# Supply chain opportunity in an uncertain economic recovery

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**Abstract**

**Purpose** – The purpose of this article is to discuss opportunities that businesses have to grow their operations in a more scalable way with a higher level of investment in variable-cost resources and assets. For most companies around the world, resources have been reduced, inventory drained, technology spending curtailed, and core processes scaled back in order to adjust to the current reality of reduced demand. In an uncertain recovery, supply chain operations need to be more scalable and flexible as they anticipate economic recovery and increase capacity. Moreover, this can be easier to achieve coming out of a severe recession.

**Design/methodology/approach** – This work first explains why scalability and flexibility benefits are potentially easier to achieve when rebuilding supply chain operations out of a severe downturn. Second, a rationale is provided to show how a scalable and flexible supply chain mitigates multiple risks from economic uncertainty during a recovery where a more traditional fixed-cost approach does not. Third, a four-step approach is described that businesses can follow to identify and capture supply chain opportunities where a scalable and flexible model might be most sensible to consider.

**Findings** – More scalable, variable cost supply chain operations have clear advantages over more traditional cost ones, especially when the economic recovery includes a high level of uncertainty and there is a risk of reentering a renewed recessionary period. There may be no better time than now for enterprises in any industry to consider adopting a more variable cost supply chain to limit risk and capture the most revenue growth opportunity.

**Originality/value** – The concepts of centralization, utilizing temporary and part-time labor, and outsourcing are certainly not new ones and many companies have already benefited from adopting these ideas in their supply chains. However, it has not been widely recognized that these same concepts pose heightened and renewed opportunity for any business across industries because of how the global recession has changed their business landscape. Since companies have already downsized labor forces, drained inventory levels, closed facilities, and cut other costs dramatically, there is a tremendous opportunity to evaluate new, more variable-cost business models as they grow operations to meet renewed demand.

**Keywords** Supply chain management, Business development, Recession

**Paper type** Research paper

## 1. Introduction

The global economic recession has taken a toll on virtually all business operations and affected all business sectors. Most companies around the world have reduced organizational resources, drained inventory, curtailed technology spending and scaled back core processes in order to adjust to the current reality of reduced demand and more constrained investment flexibility. It is remarkable how rapidly many businesses have successfully scaled back their supply chain operations in order to sustain profitability during difficult times.

As the recession ends, the new challenge of ramping supply chain operations back up in a nimble yet more strategic way is commanding new attention. However, risk still exists that a "W" shaped recession is possible, or that an "L" shaped prolonged downturn with little growth might be the ultimate path of the economy in the near term. No matter how the world's economy ultimately recovers, it is clear that businesses cannot stand still with a "wait and see" approach to capturing growth opportunities. Companies need to be proactive to realize anticipated growth, yet also remain able to react effectively when the market does not behave as expected. In fact, previous studies highlight the leading practice that, when facing uncertain demand and supply, enterprises should work to make their supply chains more flexible and adaptive to the environment (Chan *et al.*, 2009).

This work first explains why scalability and flexibility benefits are potentially easier to achieve when rebuilding supply chain operations out of a severe downturn. Second, a rationale is provided to show how a scalable and flexible supply chain mitigates multiple risks from economic uncertainty during a recovery. Third, a four-step approach is described that businesses can follow to identify and capture supply chain opportunities where a scalable and flexible model might be most sensible to consider.

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## 2. Supply chain scalability and flexibility benefits can be easier to achieve

The effects of strategy on flexibility – and flexibility on performance in the supply chain – are already clear. The importance of carefully considering the type of flexibility to implement in order to benefit from valuable time and resource investments has already been well articulated as well (Fantazy *et al.*, 2009). But to achieve scalability and flexibility in order to enable such strategic supply chain transformations, the associated costs to change have oftentimes been high in the past.

One straightforward way to demonstrate that scalability and flexibility can be easier and less costly to achieve coming out of a severe recession is to show that many of the costs associated with constructing such a model have already been paid from responding to the downturn. Indeed, organizations have incurred significant one-time costs to right-size operations in recent years as a response to the global recession. Although too numerous to mention all here, some of the costs associated with restructuring include severance and other costs related to workforce reductions, costs associated with plant and facility closures, costs from contract and lease cancellations, inventory write-offs as well as costs from selling under-utilized assets at a loss. These are many of the same costs that companies incur even during a healthy, stable economy to achieve higher levels of scalability and flexibility to enable strategic supply chain transformations. For example, when a company chooses to centralize a supply chain function into a shared service, such as procurement, one necessary action might be to lay off workers and pay the associated costs where that function is no longer needed. The costs of transformation can be even higher when a supply chain function is outsourced entirely.

Thus, flexibility and scalability can actually be easier and less costly to achieve in the midst of a severe recession than in more vibrant times because much of the cost has already been paid from responding to the downturn. When businesses have scaled down their operations and supply chain capacity, often to "bare-bones" levels, they can design flexibility and scalability in as they adjust supply chain strategy and grow back operations as economic growth returns. In fact, alignment between supply chain strategy and economic (or environmental) uncertainty has been positively associated with supply chain management performance (Sun *et al.*, 2009). Since human resources are used throughout the supply chain, more scalable and flexible models in this area can yield particularly high benefits.

### 2.1 Benefiting from new resource models

Many companies traditionally consider human resources a fixed cost for their supply chain operations because of the difficulty with rapidly reducing headcount in a predominantly full-time workforce. Today, as companies consider their options for achieving growth in a volatile and uncertain recovery, the ability to permanently change the mix of full-time, part-time, temporary and contract labor is high. It is not surprising that economists consider growth in temporary labor usage as a leading indicator for a broader job market recovery (Gavin, 2009).

Businesses can cost-effectively capture growth opportunities from economic "up-ticks" without risking downside from further restructuring costs if a global recovery is not sustained. They can determine appropriate staffing requirements that consider temporary labor by defining and assessing best-case and worst-case scenarios for economic growth, competitive pressure and capacity requirements. In an environment with a robust labor market that accompanies high unemployment, such an approach makes even more sense. In fact, flexible growth can be a strategy to evaluate temporary labor resources as candidates for full-time employment later on.

### 2.2 Benefiting from consolidating procurement into shared services and outsourcing

As they begin to grow capacity, meet customer demands and remain nimble to limit downside risk in case the economic environment weakens or remains soft, businesses can achieve flexibility and scalability in other areas of the supply chain beyond labor. Enterprises can more easily consolidate some functions – such as procurement – into shared service models now that they have scaled down operations. These functions may even be outsourced altogether so that remaining resources can focus on higher-valued activities and assets can be redeployed or retired. The indirect procurement function, for example, can be outsourced so that an external business partner provides buyer activity and commodity management services.

In one instance, a *Fortune* 50 aerospace company realized cost savings by outsourcing the procurement of commodity engineering parts in two steps. First, they outsourced procurement locally to an external service provider and then moved the back-office and telephone services to India for further savings. Additionally, within the past five years, both a multinational tire company and a global food producer have reduced their costs and increased flexibility by outsourcing some of their procurement activity to a procurement services provider. In addition to cost savings, which can be in the range of 15 to 20 percent of operational costs, another driving force behind the procurement outsourcing trend is that procurement organizations are increasingly constrained by insufficient resources (Huber *et al.*, 2009), a problem that will only be exacerbated as companies ramp-up capacity coming out of recessionary times.

### 2.3 Benefiting from consolidating other functions into shared services and outsourcing

Other traditional areas of the supply chain where outsourcing has led to significant scalability and flexibility benefits include manufacturing, transportation and logistics with third-party logistics providers, and warehouse and inventory management services. In fact, manufacturing companies have developed frameworks specifically for the selection of distributors (Lin and Chen, 2008). There are many companies worldwide that specialize in wholesale distribution whose customers benefit from having a more variable cost structure with outsourced distribution functions. Although all the back-office operations such as payroll are not considered part of the core supply chain, the same principles apply.

A global supplier to the semiconductor industry provides an example of a company that has already adopted a supply chain strategy to have a more variable cost structure as a proactive response to the historically volatile and cyclical technology industry. As early as 2004, the company reported that its strategy to outsource manufacturing activities included a plan to avoid future fixed-cost infrastructure and to achieve a more variable cost structure, contributing to gross margin improvements.

It is important to manage the variable-cost elements of a business just as rigorously as the fixed-cost elements. For example, outsourcing any business function might require a new organizational role to manage service quality and manage business partner relationships. Similarly, new skill sets, guiding principles and management training might be required to manage variable-cost resources such as temporary labor. But even this aspect of flexibility has well-developed leading practices, which cover everything from critical success factors in hiring and building capabilities (Smart Resource Staffing, 2009) to compliance requirements and legal issues (MacDonald, 2003).

## 3. Scalable and flexible supply chains mitigate multiple risks

Capturing opportunities during an uncertain economic recovery by growing operations in a more scalable, flexible way mitigates risk from virtually any scenario, with very few tradeoffs when compared to more traditional fixed-cost supply chain models. Table I shows how the operational risks with a flexible growth model during an uncertain economic recovery compare to a more traditional growth model that permanently adds fixed costs.

There are many possible scenarios as the global economy claws its way out of the worst recession in decades, and some industries will reach a period of stable and sustained growth earlier than others. Still, these are three macro-level economic scenarios that leading economists often discuss, and the implications of any one scenario on companies that choose to grow by adding either fixed costs or variable costs are enormous. Having a scalable and flexible supply chain to accommodate growth clearly mitigates risk in ways that adding fixed-costs does not. Of course, at some point in the future when an economic recovery is no longer uncertain and stable growth can be reliably forecasted, enterprises will have additional opportunity to reevaluate their growth models and potentially optimize their operations differently.

## 4. Identifying and capturing opportunities to be scalable and flexible

Companies can identify opportunities and implement plans to grow in a more scalable, variable way simply by evaluating their current state and considering the recent changes that have been made to scale-down operations in response to the deepening of recessionary times. The following four steps provide a straightforward approach that can be followed to identify and capture benefits from opportunities that exist.

First, organizations can assess the current state of their operations and collect information about how they have changed going into the recession. In some circumstances, an enterprise may have naturally centralized some functions by eliminating them in a number of decentralized, smaller locations. More likely, though, is the case that many supply chain functions have been uniformly scaled down across different regions so that critical mass is no longer available in some locations, making it easy to consolidate, centralize or outsource. A drop in internal or external customer satisfaction, or falling service level performance measures can be signs that supply chain functions are struggling to meet their service and quality commitments in a downsized environment.

Second, knowledge of the current state can be used to identify opportunities to create more scalable and flexible operations with more variable costs. Realizing that significant downsizing has occurred is certainly not a new insight in the midst of a severe recession, but the implications that the new current state has on opportunities to grow into a more scalable, flexible model coming out of the recession are enormous. For example, there are many companies that have idled, closed or sold off manufacturing operations in industries where outsourcing companies can readily manufacture on a contractual basis. The decision to pursue contract manufacturing rather than reacquiring facilities can have a beneficial impact on business performance and economic risk mitigation.

One global corporation in the food and beverage industry identified an opportunity to consolidate dispersed indirect procurement activity and other overhead functions into a consolidated shared service center in order to realize cost savings and increase flexibility when emerging from recessionary times. As with any significant business transformation, companies should identify, evaluate and select alternatives with a clear prioritization approach. They should also develop a future-state vision and roadmap of initiatives to achieve that vision, and carefully manage implementation of each initiative to identify, escalate and resolve issues before they become problematic.

Third, companies can create and disseminate governance, policies and communications so that the guidelines are clear for decentralized recruiting and investment activities. Local management controls and the governance of supply chains are clearly intertwined, and both must considered (van Veen-Dirks and Verdaasdonk, 2009). Companies need to challenge managers and executives to grow their operations in ways they may not have considered in the past. Managers need to more frequently ask whether the work be done with temporary, part-time or contract labor for a period of time. Before large capital investments are made, questions should be asked about whether the associated tasks can be outsourced to another company that has already made the investment and has more favorable economies of scale.

As noted earlier, enterprise-level services that play a role in enabling the core supply chain functions can also benefit from this approach. IT support, HR, finance, call centers and customer support services are all candidates for centralization and can often be made more scalable or outsourced altogether.

Fourth, companies can establish measures, controls, key performance indicators (KPIs) and reporting so that they can evaluate the success of their growth strategy and manage risk through an uncertain recovery. Monitoring supply chain performance reveals the gap between planning and execution and helps identify areas for improvement, where some of the essential KPIs have already been proposed and described in previous work (Chae, 2009).

Relevant area of the supply chain should have appropriate KPI's established if they are not already in place. For example, performance indicators should be established to monitor outsourcing partners and ensure that they are prepared to accommodate both the best- and worst-case growth scenarios, given their own capacity constraints.

**Table I** A flexible, variable cost growth model mitigates supply chain risk

| Economic scenario | Key supply chain risk | Fixed-cost structure does not mitigate risk | Variable-cost structure mitigates risk |
|---|---|---|---|
| **1. Prolonged downturn with little economic growth** | Adding costs to the supply chain in anticipation of growth that does not materialize in the near term | High risk of adding costly supply chain resources and assets that remain under-utilized for a prolonged period of time | Risk is mitigated since supply chain resources can be acquired from the robust labor market and shed in a low cost manner as anticipated growth is not realized<br>Risk from investment in new supply chain assets can also be mitigated or eliminated by sharing it with outsource partners |
| | | High risk of needing to downsize yet again without having achieved any tangible benefits from investments in recruiting, signing bonuses, training and learning curve effects, and ultimately results in new severance costs | Risk is mitigated from needing to downsize when a recovery does not materialize since costs associated with resources and assets acquired in anticipation of growth can be readily scaled back when forecasted growth does not occur |
| **2. Rapid or steady recovery** | Not capturing the full growth opportunity and loss of market share | Moderate risk that recruiting efforts and learning curve ramp-up time are too long since permanent employees need to be thoroughly evaluated for their long-term potential | Risk is mitigated from experiencing a long recruiting lead time since more temporary and contracted resources can be hired quickly and then evaluated on the job for their longer-term potential |
| | | Moderate risk of assets that require significant investment take too long to bring online | Risk is mitigated from having significant assets take too long to bring online because they may already be in place with outsourcing partners, leased and not owned or already in place and utilizing second and third shift labor to meet capacity needs |
| | | Low risk of attrition as the labor market tightens since full-time resources will be more loyal and stable in their work environment | Risk of attrition can be higher if not carefully managed, but this risk can be mitigated by switching the status of variable resources to permanent employees as the economic recovery becomes more certain and stable |
| **3. Temporary recovery followed by a "double-dip" recession** | Unexpectedly needing to downsize operations in response a stalled recovery | High risk, with similar issues as described in (1) except the likelihood of the risk to occur is much higher, as is its magnitude, because operations will be more fully scaled up with expectations of a full recovery | Risk is mitigated similarly to the description in (1), except the benefits are even greater here because flexibly scaling up allows an enterprise to capture the full range of opportunity from a partial recovery, yet also scale back when the recovery stalls, to avoid having costly, under-utilized resources and assets longer than necessary |

Other examples of performance measures target inventory information. Maximum and minimum levels for inventory replenishment should be evaluated and monitored with renewed rigor now that customer preferences and buying behavior has changed. Stock-out risks should be monitored and mitigated so that revenue is not lost, and inventory carrying costs should be reported and managed as well. The linkages between inventory investment and business cycle fluctuation, and the need to address them together, are already well understood from previous work (Heng *et al.*, 2005).

Before the recession, many companies understood well their benchmarked performance and baseline positioning relative to industry peers. However, the relentless focus on controlling and minimizing cost for the past few years could lead to unexpected shortages, constraints and under-capacity circumstances without a renewed focus on prudent preparation for growth. Even in less recessionary times, and despite substantial resources being used, planning results are often not reliable or consistent enough to ensure adequate supply chain performance and cost efficiency (Kaipia and Holmström, 2007). Improving and maintaining scalability and flexibility through an uncertain economic recovery reduces many of the risks associated with capturing growth opportunities when even the best planning efforts still do not reflect volatile market dynamics.

## 5. Conclusion

As companies rebuild capacity in the supply chain, there are different options available that can help them to be more scalable and flexible through an uncertain economic recovery; one that potentially includes prolonged recessionary conditions. This work has shown that scalability and flexibility benefits can be easier to achieve as companies rebuild out of severe recessionary times simply because much of the cost that would normally be needed has already been incurred from initially responding to the downturn. A

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rationale has also been provided to show that preparing for growth by rebuilding a scalable and flexible supply chain, with more variable costs, mitigates risk from economic uncertainty very well. Finally, an approach has been described that can identify and capture supply chain opportunities where a scalable and flexible model might be most sensible.

Even if recessionary conditions do not persist, opportunities exist for companies to emerge stronger, more scalable and with more variable supply chain cost structures than in the past. Replacing traditionally fixed-cost resources and other assets with a more variable cost structure in order to enable growth is more possible now. The midst of a deep recession may be the best time for enterprises in any industry to consider adopting a more variable cost supply chain to limit risk and capture the most revenue-growth opportunity. Companies that do not consider ways to transform their supply chains now in order to have a more variable cost structure in the future may be missing an opportunity that may not come again for many decades.

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