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Best Practices for Supply Chain Innovation & Organization

Who cares about supply chain management?

Everyone does.

Prestigious British logistician Keith Oliver first coined the term *Supply Chain Management* in 1982, during a newspaper interview. Although the terminology is relatively recent, the practice of *supply chain management (SCM)* is not. The idea of an integrated network including raw materials, production facilities, and transportation services seemed to flourish right around the time of the industrial revolution in Britain and the United States. It's been nearly 200 years since the birth of mass-production, and the role of managing a supply chain has gone global and become more complex.

Although supply chain technology and strategies have evolved over time, many organizations are stuck in the past, implementing outdated tactics and failing to react to changes in the industry. Although in many cases SCM problems are company-specific, a [recent study by SCMWorld](#) shows that there are a few major issues that plague the majority of organizations utilizing *Supply Chain Management*. The purpose of this guide is to identify and propose solutions to the aforementioned problems, and to observe recent innovations that will have a resounding effect on the SCM industry. This leads us to the first challenge that Supply chain managers are facing:

Expecting Technology to Handle Everything

SCM software has advanced rapidly and has helped to simplify and organize many of the traditional administrative tasks associated with *supply chain management*. One thing to keep in mind when using SCM software is that it usually cannot manage your vendor's resources. Unless your organization owns every step of the supply chain from natural resource to consumer purchase, there will always be room for unexpected errors in the process.

For an example of faulty supply chain management, look at Target's recent expansion into Canada. In 2013, Target Corporation opened 124 stores, and three distribution center in Canada, projecting to gain a large share of the market. Only two years later, Target has announced that they will be [closing all of their Canadian stores](#)—133 in total. Why did the expansion fail so miserably? There were a number of factors involved, but the primary reason cited is that the [supply chain was poorly developed](#) and as a result, many locations were plagued by empty shelves.

Target tried to expand too quickly, and did not anticipate that local farmers and distributors would not be able to service their stores in a timely fashion. The cost of Target's short-sightedness? Over one billion dollars.

What other problems are supply chain managers ignoring?

Using Past Sales to Predict the Future

This is a tactic commonly used by new or inexperienced supply chain managers. Unfortunately, uncontrollable variables will almost always have some impact on sales from year to year, month to month, and even day to day. A better tactic for supply chain managers to take is to track sales on a day-to-day basis, or as frequently as possible.

One popular and effective way that supply chain managers of small and medium businesses track their inventory levels is by having field reps visit retail locations and collect data on a regular basis. This is often even more effective than tracking



the inventory in real-time, because it gives reps a chance to build a relationship with retail managers, perform field research on competitor products, and perform merchandising audits to ensure their product is properly represented.

Communication Failures

Communication failures anywhere in a supply chain may have catastrophic consequences. In [*A Review of Approaches to Supply Chain Communications: From Manufacturing to Construction*](#), it is mentioned that although technology has advanced to allow more precise methods of supply chain communications, such as using the Internet, a variety of problems still exist.

The paper states that although automating supply chain processes and reviewing them regularly is the optimal solution, many organizations are failing to implement it.

“Manual data entry is widespread, even when machine sources are available; critical information is often manually re-entered at many points in the chain;”

“Organizations of all sizes and across industry tiers use “informed” estimates rather than actual or production plan data in scheduling, materials management, and expediting;”

“The use of translators to convert data from one format to another is almost universal, even between systems that are nominally compliant with established protocols;”

How should the current situation be remedied? The study recommends a three-phase process:

- Phase 1: Define strategic objectives and define the boundaries in which you intend to implement changes.
- Phase 2: Identify critical issues and prioritize them, bring realistic about

the constraints placed on your supply chain.

- Phase 3: Execute your re-design, set up a strict monitoring process, and ensure that the entire organization is on board with your new system.

Implementing this three phase system is a great starting point for supply chain managers who are looking to minimize communication failures across the board and automate data input processes. However, simply controlling the way data is taken in is not enough—there are other variables at play in a supply chain which can bring entire operations to a grinding halt. Which brings us to our next problem:

Cost Control

In industries where costs have risen dramatically within a short period of time, such as the [healthcare industry](#), companies are looking to save money wherever possible. In many cases, this means looking to the supply chain to remove any inefficiencies.

To begin cutting costs, look at three major areas where businesses often miss out on savings.

Regulation and Restriction

Whether they are restrictions imposed by the government or by a regulatory body specific to your industry, bureaucracy can be a confusing, time consuming, and costly distraction for your supply chain. If at all possible, supply chain managers should consider outsourcing or relegating their regulatory management to one of their supply chain partners. For example, if the FDA requires food imports of a certain standard to be sold in retail locations, consider having your shipping provider handle the review and approval of the product. Outsourcing to a reputable company could save your brand image from the embarrassment of a recall or something worse. Even if it costs a bit more in the short-term, the long term savings—in terms of money, time, and sanity—are usually worth it.

Infrastructure Inefficiencies

This is not infrastructure in the traditional sense, but rather refers to the method of data collection and transport of goods—most physical components of the supply chain. Vehicles, packaging and processing, even production processes all are areas where inefficiencies are often quickly found and addressed. Regularly review your data input software, and consider making the switch to some form of [Field Activity Management](#) software which allows reps collecting data to communicate with back-office managers in real-time.

Employee Education

Sometimes, all you need to do to save some money is speak with employees involved in the supply chain. Regular training and updates on how other links in your supply chain are functioning are vital to the continuance of a smooth operation. Every employee should know exactly what and when something is happening at another point in your supply chain process—limiting information hurts the overall process and can cost a serious amount of time and money.



Be Honest With Yourself:

If there are serious inefficiencies in a supply chain, many managers will start to think about the short-term costs of remedying their problems, and allow leeway when dealing with minor problems. Supply chains are only going to get more and more complicated. Dealing with problems in the present or as they arise is the only way to stay competitive and cut costs in your supply chain.

Innovating

Until now, we have only discussed reactive approaches to supply chain issues. Responding to problems as they arise, however, is not the best way to stay competitive. Instead, supply chain managers should do their best to proactively plan ahead for disruptive technologies and other supply chain-related issues which may arise. Expect to hear more about these three major issues in the very near future:

Sustainability

Consumers are becoming more aware of what exactly their product or service is, and where it came from. Environmentally-conscious consumers expect businesses to work on co-existing with the world around them when producing, shipping, and processing their goods, yet we still regularly hear about organizations polluting and destroying vital parts of the ecosystem.

Luckily, the recent wave of consumer concern has increased R&D in sustainable supply chain practices and regulation pertaining to site cleanup and greenhouse gas output. Unfortunately, adhering to these regulations and expectations often results in additional cost—something small and medium businesses may have difficulty handling.

[The Future Laboratory](#), a UK consulting group, has presented a three-tiered system for developing sustainable supply chain practices, which has become the industry standard. The tier-system works as follows:

1. Getting the basics right

Educate employees on regular practices, such as hitting the lights on the way out of the office, recycling, and using eco-friendly forms of transportation when possible.

2. Think Sustainably

Apply the common knowledge above to your supply chain. Begin to research exactly how your practices are affecting the environment on varying scales—the immediate area, local, and global environment. Begin to make changes in your supply chain process, incorporating eco-friendly packaging or less polluting production methods.

3. Understand the Science of Sustainability

Now that you have made some quick changes, begin to fully review and critique your entire supply chain. Create a long-term strategy to keep sustainability improving, taking into account costs, the likelihood of increased regulation, and consumer concern.

Mobility & Machine to Machine Tech

[Machine to Machine tech](#) allows various levels of the supply chain to communicate with one another, bringing a new level of automation to the process. Imagine if as soon as production was finished, the machines performing the actual production could alert other machines, which handle packaging to begin their part of the process, and then if those machines could turn on the truck outside which will ship goods to a facility for processing. This type of automation is already being employed in some large-scale operations, and as costs drop, it will become a seriously viable option for small and medium business owners hoping to expedite their supply chain processes.

3-D Printing

By now, most businesses owners and consumers are familiar with small-scale consumer 3-D printers, those incredible machines which allow someone with very



little production knowledge or technical skill to craft a tangible object in a short period of time. What most people don't know however, is that 3-D printers are being developed on a larger scale for production processes, and are shaving *weeks* off of production times in some cases.

Not only is 3-D printing often faster than traditional production methods, but it also allows a deeper level of consumer customization as well—[SupplyChainMinded](#) gives the example of an iPhone that allows for part and case customization at the time of ordering. Applying this level of detail to a large scale operation has never been financially viable in the past, but 3-D printing is presenting supply chain managers and business owners with a bevy of new and exciting opportunities.

Supply Chains of the Future

It is impossible to completely prepare for whatever the future may hold, but supply chain managers can and should address issues with their current supply chain. Controlling costs, improving communication, and using the right data collection methods, hardware, and software without becoming completely reliant on those tools are fantastic ways for managers to save money and frustration with their current supply chain.

By keeping an eye on what changes may further optimize or hinder your supply chain, you can become a more competitive organization overall—offering better customer service, building better relationships with supply chain partners, and in many cases cutting overall costs. Supply chain management is not easy by any stretch of the imagination, but with a little bit of forethought and the application of new ideas, your supply chain can become a finely-tuned model of efficiency.

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