



Supply Chain
Technology Adoption:
Address the Key Issues
and Achieve the Benefit

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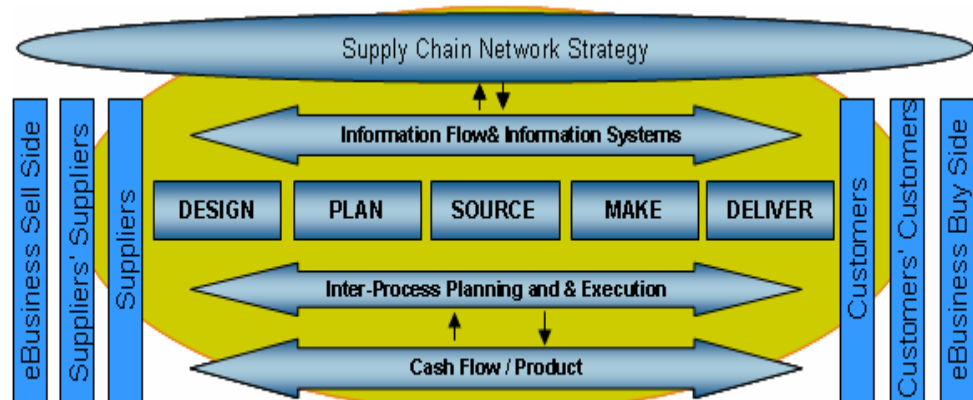
Introduction

In all technology implementations, upgrades, reversals and whole-scale revolutions, the post-go-live benefits the company receives are directly proportional to the time invested developing a strategy up front. In addition, if the recent past is any indication of how much value companies produced with changes to their supply chain, it is apparent that most adopters should have spent more time investigating their needs before they expanded their IT capabilities.

If your company is contemplating changes to its supply chain technology, near-term or several years from now, it is mandatory that you begin with a thorough understanding of your business, including all of the other stakeholders along the value chain. Making good decisions that bring lasting value requires a fair amount of up-front work in this area. This whitepaper will give you a better understanding of key issues and risks that will facilitate good decision-making along the way. Pay close attention to the case studies and examples. After reading this article, you should be able to effectively address the issues and risks in an existing SCM project that includes technology or begin formulating a strategy for the next one.

Supply Chain Management (SCM) – A Definition

For discussion purposes, supply chain management is the set of processes that cover transforming and moving products and information from your suppliers' suppliers through your business to your customers' customers and back, when required. Many now look at Supply Chain Management from a view of managing Demand, Supply and Product.



Source: Supply Chain Council

Strategic Issues When Adopting SCM

It is normal to have more questions than answers when your team begins to assess its needs. Here are 10 leading questions you should ask yourself when beginning your quest for supply chain excellence. Following are a few detailed explanations of the kind of information you might find along the way.

- What is your company or business strategy?
- Where to begin adopting Supply Chain Management Technology?
- Do you have the right people?
- How Much Change Can Your Company Make?
- How tolerant of risk are you?
- What is your vendor and application landscape?

- What is the quality of my data?
- Should You Outsource All or Part of Your Supply Chain?
- How will we support and maintain the new technology?
- How do I justify the investment?

What is Your Business or Company Strategy?

Adopting SCM technology can be strategic or tactical. Debating whether a particular activity is a strategy or a tactic consumes many hours. This paper is not meant to settle that debate for any specific activity. One guiding principle should help. If the action can be broken down into meaningful and related standalone activities, it is probably a strategy. If it cannot be broken down as such, it is probably a tactic.

Your SCM strategy should be a part of your overall business strategy. That company strategy should also include an IT strategy. The company strategy should address the impacts of the market drivers on your business. Therefore, adopting any one of the many SCM technologies available is a tactic that supports your overall strategy to address market drivers. So, before you adopt SCM technologies, it is imperative to confirm the market factors, their impacts on your company, and the higher-level strategies. If they do not exist, are unclear, or are conflicting, the strategies should be redefined before executing any tactical activities such as implementing SCM technology.



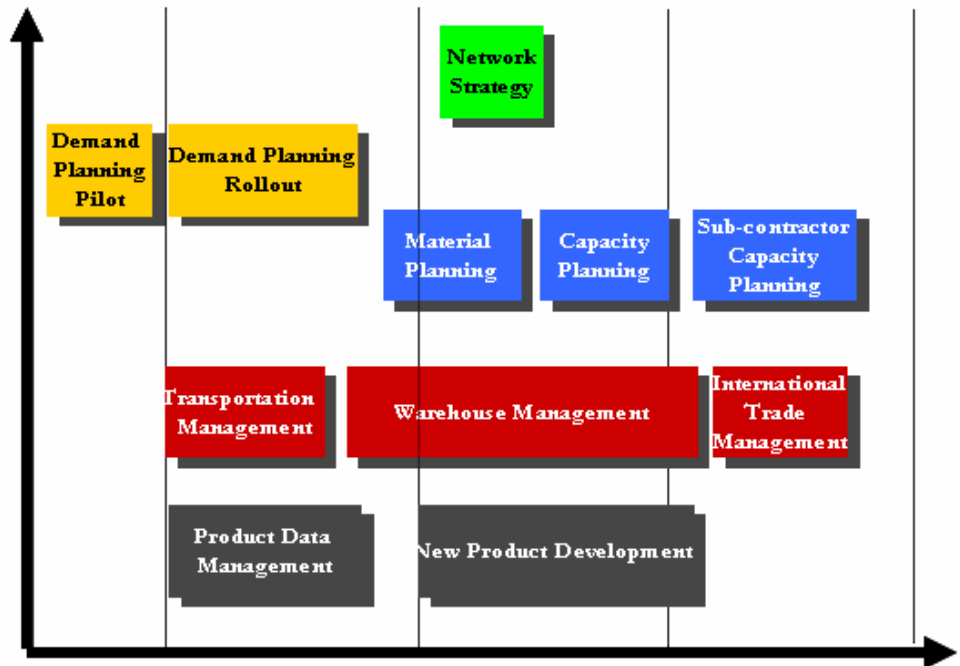
The actions of your customers and suppliers may be relevant to the strategic direction in which your company is headed and in some cases, may dictate your entire future. If your company has less supply chain power relative to your customers or suppliers, you may consider a subservient strategy. For example, if your customer is deploying a collaboration tool in conjunction with its suppliers, you may consider working on your customer collaboration efforts earlier, to strengthen that relationship. Or, if your largest customer is developing a supplier scorecard and supplier rationalization program, you may choose the next supply chain management technology improvement project to be one that relates to that customer.

On the other hand, if you have more supply chain power relative to other players, you may be able to dictate some aspects of a solution to some of your trading partners. For example, a large plastic resin producer may drive customers to use a new ordering system.

Where Should You Begin?

There are a number of dimensions you should consider when deciding where to begin adopting supply chain technology to enable improvement in your business, beginning with the supply chain mega-process (Design, Plan, Make, Source, or Deliver). Consider the stage in the planning/execution funnel. Consider whether or not you should begin with tactical, quick hit projects or strategic/longer term projects. Quick hit projects get done sooner, show progress, develop

momentum, but may have less benefit. Longer- term projects may have greater benefit but require sustained effort and coordination of larger groups. Since having a better understanding of the overall demand picture drives many downstream processes, consider beginning with demand management.



Do You Have the Right People?

To a great degree the successful adoption of any SCM technology depends upon a high performing team of capable members to execute throughout each of the improvement continuum stages. In each stage, team members must perform differently:

Strategize with a broad perspective within the company and across the value chain.

Design a new way of doing business. It takes exposure to new practices, vision, confidence to change the status quo, and energy.

Implement the new process and technology with understanding of the vision. This also requires persistence and organizational change management skills, knowledge of the technology, and attention to detail.

Use new systems. It takes desire to adopt a new way and understanding of the processes and technology. Not all users of legacy systems are interested in learning how to do a new job using new technology. Some users and managers may be hesitant because they may not have the aptitude. Some may fear learning a new way to do the job late in their career. What will you do when the success of your initiative is held back because of the users? In one company, a warehouse manager resisted a new warehouse management system because he did not want the new system to direct the movements of the warehousemen. At an automotive supplier, the production planner resisted the new system because he felt he could develop a better schedule than the new system.

	Project Manager	Super User	S/W Appl Engineer	Sponsor	IT Support	Subject Matter Expert	Process Manager
Strategize							
Assess							
Design							
Select							
Develop							
Implement							
Run							
Measure							

Understand the players you have and the players you need. Bring in others to collaborate with you where needed to assemble a complete team.

Can You Manage the Risk?

Tales of technology implementations gone wrong invariably litter the business press. So let's be frank, there are a variety of risks involved with adopting SCM technology, including financial, technological and organizational risks. Financial risks include projects going over budget and not meeting the benefit projections. Technical risks include technologies that do not work as promised. Organizational risks include your process owners and users refusing to or not being able to cross over to the new solution.

To improve your business with new technology you must also, to some degree, modify processes, organizations, data, and metrics. Risk comes with that change as well.

The more you understand and the better you manage risk, the more success you will have with technology implementations. If you are better informed and more tolerant of risk, you may be comfortable adopting the latest technologies. The same goes with vendor selection. Are you comfortable with a newer, smaller vendor with a concept and an application in which you believe? Or, are you only comfortable with the mature applications from the most stable technology providers?

According to a recent Gartner survey, companies that view themselves as leading edge adopters of technology are using IT as a competitive weapon and are planning to spend more on SCM in the near term. In fact, the more "leading-edge" a company considers itself to be, the more it is likely to spend on SCM. The message is hitting home in the large boardrooms—SCM helps extend competitive advantage.

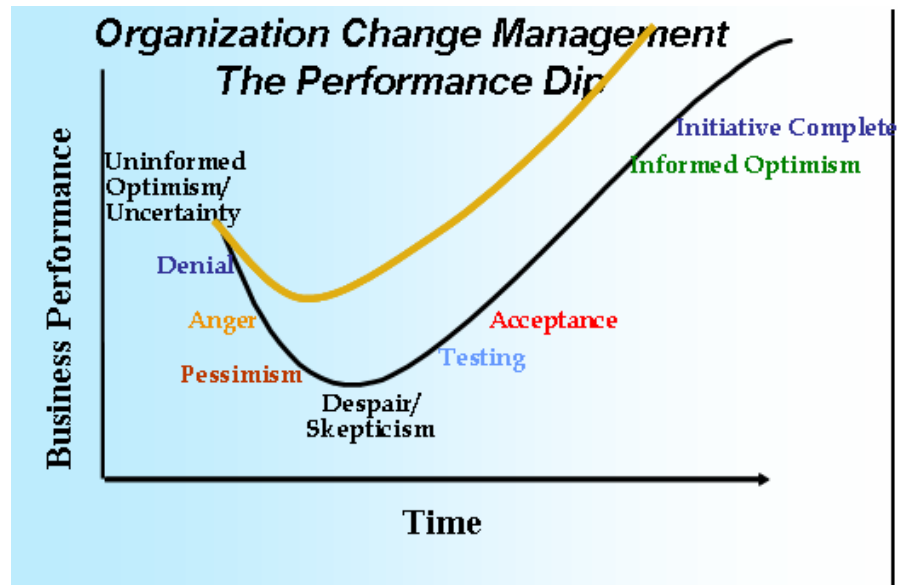
No matter how you characterize your company's attitude toward IT investment, part of your project planning and management must include risk identification and management plans to mitigate their effects if they do materialize.

How Much Change Can Your Company Make?

Research indicates that 90 percent of technology implementations that fail do so because of inadequate change management. In every instance of change, there will be a performance dip. The objective of organizational change management

is to lessen the depth and length of that performance dip. One key to success in these endeavors is a thorough, realistic understanding of your company culture. Assess your company's readiness for change to know where you are starting.

Technology advancement in all organizations requires a change management component tailored to your company. It must address the organizational landscape, communication, education, leadership and stakeholder commitment. When the budget gets tight, do not drop organizational change management because as research shows, failure to manage change leads to project failure time and time again.



What Does Your Technology Architecture Look Like?

You may already have one of the leading **ERP** systems implemented and successfully serving a part of your needs. Now, you are ready to enable the next part of your business with technology. It makes good sense for you to consider the SCM technologies of your current vendors. All other factors being equal, the fewer vendors the better. How well are the SCM modules integrated to the core ones of your provider? What are the incremental benefits you can achieve from a module from an additional vendor? Some providers have built their SCM footprint through acquisition and some have developed the applications internally.

The SCM applications of some enterprise software vendors are integrated more tightly than those of other vendors. Some applications from best of breed SCM vendors are more suited to work with applications of specific ERP vendors; while some SCM or ERP vendors have pre-built integration tools you can leverage to connect systems. Your situation may warrant more tightly or more loosely integrated applications. Changes in your business may drive the desire for SCM systems to be loosely coupled to ERP systems. For example, if you are implementing core ERP at the same time as supply chain planning, you may favor more tightly integrated applications because the way you organize applications and data for your supply chain planning processes is similar to the way you organize the applications and data for your other/ERP enabled processes. On the other hand, if you implemented ERP years ago and view your business differently now, you may not want to change the orientation in the ERP modules. Therefore, a loosely integrated SCM application may be a better option, allowing you to have a different orientation in the SCM and ERP modules. In addition, the incremental total cost of ownership (buying,

integrating, and maintaining) for the best of breed SCM application must be outweighed by the incremental benefit

You should also consider the option of developing and implementing a custom application. Custom application development can best serve you when there are no available applications that fit your needs. It may also be best when the features and functions you want/need are buried into a large application or suite. Consider also the size of your IT shop. Your core business is probably not software development, so your resources should work on projects that support your strategic direction.

What is the Quality of Your Enabling Data?

Data is the fuel that drives supply chain management technology and you must understand what is needed and where it resides in your organization today. If data does not exist today, include in the plan resources to develop and maintain it. And, you must understand the quality of that data. Consider the Routing Data element in the context of a factory planning implementation. Most companies have routings, but few rely on them as heavily as a company in an advanced factory planning system. Experience shows that the quality of the data is directly associated with the ways it is used. If the routing data is not used significantly today, the quality that data will be low. If nothing is done to review and improve the accuracy of the data, the software will function properly in the end but the output will not be what was desired. The appropriate business improvement targets will not be met.

Are You Outsourcing Supply Chain Processes?

Outsourcing decisions will effect your adoption of supply chain management technology and your company should intensely debate the reasons for outsourcing manufacturing, distribution, procurement, returns, order fulfillment, and/other supply chain process. Lessons learned over the past few years show that outsourced processes:

- Require better management
- Require different access to data
- Have users who may be remote/distributed
- Have different security needs

Confirm plans to outsource processes or functions. Evaluate applications relative to requirements that include outsourcing. Outsourcing providers should bring appropriate technology tools to you. Ask what tools they use or will use to support you.

How Will You Support the New Technology?

Going live on your new process and system is not the end of the road, in many cases it's just the beginning. New technology requires care and feeding. Functionally, users need a place to go for deeper knowledge. Consider establishing an internal help desk, a super user, or a business analyst assigned to the process/technology. It is important for those responsible for the deeper knowledge to keep up with any new features that a software vendor adds.

On the technical side, applications and databases need to be tuned and maintained. As use expands, processing power, storage, and network bandwidth may need to be added to keep performance high. If internal resources are not available to support a system functionally or technically, then you can outsource that support as well. Consider these needs:

- Knowledge management
- Ongoing training
- Upgrades

- Help desk
- System tuning

How Do You Justify the Investment?

You will have to justify technology investments in some way, from the highly quantitative to the completely qualitative. Observe carefully and understand how decisions are made and justified at your company. Typically, metrics like ROI, NPV, EVA, Payback, and TCO are used. Many companies justify their investment on the new abilities that they will gain, or the added flexibility.

There are a number of metrics that supply chain management technology can impact, but regardless of whether you base your decision on quantitative or qualitative model, encourage the business process owners to commit to getting specific benefits. More importantly, document their goals. Those benefits can take the shape of a reduction of inventory for a certain class of SKUs or the ability to run “what if” scenarios or a number of other items. Benchmark your performance against other companies on key performance indicators (KPIs) and relate the supply chain management technology adoption to those KPIs. Do some quantitative analysis and estimate of the benefit.

Conclusion

Experience is the best teacher. During the past few years, we have seen a number of supply chain technology projects succeed by addressing these factors. Study and understand your organization, its value chain, its tolerance of change, and whether or not you have the right personnel to achieve your goals. Approach technology innovation with an adventurous spirit, know the risks and prepare yourself for a few surprises along the way. By familiarizing yourself with the Action Plan below and following its guidelines, your project will be a case study for supply chain excellence.

Action Plan

If you are considering adopting SCM technology, follow these steps:

- Develop/confirm strategy – you should have Business, IT, and SCM strategies and they should all fit together
- Develop tactics to support that strategy – enabling a SCM process with new technology can be one tactic
- Assess the gap between appropriate use of best practices and your current processes
- Develop a roadmap – the roadmap prioritizes and relates a series of improvements based on your strategies, objectives, current processes, and strategic issues in adopting SCM technology
- Measure performance – the start of an improvement project is a perfect time to begin to capture baseline performance metrics and compare against external data sources
- Put in place solid ongoing support capabilities
- Start again – to refine your processes and make the next great step to improve your business

And, consider these key issues:

- How does your supply chain management strategy relate to both your overall strategy and to market drivers?
- Where is the best place to begin?
- What people resources are needed at each phase of the improvement cycle?
- What does the organizational change management landscape look like?
- What are your risk tolerances?

- How does the technology architecture support or confine you?
- How good is your data?
- How will outsourcing affect you?
- What is the plan for ongoing support?
- How do you justify the investment?

About Hitachi Consulting

As Hitachi, Ltd.'s (NYSE: HIT) global consulting company, Hitachi Consulting is a recognized leader in delivering proven business and IT solutions to Global 2000 companies across many industries. We leverage decades of business process, vertical industry, and leading-edge technology experience to understand each company's unique business needs. From business strategy development through application deployment, our consultants are committed to helping clients quickly realize measurable business value and achieve sustainable ROI.

Hitachi Consulting's client base includes nearly 30 percent of the Fortune 100 as well as many leading mid-market companies. We offer a client-focused, collaborative approach and transfer knowledge throughout each engagement. For more information, call 877-664-0010 or visit www.hitachiconsulting.com.

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About Hitachi

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