the two others forms of benchmarking — internal and external benchmarking).

Business Process Benchmarking entails managers visiting other companies for extended site visits to get an in-depth look at how they are doing things. In this way, they can learn about the best business processes that are in place at the other companies, with the intent of replicating them in some way. However, when it comes to trying to replicate another company’s best practice, you have to be careful and evaluate whether it is really right for your company. Many have visited supply chain leader companies, such as Dell and Toyota, only to find that the best business practices at these lead companies will not make sense for their firm nor can such practices be replicated in their company’s business environment. This is because so-called “best business processes” are not necessarily best for everyone else. In addition, while they may be best for a company using them today, they may not be best for the same company in the future, as its competitive business environment changes.

That said, this does not mean that benchmarking best business practices is not useful. The key to learning something from a best business process is to understand why it is beneficial to the company using it. An important question to address is: How does the best business practice add value to the company using it? In this regard, as will be discussed later, this means identifying the underlying operating principles being leveraged by the best business practice. The underlying principles may prove effective in another business environment; however, the business practices or processes used to enable these principles might be drastically different from those used at the benchmarked company.

MIT SUPPLY CHAIN 2020 PROJECT

At MIT we are engaged in Supply Chain 2020 (SC2020), a multi-year project to identify the underlying factors and principles that can lead to successful supply chains out to the year 2020. We recently completed Phase I (http://www.supplychain2020.net), which was focused largely on understanding what makes supply chains tick. This project also has started to identify the underlying principles that are being leveraged by successful or excellent supply chains run by companies such as Dell, Wal-Mart, and LimitedBrands to gain competitive advantage. Twenty-one (21) company supply chains in nine (9) industries were researched qualitatively, and twenty-five (25) quantitative studies were analyzed to assess how company performance is impacted by Supply Chain Management (SCM).

The qualitative research delved into each industry’s drivers and challenges, and the various supply chain responses to them. Supply chains of successful companies were profiled to identify the important linkages that exist among competitive strategies, operating models,
operational performance objectives, and business practices.

While excellence is a very subjective term, the research supported the premise that an excellent supply chain must do four things:

1. Support, enhance, and be an integral part of a company’s competitive business strategy

2. Leverage a distinctive supply chain operating model to sustain a competitive edge

3. Execute well against a balanced set of competitive operational performance objectives (That is, in which all customer-facing and internal Key Performance Indicators or KPIs are aligned to achieve the competitive positioning desired — e.g., to support a lowest cost, highest quality, or fastest delivery strategy)

4. Focus on a limited number of tailored business practices that reinforce each other to support the operating model and best achieve the operational objectives (For example, a few truly innovative practices — such as customer segmentation and demand shaping — that are surgically-focused on achieving KPI targets)

While these four characteristics of excellent supply chain companies sound relatively straightforward and easy to put in place, they are not. It takes companies years to mesh the elements together, as well as a great deal of effort to evolve them as the competitive landscape changes over time.

Dell’s leading supply chain is the product of many years of work as Dell has become the leading low-cost provider of commoditized PC and other electronic components by focusing on operational efficiency in a build-to-order model and speed in a direct-to-customer operating model. Wal-Mart’s successful supply chain helped it overtake Sears and others by providing cost-conscious retail shoppers with everyday low prices. But it took several decades to accomplish it. Furthermore, Wal-Mart did this by creating and executing with a passion for continual improvement in the efficiency of its logistics and distribution operations, relying heavily on technology along the way. The Toyota Production System (TPS), which has been the lynchpin of Toyota’s successful supply chain over a couple of decades, has helped it grow into a global automotive powerhouse by keeping quality high and costs low.

BEST PRACTICES ARE NOT NECESSARILY BEST

The elements of the Dell, Wal-Mart, and Toyota supply chains are well-known, so why can’t competitors and others replicate them and achieve the same success? Haven’t their successes proven that the practices they use are best? The answers are generally no.

As described earlier, a successful supply chain’s practices need to tie to a company’s competitive strategy, operating model, and performance objectives; and the practices themselves must fit together by being consistent and reinforcing in order to yield performance that is more than the sum of the parts (that is, ‘1+1 ≠3’ rather than ‘1+1=2’). The practices used by the above successful companies give them their competitive edge, so if a competing company were to merely implement the same strategies, that company would not gain a competitive edge. Moreover, it is highly unlikely that these practices would provide a competitive advantage to a company in an industry outside those of these supply chain leaders.

E VOLUTION OF THE BEST PRACTICES LABEL

The term ‘best practices’ appears to have evolved in SCM because it is a relatively recent discipline that deals with new paradigm shifts in integrating operations at adopting product comp-
A/B/C Segmentation: Used in forecasting, A/B/C Segmentation is often termed a best practice. As a form of Value-Based Segmentation, it divides various elements within a supply chain (such as customers and products) using value-based criteria (such as sales and margin contribution). Each segment in the supply chain is managed using a different business process tailored specifically for it. The underlying operating principle being leveraged by this practice is the '80-20 Rule.'

In forecasting, A/B/C Segmentation involves segmenting the product line into three segments based on product sales where ‘A’ items are the high sellers, ‘B’ items are the medium sellers, and ‘C’ items are the slow sellers. Under an A/B/C forecasting process, each segment is managed in a different way to help make the forecasting process most efficient. A great deal of effort and resources are placed on forecasting the ‘A’ items, some on the ‘B’ items, and a negligible amount on the ‘C’ items.

The ‘80-20 Rule’ is an operating principle or model that represents the fact that in most businesses a small fraction of all items makes up a large portion of the total value. Using sales as an example of a value-based criterion, ‘80-20’ figuratively means that 20% of all items make up 80% of total sales. However, the principle often is leveraged in segmentations in which more than two segments are used and the percentage breakouts could be very different than the 20% and 80%. A/B/C Segmentation leverages the '80-20 Rule' using a three-segment business process approach.

Thus, when benchmarking a segmented forecasting process, one needs to realize that the benchmarked company’s exact process may not be effective in another business environment. The number of segments and percentages used to divide them most likely will be very different, as will the management effort and resources needed for each segment.

Sales and Operations Planning: Sales and Operations Planning (S&OP) is a process used in operational/tactical planning and is considered a supply chain best practice. It leverages Supply-Demand Matching, an operating principle that involves balancing supply and demand over time in order to satisfy demand, optimize operations, and minimize wasted resources.

Under an S&OP process, a company’s sales and marketing plans are aligned with the plans of operations, logistics, manufacturing, and procurement in order to jointly optimize future demand-supply operations. It is a process from which the final ‘constrained’ and ‘unconstrained’ demand forecasts are developed and then used to drive operational planning activities.

When benchmarking a company’s S&OP process, managers need to understand that various elements of the benchmarked company’s process cannot be taken at face value as best for them. This includes decision-making as well as the frequency, length, agenda, and functional participation in S&OP meetings. Since the underlying operating principle involves balancing supply and demand over time, each S&OP implementation is unique and based on a company’s business environment coupled with its intended strategies, operating models, and operational performance objectives.

Demand Shaping: This is a best business practice that is mentioned often when discussing Dell’s formulas for success. Demand shaping is an execution (in contrast to a planning) process that involves creating and shaping demand in the short-run based on currently available supply. It is forecasting-related in that it impacts short-term demand forecasts. Similar to S&OP, the practice leverages the Supply-Demand Matching operating principle, except that it is being done essentially on a real-time basis.

Under Dell’s Demand Shaping practice, each day a team of Dell workers meet to see what is available in the warehouses that feed a manufacturing plant. Based on the inventory levels, the team will change immediately what is promoted on the web site – as well as the prices and deliveries times of products – in order to steer customers towards what is currently
available and away from what is not. While this best practice resembles daily S&OP process, it is not, because Demand Shaping is an execution process in which Dell is acting in the short-term to recover from excess and short inventory positions. It is similar to what retailers do when they mark down prices to rid themselves of surplus store inventories.

As noted by the difference between a retailer’s markdown process and Dell’s Demand Shaping practice, companies cannot replicate the practice just as Dell does it. Much of what Dell does, for example, is possible because its web-based merchandizing can be changed virtually instantaneously. To enable the Supply-Demand Matching operating principle in an effective way in another business setting will most likely require very different business practices.

Collaborative Forecasting and Planning: Collaborative Forecasting and Planning is one type of supply chain collaboration and often is touted as a best business practice. Under this practice, a customer might provide a variety of information to help its supplier forecast and prepare for the customer’s future demand. This information might include downstream information about the customer, such as Point-of-Sale (POS) and consumption data, as well as warehouse inventory levels and withdrawals. Other information might include a forecast of consumer demand that is made by the customer or is developed jointly with the supplier. Depending upon how the information is used by the supplier and/or customer, up to two operating principles might be leveraged with these collaborative practices: Sphere of Influence and Increased Transparency. The former principle involves the fact that increasing one’s sphere of (management) influence along a greater portion of a supply chain can result in improving its performance. The latter principle deals with the fact that increased supply chain visibility can lead to improved performance because it helps to reduce demand and supply uncertainty, often from improved forecast accuracy.

Since one or two operating principles might be leveraged through a Collaborative Forecasting and Planning practice, it is important to understand which ones are leveraged when benchmarking this best business process. For example, one Wal-Mart best practice is its sharing of RetailLink POS data and forecasts with its suppliers. In doing this, Wal-Mart is trying to increase its Sphere of Influence to help optimize future supply chain operations. Meanwhile, when its suppliers use the data for planning purposes, they are taking advantage of Increased Transparency to optimize their own supply chain. When joint collaborative planning is being practiced, such as under a Collaborative Planning, Forecasting, and Replenishment (CPFR) program, both parties potentially are increasing their Sphere of Influence and Transparency.

LEARNING FROM A BENCHMARKED PRACTICE

As shown by these examples, it is important to identify the underlying principles being leveraged by a benchmarked best practice. It is the principles that are responsible for the benefits being accrued by the practice. Thus, rather than replicating another company’s best practice, one should assess whether the principle can be leveraged with a practice that makes more sense in one’s own business environment. In addition, one also needs to ensure that the principle and practice provide the type of benefit that is dictated by a company’s strategies, operating models, and operational performance objectives, while at the same time fitting with and reinforcing the other tailored business practices and enabled principles.

Here are key questions you should address to help you evaluate whether another company’s best business practice can help you achieve supply chain excellence:

1. What is the operating principle being leveraged by the company’s practice and how does it fit it with the other tailored practices that support its competitive strategy, operating models, and operational performance objectives?
2. What new business practice would best leverage the principle in your supply chain? (Determining this will require an extensive business case analysis that compares all the costs and benefits of implementing and operating the business practice/principle.)
3. Does the new practice improve the competitiveness of the operating model aligned to the strategy?
4. Does it improve your most important operational performance metrics without distorting the competitive balance you are trying to achieve?
5. Does the new practice fit in among the set of tailored practices that are responsible for driving competitive advantage?
6. Does it reinforce those tailored practices?

If you address all these questions before you act, you’re apt to get the greatest value out of Business Process Benchmarking. Trying to exactly replicate the best business practices of known supply chain leaders is not likely to do your supply chain much good. However, implementing the operating principles they leverage stands a very good chance of improving your performance.

REFERENCES