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Dynamic Operations

Supply Chain Innovations for the Era of Permanent Volatility

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The faster things change, the more companies must alter how they design, source, manufacture, distribute and support products. That's what is happening today: Changes relating to globalization, economic troughs, currency swings, supplier upheavals and political turmoil are becoming more relentless; and the result is unremitting pressure on companies that are trying to adapt.

Few organizations, unfortunately, are able to change as fast as the world around them; and a key reason is that their supply chains were built on inflexible foundations (often during times of greater stability). During construction of those supply chains, the core mission was usually efficiency—weaving together a variety of critical operations and partners. But in this era of "permanent volatility," companies with rigid supply chains simply can't shift gears fast enough.

To keep pace with change, companies could benefit significantly by concentrating somewhat less on efficiency and more intently on "dynamic"—creating fluid supply chain ecosystems of processes, people and technologies. Accenture refers to this new state as "Dynamic Operations": supply chain capabilities designed to adapt readily to changing events.

Change is constant. Adaptability is essential.

There's something different about our current business environment. Around the world, businesspeople perceive that things are more chaotic—that risk is more ubiquitous, outcomes less predictable and the pace of change more rapid.

This perception is quite real. In fact, various indices show that volatility—the result of tumultuous political, environmental, technological and financial events—is double that of any point in the past 30 years.[1] It shouldn't be surprising, therefore, that more than 80 percent of executives responding to a recent Accenture survey have questioned the resilience of their supply chains.

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Consider some of the ways that volatility affects supply chain management. Governmental and political issues directly influence currency rates, which in turn impact the supply chain. For example, Japanese companies with high levels of flexibility might have the luxury of responding to a strengthening yen by quickly moving more production or distribution operations offshore. Another hot topic is "dual utilization": the rapidly increasing, and concurrent, use of mobile technologies such as tablets and smartphones. This has huge supply chain implications: from IT governance and security, to order management and procurement. Then there is rapid globalization: As companies operate on more of a worldwide basis (buying, selling or both) they're increasingly exposed to supply problems, port disturbances, security breaches, labor issues, fuel-price swings, and the frequent ups and downs for which emerging markets are known.

Fluctuating commodity prices are another contributor to permanent volatility. Oil is the most obvious case, but prices are oscillating just as violently in other areas. Cotton prices, for example, peaked in March of 2011 at more than three times their 10-year average. By December 2011, cotton was down 60 percent.[2] How and where apparel companies buy cotton, ship materials and sell cotton products (the entire supply chain continuum) are hugely affected by such shifts.

Even "natural" events have been wreaking increasing havoc on people, property and supply chains. For a considerable time, the Japanese tsunami depressed the stock prices of most consumer electronics companies. Corporate victims of flooding in Thailand included automotive and computer manufacturers (40 percent to 50 percent of the world's computer hard drives are produced in Thailand). Few climatologists believe that weather-related disasters will become less frequent.

The net effect is that permanent volatility—multiple events (large or small, gradual or instant, man-made or natural) hitting simultaneously with increasing frequency, intensity and pace—is not going away anytime soon. And the reason permanent volatility has such an outsized effect on companies' supply chains is because every node (design, manufacture, distribute, transport, etc.) is affected in a different but nonetheless significant way. Adding to the problem, most supply chains were designed during times of greater stability: Their structures reflect a largely inflexible, fixed-point-in-time mission to find the best blend of low cost and peak productivity. Simply put, many companies' supply chains have a hard time accommodating the turbulent changes that the world is now experiencing.

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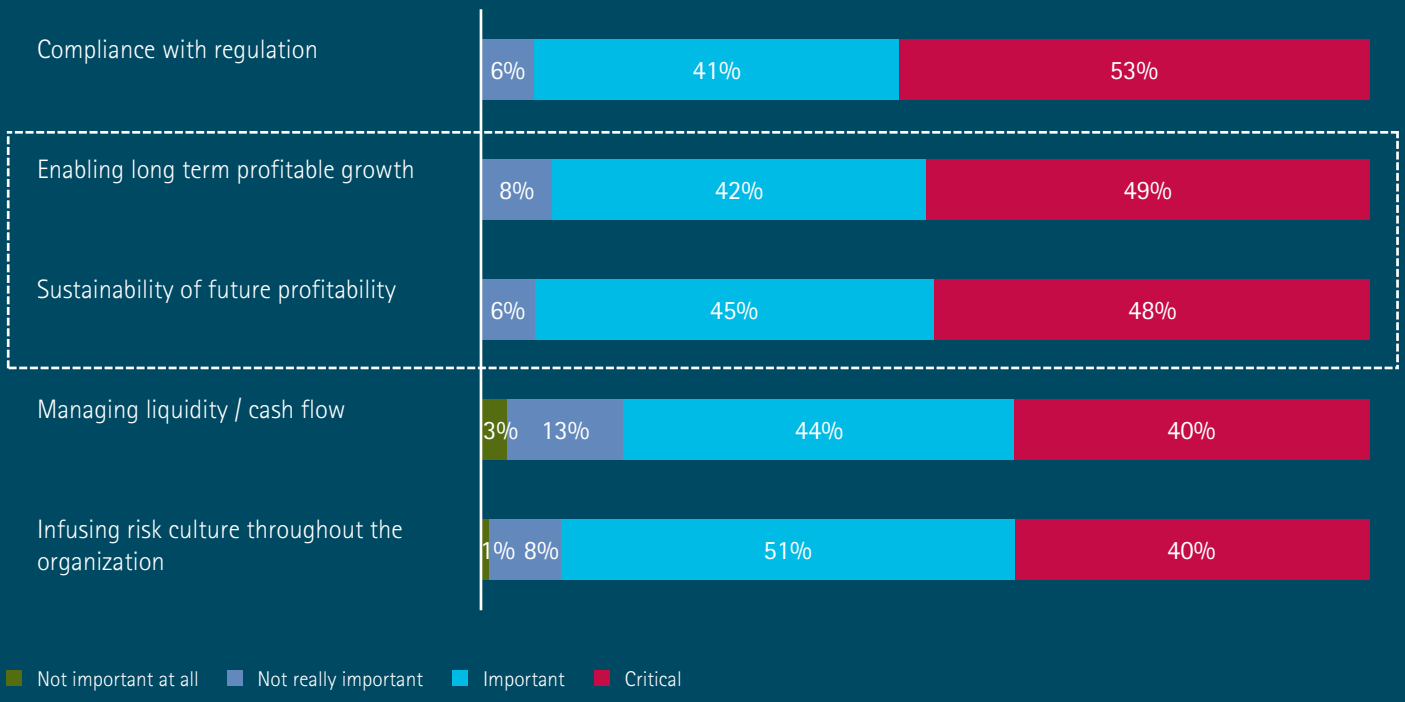
Executive Perspectives on Permanent Volatility

Most business leaders are aware that a new era of volatility has arrived and that a common outcome is increased risk. According to a recent Accenture survey, 98 percent of responding executives believe that risk management is a higher priority than it was two years ago. And more than 80 percent said they worry about the resilience of their companies' supply chains—the ability to adapt operationally to rapid changes in products, markets, currencies and business conditions.

On the positive side, more than 90 percent of the same survey's respondents believe that stronger risk management programs are important or critical to long-term growth and profitability (see illustration). In addition, results of a MIT research initiative revealed that, while only 10 percent of manufacturers have mature systems and processes for addressing supply chain risks, those that do are 75 percent more profitable than their competitors. This tells us that, although permanent volatility is a significant supply chain problem, there are viable and potentially profitable responses.

Survey recipients were asked "How important is it that you develop stronger risk management capabilities to achieve the following?"



Dynamic Operations: A Company-Wide Focus on Rapid Response

Faced with threats of such significant impact, quantity and duration—as well as the opportunities associated with supply chain upheavals—many companies have become supply chain innovators. Walmart uses its extensive data-sharing relationships with suppliers and manufacturers to acquire information quickly. Southwest Airlines hedges on oil prices to protect itself from wildly volatile fuel prices. H&M leverages a two-supply-chain model to align transportation/distribution priorities with product characteristics. UPS shifts assets and processes between businesses to handle seasonal peaks.

Each of these capabilities contributes significantly to its implementers' efficiency, productivity and/or profitability—whatever mission (or combination of missions) are deemed most important. But levels of responsiveness that are even higher could be achieved by combining leading supply chain practices into a unique framework. The suite of ultra-flexible, hyper-responsive capabilities that result is what Accenture calls "Dynamic Operations."

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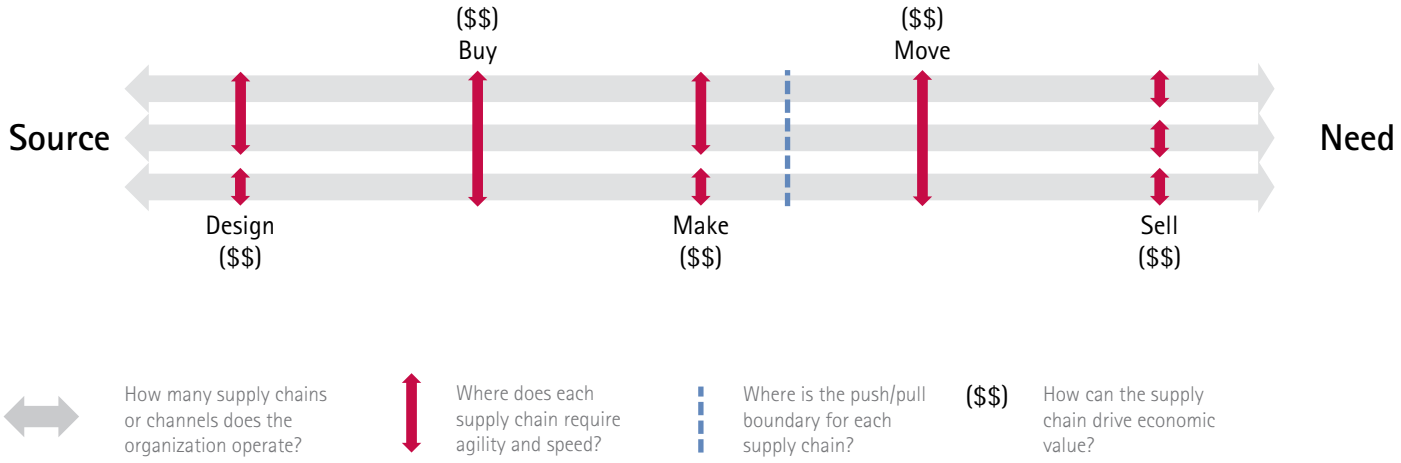
Think of Dynamic Operations as groups or nodes of supply chain networks that—in response to changing events—reorient themselves without upending a company's desired cost/service balance. When a disruptive situation arises (supply interruptions, financial turmoil, market shifts, etc.) processes at any node on the supply chain can be modified quickly. The idea is illustrated by the red arrows in Figure 1. These refer abstractly to the level of flexibility a company might desire for each specific node, based on political, financial, technological or supply-chain-specific events. A loose analogy might be a guitar whose pegs allow the musician to design custom tunings that make a difficult song easier to play. With a guitar, the timbre of one or many strings can be changed. With Dynamic Operations, a company can do the same thing: effectively retuning its supply chain by leveraging the flexibility it has built in to every node.

In net, Dynamic Operations is about making rapid supply chain adjustments with minimal disruption, inconvenience or added cost.

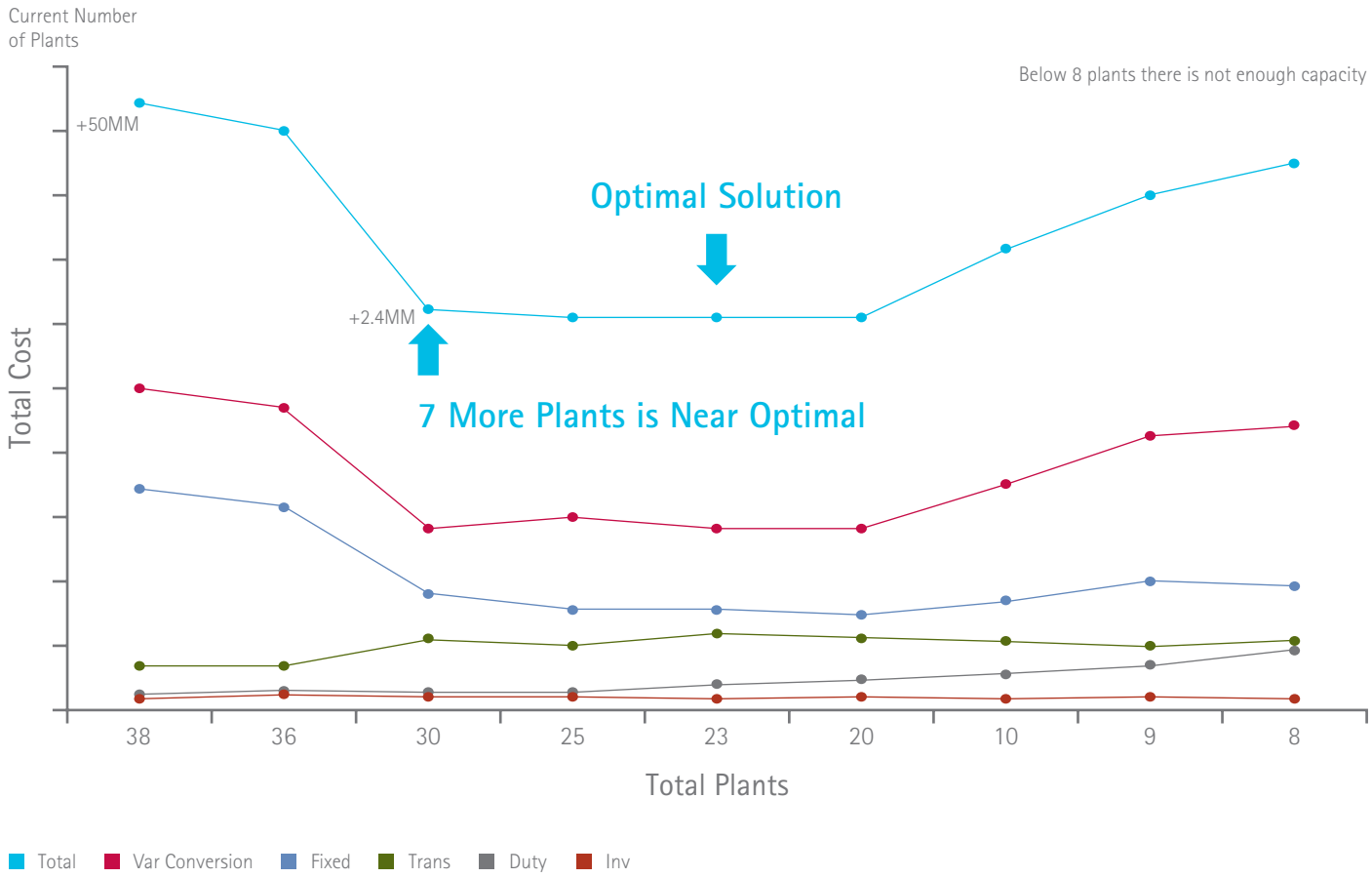
Figure 1: The concept of Dynamic Operations implies a group of supply chain nodes or networks that reorient themselves as needed without upending a company's desired cost/service balance.



To illustrate, consider the actual case of a consumer goods manufacturer with 40 production facilities worldwide. The company's markets and product lines were changing rapidly and company executives knew they needed to rationalize manufacturing. However, they also recognized that fewer plants could mean higher risk—compromised response and lead times and potentially higher per-plant operating expenses. The solution was to create more Dynamic Operations fewer facilities (reduced from 40 to 23) but greater manufacturing breadth at each plant. To make this happen, the company used advanced analytics, scenario planning and insightful network design to create a unique "tradeoff curve" (Figure 2). Via the curve, the company was able to determine the precise cost of adding relative levels of flexibility and that, by raising per-plant investments only slightly, it could increase supply-chain-wide resilience significantly and give each plant more ability to produce the products and quantities dictated by market conditions at any given moment. Basically, the organization got a lot more bang for only a few more bucks. Shuttering 17 plants also saved more than $40 million annually.[3]

Dynamic Operations is about maneuvering and adapting in unpredictable markets, and making adjustments based on constantly evolving demand/supply profiles.

Figure 2: An innovative tradeoff curve helped a consumer goods company identify the optimal number of manufacturing plants and imbue each facility with higher amounts of flexibility. As illustrated, supply chain costs tend to be flat around the optimal strategy.[4]

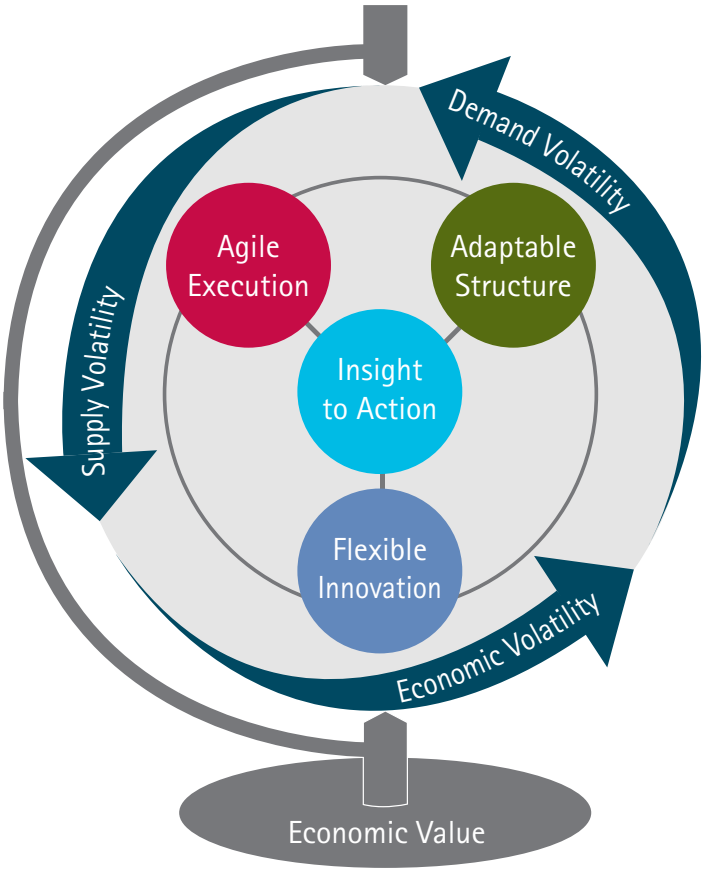


The Dynamic Operations Framework

The core missions of Dynamic Operations (flexibility, adaptability, individual node-by-node adjustability) are easy to appreciate but naturally difficult to implement. To set the stage, companies may need to re-conceive the supply chain as portfolios of supply chains—segmented by product, customer and geography. After all, the basis of Dynamic Operations is node-by-node flexibility, which isn't possible with a single, taut supply chain.

Decision makers also should plan to evaluate each individual supply chain by functional area. The idea is to understand which processes and functions are critical to the business strategy (and thus should be optimized) and which are used across the business (and thus should be more-fully standardized). Once this is done, companies are better positioned to implement, optimize and combine the four core capabilities that constitute a Dynamic Operations framework. These distinctive capabilities work together to give companies the speed and flexibility they need to identify and accommodate an endless stream of supply chain disruptions and anomalies—often minimizing the negative effect of those events while capturing the opportunities that the occurrences may engender.

Figure 3: In a world of permanent volatility, Dynamic Operations capabilities are critical because they help companies constantly reorient and rebalance their capabilities.



These four capabilities are:

1. Insight to Action (sensing and responding).
2. Adaptable Structure (deploying an operating model that is designed for change).
3. Flexible Innovation (conceiving new paths to increased growth and greater operational efficiencies).
4. Agile Execution (adjusting quickly).

Consider the visual metaphor in Figure 3: Volatility in all its forms surrounds a company's operations, creating an ever-changing pattern of effects. At one point in time, a weather–related event might be dealt with most effectively by shifting a company's supply bases. At some other time, high commodity prices could necessitate a change in pricing and inventory-stocking strategies. Or maybe looser regulations in a tough-to-penetrate market offer a brief window of opportunity for organizations that can quickly make and ship more finished goods. Working together, Dynamic Operations' four capabilities can make it possible to turn volatility into opportunities.

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1. Insight to Action

Think of Insight to Action as sensing, capturing and analyzing external and internal data and turning it into usable business intelligence. In effect, you're using information to improve the company's ability to react swiftly to both threats and opportunities—buffering risk while leveraging risk's upside. You're also spending more time positioning yourself for tomorrow's prospects than fighting today's fires.

The base of Insight to Action is often a command center that emphasizes real-time monitoring and visibility, while constantly simulating scenarios that may or may not happen. Think of it as a streak-free window through which companies can see potentially disruptive events (weather anomalies, supply disruptions, demand drops) as well as fast-breaking opportunities (evolving markets, technology innovations, favorable currency swings, information about competitors' actions).

Zara—arguably the world's most innovative clothing retailer—provides a textbook illustration of Insight to Action. Zara's entire operations strategy is built around speed to market—delaying production and even product design until market-signal information is available. Toward this end, store managers use command-center-like capabilities to tightly monitor sales and market trends and then make appropriate, last-minute manufacturing, product assortment and inventory decisions. Leveraging these attributes, Zara's time to market (from design to store shelf) is two to five weeks, compared to the industry average of six months. In the fashion world, this is a huge competitive advantage. When Madonna performed in Spain, an outfit identical to the one she wore at the concert was selling in Zara's stores three weeks later.[5]

Advanced risk-management capabilities are equally important in the world of Insight to Action. This means not only identifying supply chain risks, but understanding trigger points, assessing their impact, formulating mitigation strategies and developing mechanisms for minimizing exposure over the long term.

Insight to Action depends heavily on predictive analytics and simulation engines. Unlike descriptive analytics (which helps companies understand what already happened), predictive analytics uses sophisticated statistical modeling, forecasting and optimization to predict potential outcomes and assess the operational impacts of prospective supply chain decisions. Dynamic Operations also relies on analytics and simulation to improve demand planning, evaluate the "cost of risk" and compare production-allocation scenarios based on product profitability.

Along with the initiatives already noted, companies pursuing Insight to Action can:

- Enhance their modeling capabilities to simulate high/low-probability events, thus gaining a better understanding of how the supply chain acts and reacts under each scenario.
- Develop a "control tower" or "command center" to monitor any event that might signal a market opportunity or cause an adverse operational reaction, such as port activity, consumer behaviors, currency fluctuations or weather patterns.
- Develop tools and processes that help evaluate the cost of risk and determine the most economical responses.
- Focus IT staff on the ability of systems to talk to one another in real time.
- Develop real-time metrics and align them with alert mechanisms.
- Automate basic decision-making processes where possible.

Insight to action has been well demonstrated by a global high-tech manufacturer. In this case, the key was a "resiliency scorecard" that the company developed to help it predict, quantify and respond to risks associated with manufacturing, supplier management, component quality and integrity, and testing. For example, the company associates manufacturing resiliency with the existence of viable alternative sites, qualified manufacturers and likely delivery response times should a disruption occur. Similarly, insights developed from analyzing a supplier's behavior—using financial information about public companies and correlating the data with supplier performance metrics such as lead times and service levels—allow the company to develop a "supplier score" and formulate contingent actions.[6]

2. Adaptable Structure

Operating models can take years to design, implement and perfect. This might not be a serious problem were it not for the fact that an operating model's life can be short. Mergers, acquisitions, market shifts, economic upheavals and other events can render an operating model obsolete almost as soon as it is implemented. Bottom line? In a world of permanent volatility, an Adaptable Structure—supported by a malleable operating model—is key.

Think of Adaptable Structure as a toolkit for helping maximize a company's ability to respond rapidly and productively to change. For example, flexibility can be increased by carefully changing the design of products. However, companies often overlook the importance of improving process and system flexibility, and this is the focus of Adaptable Structures. Perhaps the best and clearest example is flexible manufacturing: the ability to respond quickly to currency fluctuations, supply disruptions or sudden demand shifts by altering manufacturing volumes, mixes and venues.

Companies with Adaptable Structures also excel at using hedging strategies: They are more able to rapidly assess the level of redundancy needed to mitigate supply chain risks, and they take out "insurance" to bring identified risks down to acceptable levels. If risk is deemed too high, those companies might raise their investment in the flexibility of a particular node (procurement, manufacturing, distribution, etc.).

Lastly, companies with Adaptable Structures also tend to be those that are best positioned to leverage outsourcing as a cost-management mechanism and even a competitive weapon. The ability to turn fixed costs into variable costs is, in a very real sense, the epitome of an Adaptable Structure.

Adaptable Structure is about investing in supply chain flexibility— seeing to it that the level of risk (e.g., from commodity price swings, weather-related disruptions, port disturbances, supply breaks, labor strife or shortages) is consistent with the company's ability to respond.

Along with the initiatives already noted, companies pursuing Adaptable Structure can:

- Work to infuse a "risk-management mindset" throughout the company, rather than a "risk-avoidance mindset." Avoiding risk is often impossible; managing risk (and therefore turning it to your advantage) is often very possible.
- Develop a variable, rather than fixed, cost structure on a node-by-node basis. At one company, it may be feasible to contract out some manufacturing operations, thus making it easier to scale or move production. At another organization, outsourcing might make more sense for post-sale service management than for manufacturing.
- Launch flexible capacity initiatives to ensure the ability to handle demand peaks and reduce costs during troughs.
- Establish hedging strategies for critical components and supplies, and put appropriate backup plans in place.
- Buy up capacity for critical components, thus reducing competitors' sourcing flexibility. Apple excels at this practice.
- Consider actual insurance policies for specific high-risk events.
- Explore the use of shared services models. Like outsourcing, this can help a company convert fixed costs to variable costs.
- Implement flexible pricing structures to rapidly align demand and supply.

Nissan is a good example of how Adaptable Structures can play a big role in today's volatile business environment. 2011 was a tough year for Japanese automakers. Two natural disasters—the Japan earthquake and the Thailand floods—crippled production, while a strong Yen and increasing competition put extreme pressure on markets. However, Nissan fared surprisingly well. Following the earthquake, Nissan was the first Japanese car company to get back to business. And in the wake of the Thailand floods, Nissan was able to contain the issues locally, with global parts-supply operations hindered far less than those of many competitors.

Several innovations explain Nissan's adaptability. One is that the company had carefully implemented a long-term strategy focused on rapid recovery during times of volatility. Cross-functional teams—led by the CEO and a chief recovery officer—were already in place to ensure continuity and manage adverse situations. The value of this move was exemplified during the earthquake: Within days of the incident, the CEO and his risk management team visited the plant, surveyed the damage and determined what had to be done to regain normal operations.

Another innovation is Nissan's global, low-cost "V" platform for vehicles in emerging markets. The V has allowed Nissan to extend its production base across the world—using standardized parts in different production facilities. When the Thailand floods hit, Nissan was able to swiftly re-source parts from China, thereby limiting production constraints to Thailand. Global operations were largely unaffected.

In the wake of Asia's weather calamities, Nissan's Adaptable Structure innovations helped the company sell more cars in the United States, while its competitors dealt more haphazardly (and less effectively) with production issues. Nissan's Altima model did particularly well, outselling competitors and capturing the top position for several months. Nissan also posted strong sales in other regions such as China and Europe. And in Japan, Nissan suffered 2011 sales drops that were far less severe than what most competitors experienced.

3. Flexible Innovation

Companies' success often depends on introducing new products and services that meet customers needs and desires. However, what customers need and desire evolves constantly. Buying power frequently reflects economic circumstances. Sales numbers go up or down in lockstep with technology breakthroughs, market shifts, price changes and the actions of competitors. Even weather conditions (including seasonality) can alter a product's desirability. The point is simple: Beginning with the design phase, the ability to shorten development cycles, accelerate times to market, and alter process attributes and product quantities as needed is a potentially huge advantage. Laying the groundwork to make this happen is what Accenture calls Flexible Innovation.

The ability to rapidly alter process attributes, product quantities and item designs based on shifting circumstances is a potentially huge advantage.

Flexible Innovation's cornerstone is making the design and development process less rigid; say by reducing changeover times, increasing interchangeability, designing products that embrace multi-channel networks and technology, and structuring ways to smoothly and rapidly rebalance order management, production and warehousing in response to shifting conditions. With Flexible Innovation in mind, companies might consider launching initiatives focused on the multi-purpose use of design and manufacturing assets. They might also create more modular product designs that encourage "plug and play" approaches. Or perhaps the ideal is increased postponement of final assembly or more-efficient upgrades. Complexity-reduction programs also may be key: avoiding bells and whistles that customers won't buy, but still building more-elaborate products for customers willing pay the premium. Companies also can benefit from complexity reduction in ways not related to flexibility: Double-digit drops in safety stocks, spares, obsolete items and capital equipment costs are common outcomes of complexity-reduction initiatives.

Lastly, Flexible Innovation can include the rapid bundling or repositioning of products and services, or even positioning a service to supersede a product. Take Philips Medical, which is developing service-based programs to make smaller, more-portable devices available to rural areas. Or General Electric, which may maintain ownership of an airplane engine, while still providing the engine's customer with comprehensive maintenance and repair services.

Along with the initiatives already noted, companies pursuing Flexible Innovation could:

- Apply lean manufacturing disciplines to their product and service innovation processes.
- Use social networking forums to collect consumer insights more rapidly.
- Work more closely with suppliers on the design of new products.
- Leverage new collaboration concepts such as "Open Innovation" (emphasizing cross-enterprise cooperation to enhance and accelerate the generation and implementation of new ideas).
- Develop targeted product-design programs, such as customization (make-to-order) initiatives, frugal innovation projects (adapting products for new markets or segments with unique needs) and products that encourage follow-on sales or after-sale service or upgrade opportunities.

Tesco has long been at the forefront of retail—offering customers exceptional value and service. But seeking to grow in the South Korean market, Tesco found itself working with a new set of customers, while competing against players with more-fully-developed store networks. The solution was both novel and successful.

First, Tesco worked to increase its understanding of South Korean shoppers' unique needs and priorities. Using this information, the company determined that South Korean customers' most pressing requirement was increased convenience. Tesco then rebranded itself "Homeplus" for the South Korean marketplace—aligning the name with an emphasis on convenient, customer-friendly grocery shopping. The next challenge was to neutralize the advantages associated with competitors' vastly larger retail networks. Opening a lot of stores quickly would require significant capital; and even that might not swing the balance in Tesco's favor. Furthermore, South Koreans' need for increased convenience wouldn't necessarily be met simply by building another crop of traditional stores. Tesco's solution was to open numerous virtual stores inside South Korean subway stations. These facilities provide a buying experience similar to retail stores. The difference is no actual products: Customers purchase goods by using their mobile phones to scan QR codes next to product images. Purchases log to customers' online accounts and items are then delivered to buyers' homes.

By building a large retail network that addresses customers' most pressing needs—and is simple to expand, move and maintain—Tesco was able to achieve scale very quickly with comparatively little capital investment. Homeplus has become the second-ranked player in the South Korean retail market and is now number one in online sales.

4. Agile Execution

Agile Execution is about adjusting supply chain actions in response to changing external events. In the automotive industry, for example, a need might arise to relocate or rebalance manufacturing facilities—like Toyota's decision to shift Camry production from Japan to Kentucky to serve the Korean marketplace. This transition took about six months. In a Dynamic Operations environment where Agile Execution reigns, that same shift might take only a few weeks.

Agile Execution depends on collaboration with internal and external partners to maximize information sharing, reduce order cycle times and create processes that are streamlined yet adaptable. Postponement also has a place in Agile Execution, since end products can be customized closer to the sale, thus helping to ensure that supply closely matches shifting demand. As noted previously, Zara excels at postponement.

An innovative network strategy is also vital to Agile Execution. The mantra here is "flexible resource allocation" made possible by centralized operations, low-touch (highly automated) processes, cross-trained personnel, solid supplier contingency plans and an elastic infrastructure that emphasizes outsourcing, vendor-managed inventories and rent-rather-than-buy philosophies.

Flexibly allocating resources requires an innovative network strategy, low-touch (highly automated) processes, cross-trained personnel, supplier contingency plans and an elastic infrastructure.

A flexible system architecture rounds out the list of top-tier Agile Execution requirements. Standardization and automation are the linchpins here. For example, processes and technologies need to be broadly standardized to effectively handle and disseminate ideas, designs, plans and products. Systems also must be able to operate seamlessly and adjust to changes without human intervention.

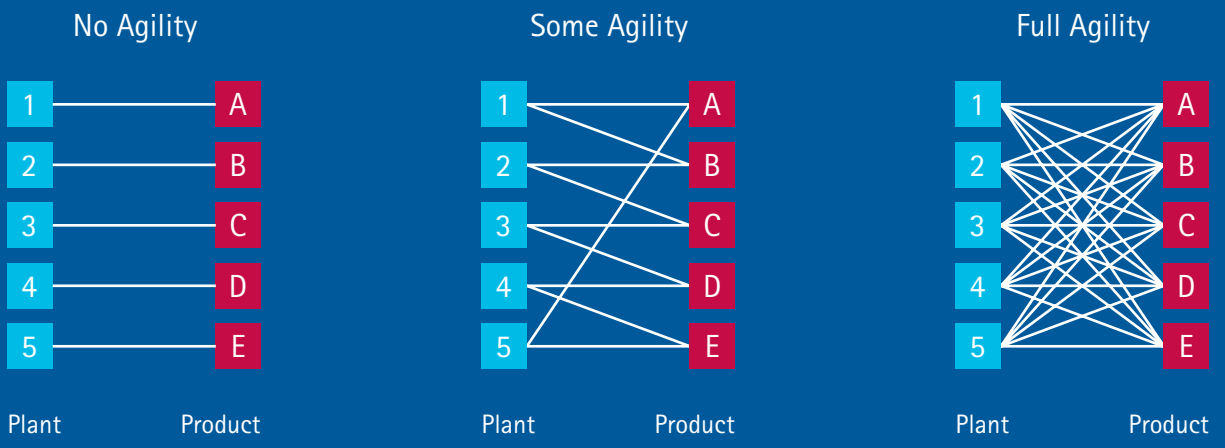
Along with the initiatives already noted, companies pursuing Agile Execution can:

- Enhance their use of system alerts and triggers to make faster, better adjustments and manage priorities.
- Establish an open architecture network that fosters competitive knowledge sharing.
- Automate (low-touch) value-driven business processes and technologies with rules-based logic.
- Create "pop-up" or "pop-down" capabilities that can be deployed at the product or geographic levels.
- Enable multi-directional information sharing with trading partners.
- Make quick shifts in function or location by having a flexible, cross-trained workforce.
- Utilize assets that are multi-functional and can be repurposed quickly.

A great example of Agile Execution comes from a large consumer goods manufacturer. As shown in Figure 4, it is not uncommon for companies to dedicate a single plant to one or just a few products or product families. This is generally considered the most economical approach, despite the fact that it limits an organization's ability to respond quickly to internal disruptions (forecast or planning errors) or external changes (customer, market, geopolitical and competitor shifts). At the other end of the spectrum are manufacturing networks within which every plant is capable of producing all of a company's products. These can be highly expensive to enact and manage, although they may sometimes be more cost-effective, profitable and competitively advantageous because of their ability to keep pace with change.

The best scenario is usually somewhere in the middle: balancing economy and flexibility based on whatever criteria an organization deems most salient. This is what the above-mentioned manufacturer did: Responding to rapidly changing consumer preferences, it created not the highest level of agility, but rather the *right* amount of agility across its network of plants. The company thus has been able to produce almost everything that full flexibility could achieve but without the giant cost increases associated with maximum elasticity. In effect, it spent a little more to get a lot more. Key benefits include a multi-million-dollar reduction in raw materials and supplies, and a 2 percentage point decline in the growth of transport miles, even as revenue grew.[8]

Figure 4: Agile Execution is not necessarily about making every plant do everything. Instead it is about arranging for every plant to do the right thing: finding the point where economy meets responsiveness to customer and market shifts.[9]



Unilever is a prototypical global company, with operations and customers in scores of countries. Equally diverse are the organization's product lines—foods, beverages, cleaning agents and personal care products—many of which have unique design, sourcing, manufacturing and logistical profiles.

With so many focal points, it shouldn't be surprising that, for Unilever, supply chain excellence is a moving target. Raw material prices vary. Transportation/distribution priorities shift. Emerging markets exhibit fast-evolving product and service requirements. And since it isn't really possible to tame this volatility, Unilever opted to make itself more resilient by creating the Unilever Supply Chain Company (USCC), a distinct entity with its own management accountability.

Dynamic Operations' core capabilities are well represented in the USCC. For example, Unilever has developed third-party manufacturing facilities close to several markets. Used primarily for non-core products, this approach limits risk, which is a core benefit of Adaptable Structures. Unilever also has created a single repository of manufacturing and research information, as well as a single reporting structure and suite of metrics across the supply chain. Standardized processes, measurements and information are often the best foundations upon which to build Flexible Innovation. Agile Execution is also represented, by working interdependently with Unilever business in various countries the USCC is able to make rapid, effective supply chain decisions.

Dynamic Operations Represents a Fundamental Shift in Thinking and Execution

Dynamic Operations is a true paradigm shift: A different way of operating, organizing and executing. An opportunity for sizeable improvements in profitability. A chance for significant cost savings. A way to build dramatic advantages over competitors that are less aggressive and forward thinking. A dramatic and potentially discomfiting change in corporate culture. A degree of flexibility and responsiveness that lies beyond traditional comfort zones.

But given the momentous shifts occurring throughout the global business community, a strong case can be made that Dynamic Operations is more than just a big idea. Instead, Dynamic Operations may be an epic, fast-growing imperative—a vital response to permanent volatility and even a natural extension of high performance in and beyond the realm of supply chain management.

Dynamic Operations could be more than just a big idea. Instead, Dynamic Operations may be an epic, fast-growing imperative—a vital response to permanent volatility and even a natural extension of high performance in and beyond the realm of supply chain management.

Companies also must consider that that Dynamic Operations is a journey, a process and, to an extent, a constant evolution (Figure 5). After all, change is constant and continuous. Value propositions are not static. In addition, no company has (or is likely to) perfect every Dynamic Operations capability. However, a growing number of leading-practice organizations are moving toward Dynamic Operations in ways that are aggressive but still make individual sense. However, they also are acknowledging and working to incorporate a variety of basic truths:

- They're preparing more diligently for the unexpected.
- They're working harder to seek synergies and leverage existing strengths.
- They're creating targeted innovations that build new capabilities without compromising the effectiveness of old capabilities.
- They're continuously strengthening their market insights, working to capture data quickly and bake it into business and operating decisions.

Important, individualized and potentially imminent, Dynamic Operations—in all its forms and all its increments—is clearly an investment worth considering.

Figure 5: The migration toward, and key characteristics of, Dynamic Operations.

	Functional Excellence	Integrated Supply Chain	Extended Enterprise	Dynamic Supply Chain
Role of Supply Chain	Meet internal commitments	Meet a customer commitment	Design and fulfill	Design, fulfill, and drive profit
Extent of Influence	Departmental boundaries	Company boundaries	Selected partners	"Ecosystem"/network
Financial Focus	Cost	Cost and service	Drive value	Dynamically optimize tradeoffs
Operational Focus	Compliance	Interdependence	Collaboration	Agility
Order Management Philosophy	First come, first serve	Available to promise	Capable to promise	Profitable to promise
Supply/Demand Balancing Approach	Produce to a schedule	Fulfill demand	Forecast and fulfill	Sense, shape and respond
Decisioning	Siloed	Team-based	Rapidly address the urgent	Rapidly address the important
Risk Factoring	Afterthought	Buffers in the system	Contingencies and redundancies	Predictive and responsive

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About the Authors

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Sundip Naik is a Managing Director in Accenture's Management Consulting Practice. His 15+ years of experience spans global supply chain transformational programs focusing on tax efficient operations, network strategy, transportation planning/execution and distribution re-engineering. He has worked in the consumer goods, retail, communications and high-tech industries. Sundip currently serves as the co-lead for Dynamic Operations and also leads several other Accenture offerings and thought leadership initiatives such as Sustainable Supply Chain and Demand Driven Fulfillment. Based in Atlanta, he can be reached at sundip.s.naik@accenture.com.

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David Simchi-Levi is a professor of engineering systems at MIT and is considered one of the premier thought leaders in supply chain management. His research focuses on developing and implementing robust and efficient techniques for logistics and manufacturing systems. He has published widely in professional journals on both practical and theoretical aspects of logistics and supply chain management. Professor Simchi-Levi coauthored the books *Managing the Supply Chain* (McGraw-Hill, 2004), *The Logic of Logistics* (Springer 2005), the award winning *Designing and Managing the Supply Chain* (McGraw-Hill, 2007), as well as *Operations Rules: Delivering Customer Value through Flexible Operations* (MIT Press, 2010). Professor Simchi-Levi can be reached at dslevi@mit.edu.

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Accenture is a leading provider of management consulting services worldwide. Drawing on the extensive experience of its 16,000 management consultants globally, Accenture Management Consulting works with companies and governments to achieve high performance by combining broad and deep industry knowledge with functional capabilities to provide services in Strategy, Analytics, Customer Relationship Management, Finance and Enterprise Performance, Operations, Risk Management, Sustainability, and Talent and Organization. Accenture Operations consulting services help clients develop more dynamic, innovative and high performing Supply Chain and service operations capabilities to enable rapid response to changing customer demands and market opportunities.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with 257,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$27.9 billion for the fiscal year ended Aug. 31, 2012.

11-5433 / 12-2927 SL