

10 New Ideas for Generating VALUE

Running low on ideas on how your supply chain can bring new value to the business and to your trading partners? Looking for innovative concepts that will capture management's attention and drive future investment in the supply chain?

The ten ideas presented here can help on both counts.

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By Sumantra Sengupta

Innovation is the lifeblood of all companies. This could be in the

form of new products, services or even new operating models. In the absence of innovation, a company will face the certain “death by commoditization” effect over a period of time. Yet where the supply chain is concerned, innovation seems to be lacking in all too many cases. It is rare to find an organization thinking about—let alone investing in—supply chain innovation. However, they will readily spend hundreds of millions of dollars on product and service innovation.

Why is this the case? Why does investment in supply chain process innovation lag so far behind the growth and strategic importance of the function? To find some answers, I revisited an article that I wrote for *Supply Chain Management Review* in 2004 titled “The Top Ten Supply Chain Mistakes.” Five years later, it's evident that many companies across industries are still making those

mistakes. They remain slow to adopt even basic best practices to leverage the supply chain's power. So if they are still struggling with the fundamentals, it's not surprising that they haven't given much thought to innovation.

But by not embracing innovation companies foreclose on an important opportunity to add value to their business and to their supply chain. This article sets forth ten innovative supply chain ideas that can add value. They can lead to positive outcomes in any economic environment. Applied aggressively during turbulent economic times like these, however, they can yield powerful results that will position companies well for the upturn we hope and expect to come.

Ten Innovative Ideas

The ten value-adding ideas presented here will be reflected in different parts of the P&L and balance sheets, as we describe below. Exhibit 1 groups the ideas, some of which overlap, into three broad impact areas—revenue enhancement, cost management, and sustainability. While management buy-in and cross-functional coordination are essential to making these ideas work, they all reside squarely in the domain of the supply chain function and its managers.

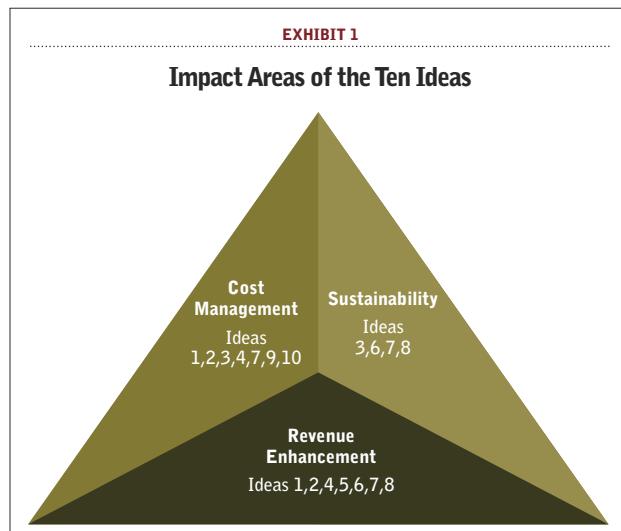


Idea One:

Shift the focus from order-to-delivery to design-to-support

We've all spent endless months (and sometime years) focusing supply chain management on the order-to-delivery (OTD) process. This made inherent sense since OTD represents 15 to 25 percent of the supply chain variable cost in the typical company. Over the years, many companies have developed strong competencies in the traditional activities of Plan, Buy, Make, and Move, which are geared to planning and delivering with sustained excellence. In the face of constantly escalating commodity pricing and a decrease in immediately available substitute sources of supply, however, many companies have found that the cost drivers have shifted to the product design and bill of material structures.

Recently, we were engaged in two fairly lengthy discussions with the heads of global operations for a consumer health care and a medical device company. Both companies are global in their customer and supply base. In addition to sharing common supply chain challenges, both these executives had one common goal: To change the product design process to adapt to the shifting commodity pricing market. The two executives both were focused on driving their entire design and research team to explore alternate materials that would not lock them



into the current commodity cost structure. They were spending less of their time and innovation budget looking into alternate sourcing models for current products and more on exploring alternate design materials that would also positively impact post-production support, including parts and spares management.

The whole concept of design-driven manufacturing and alternate bill of material structure, though long overlooked, is capturing new attention these days—and with good reason. Shifting the focus to design-to-support will enable companies to fully explore their inherent strengths in product design and innovation while continuing to drive down supply chain costs. However, this shift will necessitate the adoption of lean and agile manufacturing principles that emphasize rapid prototyping and speed to market. And that means achieving the right mix of agility with stability that we have always strived for in our supply chain practices.



Idea Two:

Look for hidden values in reverse logistics.

The reverse value chain has traditionally been treated as more of a compliance and regulatory issue than a generator of value or competitive advantage. Yet reverse logistics costs as a percent of revenue can range between 3 and 6 percent, depending on the type of industry and product. Returns can range widely—from 4 percent all the way up to 50 percent in the publishing industry, for example. Obviously, returns represent a prime source for discovering significant value that can immediately drop to the bottom line.

Some cellular network providers, for example, have gained sustained startup cost advantages by offering

refurbished or remanufactured phone sets at a fraction of the cost of the new equipment. These efforts have been driven by a well-executed return and manufacturing process for equipment that is not at end of life.

As corporations increasingly adopt green initiatives as a core part of the value chain, they find that component refurbishing and reuse can be a source of additional value. This approach, coupled with the right set of controls for reusable products such as wooden pallets that are traditionally considered disposable, can positively impact the cost basis by a factor of 1 to 3 percentage points.

A well-constructed reverse logistics framework includes the following components: a dedicated returns network that is separate from the company's forward network; processes designed specifically for the reuse and reverse logistics activities; incentives for the dealer/retail network to perform value-added services such as efficiently sending back damaged product or incorrect orders; and predictive tools and technologies to accurately predict inventory velocity needed to ensure customer satisfaction. As a competitive lever, appropriate cost drivers for the reverse logistics effort also must be in place.



Idea Three: **Globalize the functional processes and adopt a “follow the sun” model for skill deployment.**

Information technology outsourcing has become mainstream over the past 15 to 20 years. The global delivery model for outsourced IT services has migrated from on-site to “right-shore” —based on cost, skills and technology availability. It is commonplace to have a U.S.-based company's help desk call answered in Philippines with a back up agent in Ireland and remote services for desktop support coming from India. This taps into the English speaking skills in the Philippines, the tax advantages of a location like Ireland, and the technical skill base and good bandwidth available in India.

We have not seen the application of similar thinking applied to supply chain processes such as planning, procurement, customer service, and innovation. These resource-intensive activities could benefit from a careful analysis of what might be outsourced or “right shored”. There are four simple steps to accomplish this.

1. Create the “task pyramid”. Every supply chain process can be segmented into the following task hierarchy and assigned a percentage of time spent on each: administrative, analytical, innovative and cross functional. Take normal supply chain planning functional processes, which include demand management activities; supply

and manufacturing planning; new product commercialization cross processes; customer service and sales cross functional processes.

2. Specify the lead times required to perform the processes and elapsed time necessary to perform the associated tasks. This suggests that all associated tasks are performed to add specific value for the product or the services that the company is providing.

3. Find logical breakpoints in the process. With demand planning, for example, these breakpoints could be process mapping and analysis, data analysis, data socialization and realignment based on inputs from cross functional groups, and commitment to plan. Each of the task segments listed above has a logical breakpoint and, hence, can be treated as a self contained segment.

4. For the various task segments, create a “right shore” map that is balanced against the associated lead time boundaries. This will lead to extracting the best use of global skills that are available within the company or with partners that can provide the required process services.

Utilizing the simple four-step approach will ensure that the company is globalizing the supply chain functional processes as well as utilizing the talent pools that are available across the world. This will enable creation of functional centers of excellence across the organization's geographic span while freeing up overburdened resources to now execute the required supply chain process.



Idea Four: **Manage the supply chain using the concept of floor-and-surge to deliver with increased agility and less waste.**

In the *Supply Chain Management Review* article mentioned earlier, we discussed the concept of having multiple supply chains within a company. Today, that concept may be more relevant than ever as companies balance the need to be market responsive against ever escalating total landed supply chain costs.

Companies still tend to operate one supply chain and manage all end-to-end activities using the same level of rigor—or lack thereof. Decisions are made primarily using manufacturing cost as the primary determinant, with the major tradeoffs typically between lead times and safety stock. Yet in today's dynamic, consumer-driven market, where forecasting is always risky, lead times vary widely, and safety stock is extremely costly, this traditional approach may not be best.

We suggest using the floor-and-surge capacity model as a more responsive alternative. Through this approach, the company invests in load leveled (“floor”) capacity for

the stable and fast-moving products, also known as high flow-through products. These are products that move very quickly and repetitively through the supply chain in extremely cost advantaged locations since lead times can be buffered by setting appropriate safety stock policies.

For the products that have more variable demand patterns, are candidates for postponement techniques (pack size variations, color variations, or other variations that does not disturb the basic configuration), or are seasonal or promotion-intensive, we recommend a “surge” approach. These products are planned and produced separately from the more stable demand products. In many instances the surge manufacturing is co-located with the floor manufacturing arena; however, it is managed in a more agile manner. Depending on the product’s characteristics, one may consider deferring end production of surge products as near to the end channel/consumer as possible (for example, in postponement centers).

The flow-and-surge approach allows the corporation to benefit from the longer production run economics as well as the labor arbitrage that many seek.



Idea Five:

Focus on real-time updates and adjustments to increase agility and shape responsiveness. (Traditional static forecasting without dynamic updates is passé.)

Senior manufacturing executives frequently ask, “Is forecasting necessary? Is it relevant in a day when product life spans are getting shorter and consumer preferences are becoming even more fickle? Is the traditional view of demand planning dead?” Our view is that planning and forecasting is still necessary. Yet it now needs to be conducted in near-real time.

What does it mean to be near-real time? It’s the minimum time required to provide supply chain stability with respect to necessary manufacturing lead time and the necessary transportation lead time. In today’s dynamic environment, you need to dynamically adjust the plan based on real-time market signals such as point-of-sale data, purchase order activity, and competitive market factors. Many find it hard to think through the implementation of the concept because of the deep-rooted notion that planning horizons are monthly and required to provide manufacturing stability. This traditional thinking has led to continued higher-than-necessary inventory levels across the entire extended supply chain (including the suppliers) as well as customer service levels that are still stagnating in the mid-80 percent.

However, if you couple Idea Four (floor-and-surge)

with a real-time dynamic planning horizon, it leads to a much higher degree of agility. Additionally, the tendency to focus on snap shots of monthly demand numbers often leads to high levels of dampening of the “within week and within month” customer order variations. We would propose that companies think about the total demand that would be consumed within a certain time period (lifecycle) and use the dynamic predictability concept to project the entire lifecycle (amount that will be sold or shipped during a certain time period such as a holiday program) to augment the baseline static forecast. Done on a weekly basis, such augmentation will prevent the high error levels and variations often found in many industries.

The agricultural produce industry offers a great example of the dynamic nature of demand management. The normal modes of demand planning are almost irrelevant because of the huge impact of the weather on the produce that is harvested. Complicating this are yield issues, and size and color variations of the produce. The end result is that predicting demand beyond a week becomes almost impossible. This industry uses daily demand and supply management to ship product across the country to the various retail channels. The industry leaders exhibit the ultimate agility in adapting and shaping demand patterns based on available product.



Idea Six:

Redefine the traditional supply chain silos and culture to make it value chain-centric and hence ensure a more successful product launch.

The supply chain function in most corporations is initiated and integrated at the time of new product commercialization and continues until the product is shipped. This is a huge step from even a decade earlier when the functions of manufacturing, procurement and shipping were mainly viewed in isolation. Integration of the supply chain functions, which is fast becoming commonplace, has delivered huge benefits in both COGS and income statement measures for many companies.

Two key critical activities, however, have been left out of this integrative process: product design planning and direct relationships with channel partners and customers. In most cases today, the supply chain function picks up when the product design is completed and initial costs have been approved. However, the supply chain should be involved right after the initial idea-generation process has been completed. This will allow the company to more effectively assess alternate design specifications in light of availability and location of supplies. It would also enable

the supply chain management to identify potential supply channels and identify alternate materials as well as supply networks. In the end, this involvement would result in a better cost platform for the new product.

The second area that supply chain management professionals needs to expand into is in dealing with and forging direct relationships with channel partners and customers. The traditional supply chain function typically ended when the product was shipped and again picked up if there were issues with missed shipments or product returns. However, as the supply chain has become strategic to both the manufacturer and the channel partner, it needs to proactively plan for and address operational issues vs. reacting to them. Forging the direct relationships to augment the existing ones typically held and nurtured by the sales function will yield a smoother product positioning (for new products); greater agility to deal with out-of-stock situations; and the ability to work jointly to reduce total landed costs as well create value in innovating in category management type of activities.



Idea Seven:

Create demand and supply pools for commodity products and services that extend the normal span of enterprise focus.

We were recently speaking with the senior management teams from three different corporations ranging in annual revenues from \$400 million to \$3 billion. None of these companies had competing products, either existing or planned. However, each of the companies was spending large amounts of effort, personnel and associated technology in managing demand and supply for what could be considered commodity products and services (i.e., those not differentiating from a product or company value). These included MRO spend; non-strategic marketing spend; non-strategic product spend like shrink wrap and corrugated, and so forth.

As the discussion progressed, my thoughts went back to 2001, when many of us were discussing the entire concept of B2B exchanges. The aim of B2B exchanges was to lower the spend level in these commoditized areas. The problem was that results too often fell short of expectations, and the B2B exchange idea largely fell out of favor.

Yet today many companies are once again beginning to work with members of the extended value community in pooling their spend and in systematically driving greater consolidation across the supply chain while improving service and in many cases lowering total cost of ownership (this includes not just the piece price but also associated personnel, process and technology

costs). We are not advocating the re-emergence of B2B exchanges. Instead, we're saying that companies should continually seek to manage their commodity spend by exploring means of partnerships and participation in concepts such as pooling and spend leverage.



Idea Eight:

Shift the focus of supply chain management from product only to product and services management.

Our traditional focus, particularly in the manufacturing environment, has been on the various aspects of product excellence. Now, more and more companies are adding an element of value-added services to create “stickiness” with their channel partners. The supply chain should take note. This does not mean that the supply chain should become a direct provider of value-added services into the marketplace. Instead, we're suggesting that the function adopt a strong element of a service in its mindset and day-to-day execution. This includes all components of the supply chain—planning, sourcing and procurement, transportation and logistics, and so forth.

This service orientation also should be extended to the channel partners as well as strategic suppliers. The aim here is to optimize the end-to-end supply chain process. This could involve the establishment of value added services like CPFR (collaborative planning, forecasting and replenishment); VMI (vendor managed inventory); and collaborative and joint business planning. It could also entail the creation of best-practice sharing centers of excellence. Joint educational programs that address the significant value of working together would be valuable in this regard as well.

This mindset and cultural shift required to implement this idea is easier said than done. It involves a fundamental migration from a internally focused mindset to one that is more consultative and collaborative. This type of shift often calls for a significant change management effort among personnel as well as augmentation of current skills with external resources. The payoff associated with making this shift, however, will be evident in increased customer service levels and marked improvements in product flow-through.



Idea Nine:

Utilize on-demand processes and associated supporting technology to complement existing investments.

Many companies have invested in the tra-

ditional people, process and technology aspects of the business. Where the supply chain is concerned, there's been a particular emphasis on the so-called enabling technology. Yet none of us need or want another study that is based on the clever use of analytics and huge spread sheet-based models that is not followed up with a robust implementation plan. We all know that any implementation plan will have large elements of technology. However, we are also entering an era in which large capital investments will be scrutinized extremely closely due to the tightening of the credit markets and expenditures for other areas of investments like property, plant and equipment (PP&E).

We suggest that companies take a closer look at using on-demand processes and technologies across the value chain. This approach will allow for the optimal usage of capital expenditures while leading to higher than average adoption rates of the process in order to derive maximum benefit. On-demand enablers are now widely available from most Tier 1 and Tier 2 technology vendors and have been gaining significant ground in recent years. Such solutions are no longer limited to the well-known on-demand technology for sales called salesforce.com.

Many companies are beginning to utilize this approach for advanced processes like detailed analytics that may not be required on a regular basis or for advanced capabilities like network and warehouse design. Several providers have made available on-demand models for these types of activities (as opposed to the traditional project based offering). A number of companies (including ours) provide deep analytical services using a follow-the-sun model from cost advantaged locations like India and emerging areas like Latin America. Expect to see these types of services becoming more mainstream in the next few years as the focus continues on cost restructuring and "doing more with less."



Idea Ten: **Decide on the right level of value chain responsiveness, then apply the "Rule of 5 percent."**

Responsiveness is critical to the market success. One recent survey found the difference between market leaders and laggards was their ability to respond to ever-changing market conditions. Responsiveness should be viewed as complement to lean. In a recent discussion I had with an automotive executive, he made the comment that his company had become too lean and could no longer be as responsive. Every organization should take stock of the degree of

responsiveness that is required to satisfactorily serve all constituents profitably. Hitachi Consulting has developed a concept called Building the Market Responsive CompanySM, which demonstrates how ultra-lean organizations miss out on viable market opportunities for lack of flexibility. (A video of this concept can be viewed on the firm's website at www.hitachiconsulting.com.)

Responsiveness as a measure should use the concepts of floor-and-surge; lead time agility; and customer service and reverse logistics flexibility. These all are useful inputs to determine the right level of responsiveness that is required to survive and thrive in a fickle, consumer-preference driven world that is always changing.

We often find that companies use the marketplace as an excuse to not offer any stability in their supply chain and are forever fighting fires. It's as unacceptable as not considering customer/consumer preferences in your business and supply chain strategy. We encourage companies to take a hard look at the required level of agility in the end-to-end supply chain and then to innovate their processes using techniques such as lean to extract an additional 3 to 5 percent year-over-year improvements (the "Rule of 5 percent"). At some point, all companies will reach a ceiling of agility and improvement. The hope is that with continued innovation and growth on the top line, it will be a very long journey.

Driving the Next Idea

As our discipline continues to gain importance as a strategic enabler for competitive advantage, we have to demonstrate innovative ideas that will continue to drive increased levels of investment. The entire supply chain management ecosystem (academics, practitioners, technology providers, consulting firms, and so on) all have distinct roles in continuing to drive the agenda forward.

To achieve that end, all of us need to become much more cross functional and "extra enterprise" focused. Cost pressures are making this a necessity and not a luxury, and the group that is able to extract value where none was expected will truly become the supply chain master. We hope that the ten ideas offered here will help supply chain organizations deliver on that value proposition—and in the process drive the next new idea. 

Author's notes: Read more about this topic at www.hitachiconsulting.com/responsiveness.

I would like to acknowledge several Hitachi colleagues from the Supply Chain Group, Products Industry Group and Corporate Marketing for their helpful comments on earlier drafts of this article.