



Center for Value Chain Research Newsletter

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Directors' Column

Lehigh's CVCR: Reaching Locally and Connecting Globally

We begin this fall newsletter by thanking so many of you for taking the time to send us emails, for contacting us by phone, for visiting our website, and for meeting with us in person. We've heard from so many of you telling us that you find the articles and write-ups in the newsletter and the content available on our website very informative and helpful as you go about growing and managing your business. In our conversations with you during the past several months we have been especially thankful for your support of the CVCR, your interest in the center's on-going activities, and your praise for the relevance of the articles and information offered in our quarterly CVCR Newsletters and on our website.

We are extremely proud that in the past two years the CVCR membership has continued to grow. We are currently working with a number of firms on research projects that are proving to be beneficial both to the firms and to members of the Lehigh faculty. We are finding that more firms are contacting us than ever before, and that their locales are more geographically diverse; the CVCR's reach is not just local but is now becoming global as well. For example, we are now communicating with firms not only in the US but also in Europe, South America, Africa, the Persian Gulf, and the Pacific Rim. In addition, our web site is visited by professionals and researchers from more than 85 countries around the world.

As a result of our growing local and global reach, we experienced a packed house for the CVCR symposium that was held at Lehigh University on November 6 and 7, 2007 with over 40 companies and 120 attendees participating. With this diverse array of organizations, this year's Fall Symposium again offered a stimulating and interesting venue to reconnect with friends and colleagues, share ideas, and think about issues that can help us grow and manage our organizations more effectively.

We thank you again for your continued support of the CVCR and look forward to working with you in the future.

Mike and Larry

Agile Planning

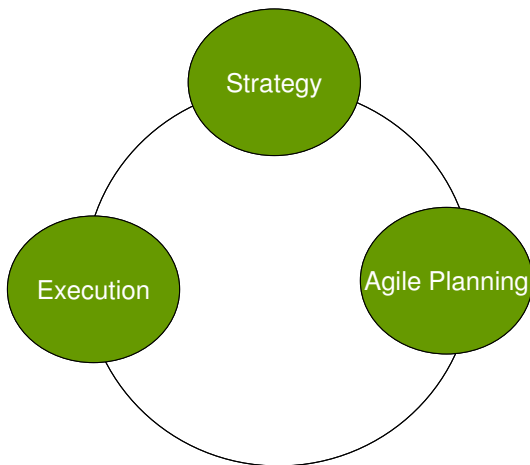
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Introduction

If a plane starting in London and headed for Dallas is just one degree off its course, it will end up in Mexico City instead. Interestingly, most flights are off course by greater than a degree over 95% of the time (because of changing wind conditions, the nature of the load in the plane, etc.). How do they still manage to reach their intended destination? (Once in a while your luggage still ends up in Mexico City, but that is a story for another time!)

The reason they are able to do that is because airplanes have a real-time course-correction system—an “agile planning” process that links strategy and execution.

Organizations also encounter turbulence, thanks to changing market conditions. An agile planning process can effectively link strategy and execution and help organizations reach their intended destinations, in spite of all the variations that they encounter along the way. Such a process is like a GPS (Global Positioning System) that helps firms determine where they are, and how to get where they want to go.



Creating an effective GPS that links strategy and execution using an agile planning process demands a clear idea of the following:

1. The destination (Dallas)
2. The path to get there (flight plan)
3. Where you are relative to the path at any given point in time (the degrees off course)
4. How to get back on the path (agile course correction)

1. The Destination

In the business context, the destination is a set of goals that address the following perspectives:

- Shareholder perspective that reflects financial success
- Customer perspective that reflects market success
- Organizational perspective that reflects productivity and the foundation for continued success

This should be visible and available for all employees in a form that is easy to understand.

In an organizational context, it is important to take the time to ask the question, “What is the right destination?” What are our most important goals?” There are two possible ways of asking this:

- Incremental - How can we improve on what we did last year by x%?
- Optimal - What is the best we can do? Given our current competencies, what is our highest potential? What other competencies would we need to take our potential to the next level?

Most organizations use the Incremental approach. On the other hand, “optimal” thinking was a key part of Jack Welch’s leadership approach in his legendary tenure as CEO of GE. Technology can help organizations transition to the “optimal” approach and get similar performance enhancements by helping them understand the maximum value creation the organization is capable of, taking into account resource availability, capacity, throughput, customer satisfaction, cash available, etc.

2. The Path

What is the path to get there? How do I get there in the shortest time using the least fuel? Given constraints, what is the best way to get there? Which constraints do I need to remove or get around? Having a clear “path” is about presenting the cascading effect of the goals in a cause-effect relationship that connects financial performance with operational metrics in a visual way that makes it actionable for every individual in the organization and thus answer two important questions in their minds:

- *Why* am I being asked to improve what I am doing? How does this connect with the bigger picture?
- *How* can I meet this goal? What do we have to get right in order to meet this goal?

3. Variation

The pilot knows that he will be off course 95% of the time. Similarly, businesses need to expect variation and, like the cockpit in the plane, have a clear view of what the variation is—where you are relative to where you should be, and what the nature of the variation is.

Expecting variation, distinguishing between common and special causes, between noise and signal, and building the flexibility and agility to cope with variation can create significant improvements in performance.

4. Agile Course Correction

Is this variation noise or signal? Is course correction required? If so, what are the root causes? What changes should we make to the planned path? What is the path that will get us from here to the destination in the least time using the least fuel? The most critical element here is to cascade the implications of course correction right through the organization, and to make it visible and relevant to each role and answer questions such as “What are the root causes?”, “What alternatives are available?”, “What are the financial and operational implications of the alternatives?” Technologies to support powerful “What If” analysis can greatly enhance an organization’s ability to make the right course-correction decisions.

That the flight reaches the intended destination in spite of all the variation is due to the speed, flexibility and agility of the course-correction system. Similarly, organizations need to have an agile and flexible planning process that helps them make rapid course corrections.

A typical organization with a monthly planning cycle has 12 opportunities for course correction when it comes to meeting its annual goals, and 3 opportunities for course correction for meeting quarterly goals. With a weekly planning cycle that increases to 52 and 12 opportunities, respectively. With a daily course correction system, that drastically increases to 365 and 90 opportunities—dramatically increasing the chances of reaching the intended destination.

In a customer-dominated world with fierce competition and fleeting opportunities, and a shareholder-centric capital market that punishes earnings surprises, it is critical that organizations embrace agile planning processes that connect strategy and execution. Creating an effective GPS that links strategy and execution can become the cornerstone of an agile planning process, and can help navigate the organization—through all the vagaries of fickle customers and volatile markets—to the right destination.

What's in a Name?

By: Joel Sutherland, Managing Director, Center for Value Chain Research, Lehigh University

Introduction

I was recently invited to make a presentation to a well known global consulting group in Princeton, New Jersey. Their supply-chain-practices team wanted to gain a better understanding of the definitions developed by the Council of Supply Chain Management Professionals (www.cscmp.org) for logistics and supply chain management. It wasn't that they were ignorant, or unsure of the terms—quite the contrary, they are recognized leaders in the field. Rather, it was more out of curiosity and possibly a way to validate their own understanding. They were aware that during my term as President (now Board Chair) of this professional association in 2001-2002 that the Council had begun to address a possible name change to include "supply chain". I realized after preparing and delivering this presentation that this story had never been fully told before. I thought the CVCR Newsletter would be an excellent medium to share it with you as well.

How it Started

In October 2001, I became president of the Council of Logistics Management, or CLM. Shortly thereafter, a respected member recommended that the Council change its name to incorporate "supply chain". The member argued that professionals had adopted the term and many titles had been changed over the last decade. He further argued that many universities had supply chain programs and degrees—so why shouldn't CLM change with the times? This was not the first time such a change had been recommended. At least twice over the previous five years, the Council had considered a name change but raised the same question—"How can we change the name of a professional association to include a term that no one seems to understand or agree with?"

The Council's definition of logistics at that time was: "Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements." Given this definition, the logical question was: What is the "supply chain", or more broadly, what is "supply chain management"? There was no easy answer, in part because there were *so many* answers—at the time, there were literally hundreds of definitions for the term. It seemed that every time someone needed to define the term they created a new definition that best suited their needs. This, of course, only added to the confusion already permeating the industry.

Some industry practitioners contended that "supply chain" was just another term for "logistics." Others said it was broader, including such activities as purchasing, engineering, production, finance, marketing, and related control activities. A third group argued for a still broader interpretation, in which the supply chain includes a company's suppliers' suppliers and a company's customers' customers, thereby extending far outside the traditional enterprise. The bottom line was that there was no universally accepted definition for "supply chain."

Moving Forward

Despite all of the arguments against a name change, it was clear that the issue would not go away. If the proposal was voted down, it would just keep resurfacing. It was time to fully address the issue. The Board selected a team of distinguished logistics/supply chain management professionals, from every discipline, to develop a definition for the term "supply chain management" and to answer the following fundamental questions: "Does the Council provide education in all areas of supply chain management? Do we conduct and disseminate research in all areas of supply chain management?" If the answer to

these questions was “yes,” then the Council was open to changing the association’s name. In mid-2002, this committee began conducting rigorous studies in search of the answers.

After a year-long effort, the committee had finally developed its definition—or two definitions. You see, the committee of six could not agree on a common definition. Three voted for a definition that would allow for a “yes” answer, while the other three were in favor of a definition that would have required a “no” answer. They were at a stalemate. The committee agreed to leave it up to the Council Board.

Put to the Vote

In mid-2003, the committee presented their two definitions to the Council Board along with an explanation of the rigorous process they had followed. The competing definitions posed a dilemma to the Board. After intense debate and discussions over the two definitions, a motion was made to vote on the options. Not surprisingly, the Board itself was split—eight to five in favor of the definition that would allow the “yes” answer. Applying good judgment to the process, the Board decided to conduct a quick independent survey of selected members, and within a few months the results were in and ready to be discussed.

The Final Answer—For Better or Worse

The results of the survey were in favor of the definition requiring the “no” vote. Clearly, this meant the Board would not be able to move forward with the name change. But *hold your horses!* By this time, so many on the Board were expecting the results to support the “yes” definition that the negative feedback was difficult to accept. In the end, there was another vote and, while again split, the vote for the “yes” definition won out—opening the door to a name change to include “supply chain management”.

Commentary

The name change to the *Council of Supply Chain Management Professionals* has been positive for all who are in any way engaged in this field. It has broadened the scope of research and education that the Council can now engage and has elevated the understanding and appreciation of this field of work worldwide. But further research will need to be conducted to more accurately define “supply chain management.”

Both academics and practitioners need to be involved. Academics should continue a program of research that examines what supply chain management is and is not and how value can be created by more effectively managing the supply chain. Practitioners should actively share their experiences at professional conferences and contribute to professional trade publications. Finally, research centers such as the Center for Value Chain Research will play a vital role in the understanding and evolution of supply chain management by bridging the gap between academia and industry. This will be accomplished by promoting and conducting research and information exchange through the integration of emerging theory and best practices.

Look for *What’s in a Name? Part II*, in our next (winter) Newsletter. We’ll be addressing the term “value chain”.

News and Upcoming Events

Air Products (www.airproducts.com), a worldwide manufacturer of atmospheric gases, process and specialty gases, performance materials, and equipment and services, is the newest member of the CVCR. Allentown-based Air Products is sponsoring two research projects at Lehigh, one focused on designing supply chain networks that are resilient to disruptions, and one focused on the optimization of production schedules in the presence of volatility in electricity prices. Part of this research is being conducted jointly with researchers at Carnegie Mellon University.

Our annual CVCR Fall Symposium on *Transforming Lean from Theory to Practice* was held November 6-7, 2007. The event started with a networking and student recruiting dinner on November 6, followed by a full day of presentations and discussions on November 7. The symposium featured speakers from Boeing, Hewlett Packard, The Hershey Company, Hytrol Conveyor, Dresser-Rand and Supply Chain Visions. There were over 120 registrants representing 40 different companies from a wide variety of industries. The symposium was co-sponsored by the Council of Supply Chain Management Professionals (www.cscmp.org).

Lehigh University's part-time MBA program has been named one of the nation's best by the editors of *BusinessWeek* magazine in its November 1, 2007 issue. Lehigh earned the top spot among part-time MBA programs in the Mid-Atlantic region—and placed in the top five nationally. The program ranked in the top 10 in both academic quality and student satisfaction, and scored an "A" in both teaching quality and curriculum from its students. Paul R. Brown, dean of the College of Business and Economics since this past July, said, "The program remains competitive and is increasing its stature because of its integrated curriculum, which is designed specifically to meet the demands of the market." The complete article and interactive rankings chart, as well as Lehigh's part-time MBA profile, can be found on [BusinessWeek's web site](#).

On November 12-13, 2007, Joel Sutherland presented at the Field Service – Long Cycle Forum in Atlanta, GA. For more information check out: www.fslongcycle.com.

On January 28-31, Joel Sutherland will be presenting and leading roundtable discussions at Interlog 2008, in Lake Buena Vista, FL. For more information check out www.wbresearch.com/interlogusa.

The CVCR continues to improve its website to provide more content and value. We recently added a members-only feature to provide our members access to a growing library of white papers, research papers and presentations. Check it out at www.lehigh.edu/~inchain, and stay tuned for additional improvements throughout the year.

Questions? Comments? Feedback?

If you have questions about the CVCR or would like to discuss the content of this newsletter, please contact Joel Sutherland at 610-758-6428 or at joel.sutherland@lehigh.edu. We look forward to hearing from you!