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Supply chain planning professionals know that better tools are needed beyond standard ERP to improve performance without adding people. However, the path to deciding and investing in new software tools is more complex and scrutinized than ever.

Gone are the days when CIO's had full control of IT expenditures. Today, even small investments require full consensus among all business and IT stakeholders, along with a business case - a *strong* business case.

### How do you get started?

Supply chain technology projects are as much about business process and organizational readiness as they are about technology. Lack of a clearly defined supply chain vision and roadmap leads organizations to an inability to justify technology investments to support their ongoing process and long-term needs.

## The top factors that motivate organizations to invest in supply chain technology are:

- Reducing operating and support costs
- Enhancing decision making
- Supporting customer expectations or demands

### Supply chain technology leaders face the following challenges:

- Quantifying the business value when soft savings and cost avoidance are not enough.
- Aligning project scope with organizational readiness to ensure the technology solution can be adapted to users and future business needs.
- Identifying quantitative savings that can deliver a payback within two years.

A business case provides the comprehensive justification to support initial and ongoing commitments of time, resources, and funding for the project. Quantitative and qualitative cost-benefit scenarios, including the option of doing nothing and associated risks, are important elements to justifying the technology investment. It is also recommended to consider nonfinancial benefits such as supporting scale, agility, and innovation.



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To get started building your case, start documenting the business process, organization, technology, and performance metrics that reflect the way things are working across three different states: Current state, Transition state, and Future state. Identify multiple alternatives for reaching that future state; summarize what those would be and how they would support getting to the desired future state. Consider the alternative solution of no action, and summarize the impact of that decision.

### To identify short-term and long-term needs, consider three key questions:

- At what level of maturity is the organization today? (Are you using offline spreadsheets, or experienced with advanced statistical modeling?)
- Is your current ERP system of record the long-term technology platform choice?
- What software features are required?

### Regardless of the type, timing, or level of detail, a business case should:

- Define the problem or opportunity.
- Persuade stakeholders that the problem or opportunity is real and that the
- organization needs to take action.
- Convince stakeholders that your recommendation is the best solution for the situation.

Start by ensuring that you have clearly defined the problem or opportunity statement and explained the 'why' behind it. In order to compel action, be specific with the problems and tie the issues to core business fundamentals like revenue generation, cost containment/reduction, and risk mitigation.

Do not minimize the impact of risk. Everyone loves a revenue-generating plan, but leadership has a strong psychological attachment to the capital already in reserve. As the old adage goes, "one in the hand is worth two in the bush."



PART TWO

In part one we outlined the approach, construct and key attributes around building a business case to support supply chain technology investments. In part two we will dive into the details of a sound business case that will compel action from the decision makers. Specifically, we will attack this challenge using a two dimensional, nine box analysis.

### The first dimension is the top factors that motivate organizations to invest in supply chain technology:

- Reducing operating and support costs
- Enhancing decision making
- Supporting customer expectations or demands

### The second dimension is the types of benefits:

- Tangible
- Intangible
- Risk mitigation

Applying these two dimensions to a nine box analysis will yield a compelling, comprehensive business case that should satisfy the financial, operational and customer support stakeholders in the organization.

	Tangible	Intangible	Risk Mitigation
Operational Improvements	- Inventory reduction - Less expediting costs - Less obsolescence	- Worker efficiency - Ability to grow without adding headcount	- Avoid unneeded expansion in plant & equipment - Less workforce attrition
Enhance Decision Making	<ul><li>Inventory reduction</li><li>Fewer production stops</li><li>Fewer maintenance shutdowns</li></ul>	- Responsiveness - Reduce time to decide - Employee satisfaction	<ul><li>Avoid excess inventory build up</li><li>Avoid resource misallocation</li></ul>
Customer Fulfillment	- Margin improvement from fewer lost sales - Lower cost to serve	- Customer retention - Customer satisfaction - Employee satisfaction	<ul><li>Decrease in customer attrition</li><li>Decrease in employee turnover</li></ul>



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### **Tangible Savings**

The most tangible and direct way to build broad support for an ROI is reducing inventory investment without sacrificing service levels. Inventory represents one of the largest assets for producers and distributors. However, it is a mistake to assume inventory dollars removed from the supply chain directly equate to bottom line profit. While a million dollar decrease in inventory will directly impact the balance sheet, it does not directly lead to a million dollars in hard savings.

The profit and loss impact of inventory reduction will be measured against two cost factors: weighted average cost of capital and inventory carrying costs. Each of these factors are expressed as percentages and applied to the net inventory reduction. The weighted average cost of capital (WACC) is the rate a company is expected to pay to finance its assets. Inventory carrying costs percent captures the direct and indirect costs of the movement, storage, and replenishment of inventory. These costs include, warehouse infrastructure and equipment, insurance, labor, etc.

The net P&L impact of inventory reduction as it applies to ROI is the net inventory reduction multiplied by the (WACC) and carrying cost percentages. In our example above, a million reduction in inventory dollars would yield an \$180,000 annual savings; the WACC is 8% and the inventory carrying cost is 10% (\$1,000,000 X 18%). This dollar figure represents tangible, reoccurring savings of carrying less inventory to satisfy demand at the targeted service level.

The next component of tangible ROI is the cost of service interruptions. The impact of stock outs are tangibly expressed in two ways; expediting costs and lost sales. If the customer allows the supplier to fill a backorder, the resulting activities to procure and/or manufacture the missing materials are typically expediting activities, which create extraordinary costs to serve in terms of labor overtime and premium shipment methods. Conversely, if the customer cancels the backordered quantity - or the entire order - then a lost sale occurs.

Gross margin from lost sales and expediting costs are two tangible, financial impacts of poor service that can be reduced, thereby adding to the potential ROI impact.



PART TWO

### **Intangible Savings**

Given today's tight labor market, the most compelling argument for improving supply chain tools and processes is the ability to grow the business without adding head count. A GIB customer recently studied the impact of supply chain efficiency on their materials management group. They discovered a 53% improvement in the ratio between materials management personnel and revenue. Over the four years since implementation of GIB's supply chain tools, the business grew much faster than the operational staff to support that growth, resulting in 53% more revenue supported by each person.

### Summary

Reducing inventory and improving customer fulfillment are two of the most tangible, impactful outcomes for manufacturers, distributors and retailers seeking supply chain optimization. The business case for supply chain technology investments must be set upon the firm foundation of tangible improvements, further supported by the less tangible but self-evident priorities of improving worker efficiency, decision-making, and asset utilization.