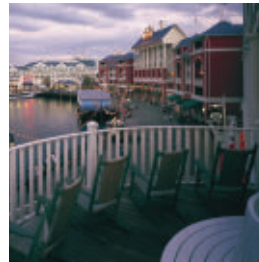


# INSIDE SUPPLY MANAGEMENT<sup>®</sup> MAGAZINE

NOVEMBER | DECEMBER 2016

Vol.27 No.9 \$15.00





# Registration Now Open for ISM2017

The Biggest Supply Management Conference of the Year

The ISM2017 Annual Conference promises to be an exceptional, world-class event. Top supply management leaders from some of the world's most successful companies will lead sessions with actionable takeaways you can implement immediately.

Act now: You can **save over 40%** by registering before the price goes up.  
Teams of five or more **save 50%**. Don't wait! Get your savings now!



Are you interested in sponsoring or exhibiting at ISM2017? Contact ISM Sales at 800.888.6276 or [ISMSalesDept@institutehorsupplymanagement.org](mailto:ISMSalesDept@institutehorsupplymanagement.org).

[ism2017.org](http://ism2017.org)



**ISM2017**

May 21-24, 2017 • Orlando



## Features

### COVER STORY

#### 16 Now Trending!

Six megatrends are reshaping the supply chain of today and tomorrow.

By Sue Doerfler

## Report On Business®

### 12 Manufacturing

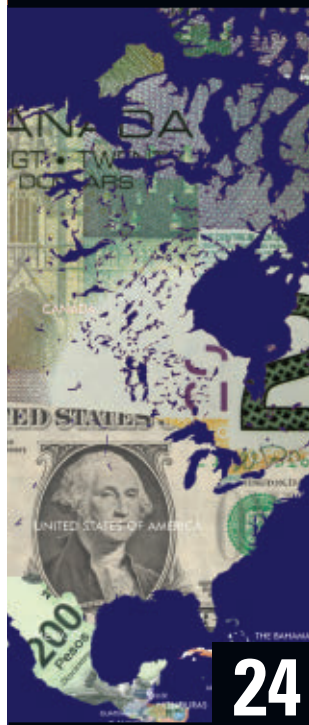
The latest PMI® and manufacturing indexes.

### 13 Non-Manufacturing

The latest NMI® and non-manufacturing indicators.

### 14 Global Business Trends

International news items and indicators, plus a market trends report.



#### 20 Safe Handling

By recognizing where potential issues might occur and improving accountability and traceability, supply managers can mitigate food safety risk.

By Sue Doerfler

### GUEST COMMENTARY

#### 24 Principles and Practicality: Foreign Trade and the Global Supply Chain Executive

By Sean Ryan





## Departments

- 6 Just in Time**  
News, notes and quotes — just when you need them.
- 38 NewsLine**  
ISM® member and volunteer news.
- 40 Point to Point**  
Focus on supply chain logistics.

## Columns

- 4 Editor's Letter**  
New Look Ahead  
By John Yuva
- 5 ISM Voices**  
Improving Job Role Alignment  
By Jim Barnes
- 8 Practitioner Talks**  
Best Practices for SRM Across Countries and Regions  
By Katherine Radtke, CPSM, CPSD, CPCM
- 10 Mastery Matters**  
The Demands of Dual Disciplines  
By Rene G. Rendon, CPSM, CPSD, C.P.M. and Henry F. Garcia, CPSM, C.P.M., A.P.P.
- 30 CAPS Research**  
The Strategic Importance of Supply Management  
By Genevieve Gil, MBA, and Steve Lutha, MS
- 32 Tapping Into**  
A Tailored Approach to Assessing Cyber Risk  
By Timothy Hall
- 36 ISM Certifications**  
CPSM's Continuing Strength and Relevance  
By Nora Neibergall, CPSM, CPSD, C.P.M.

# INSIDE SUPPLY MANAGEMENT®

MAGAZINE

ISM® Publishing Staff

**Thomas W. Derry**  
Chief Executive Officer

**Tony Conant**  
Chief Operating Officer

Editorial

**John Yuva**  
Managing Editor  
jyuva@instituteforsupplymanagement.org

**Lisa Arnseth**  
Publications Coordinator

**Sue Doerfler**  
Publications Coordinator

**Dan Zeiger**  
Publications Coordinator

**Kristina M. Cahill**  
Research Manager

Production & Design

**James Cain**  
Design Strategist

Advertising

**Kelly Rich**  
National Event Sales  
krich@instituteforsupplymanagement.org

**Suzette Tarantini**  
National Event Sales  
starantini@instituteforsupplymanagement.org

Inside Supply Management® (ISSN#1538-733X) is published 9 times a year (January/February, March, April, May, June/July, August, September, October, November/December) by the Institute for Supply Management®, 2055 E. Centennial Circle, Tempe, Arizona 85284. Telephone: 480/752-6276, extension 3071 (Editorial), extension 3043 (Advertising). Copyright ©2015 by the Institute for Supply Management®. All rights reserved. ISM® affiliates may reprint articles in their newsletters and magazines with credit given to Inside Supply Management® and author, unless noted otherwise within article. Requests for reprints by nonaffiliates must be approved by ISM®. Please send requests to the address above. Periodicals Postage paid at Tempe, Arizona, and additional mailing offices. POSTMASTER: Send address changes to: Inside Supply Management®, 2055 E. Centennial Circle, Tempe, Arizona 85284 or email to [custsvc@instituteforsupplymanagement.org](mailto:custsvc@instituteforsupplymanagement.org). Publications Mail Agreement Number 40048267. Send return addresses to: Canadian Institute for Supply Management™, c/o Global Prime Office Network, 130 King St. W Ste. 1800, Toronto, ON, M5X 1E3. Inside Supply Management® is the official publication of the Institute. ISM® members receive the publication as part of their membership fee which represents \$24 of their total fee. This fee is non-deductible from membership dues. Subscriptions to university and public libraries are \$48 annually. Single copies are available for \$15. The authors of the articles published in Inside Supply Management® are solely responsible for their accuracy and content. Opinions expressed in the articles and materials published herein do not reflect the opinions of ISM® unless it is expressly stated that such opinions have been formally adopted by ISM®. The publication of an advertisement by Publisher is not an endorsement of the advertiser nor the products or services advertised. Publisher assumes no responsibility for claims or statements made in an advertisement.



**Institute for Supply Management®**  
2055 E. Centennial Circle, Tempe, AZ 85284  
Phone: 800.888.6276 (U.S. or Canada) or  
+1 480.752.6276 (all others) | Fax: +1 480.752.7890  
[www.instituteforsupplymanagement.org](http://www.instituteforsupplymanagement.org)







**SAVE  
US\$150**  
per registration  
with a team of  
3 or more

# Keep Your Eye on the Prize with an ISM Seminar

**Supplier Assessment and Performance Measurement: Ensuring Promised Value**

It's said that a supply management organization is only as good as its suppliers. For professionals seeking to increase value in their organizations, the most common first step is creating a top-notch, cutting-edge supplier assessment and evaluation program. This seminar will explore supplier assessment, selection, performance measurement and compliance. When those critical processes are performed properly, the results can improve quality, reduce total costs and supply risk, and provide continuous improvements in supplier performance.

January 25-27, 2017.....Las Vegas, NV

**Best Practices in Procurement**

Want to benchmark with the best? Learn from the organizations that set the standard for supply management excellence. Find out how to take your performance to new levels of excellence, increasing your professional value as well as your organization's.

February 8-10, 2017.....Las Vegas, NV

**Fundamentals of Inventory Management**

Inventory has a major impact on a company's bottom line. That's why this seminar, which explores the core functions of inventory management, is a must for supply management practitioners. This comprehensive seminar will analyze and examine ways to implement various order processing and distribution tools for a more accurate measurement of inventory performance. It also will look at how to improve forecasting methods and examine inventory systems, software and other inventory management technology.

February 13-14, 2017.....Phoenix, AZ

**NEW**

**Excellence in Strategic Risk Management**

If the thought of unseen risk lurking along your global supply chain keeps you up at night, this is the seminar for you. It's impossible to eliminate all risk, but you can prepare for it by learning to identify it, analyze it, anticipate its impact and determine its probability. This must-attend seminar will help you to reduce and mitigate risk and will give you a solid understanding of risk analysis, managing risk, compliance and execution.

February 27-28, 2017.....Chicago, IL

# Editor's Letter

from the publications director

By John Yuva



## New Look Ahead

Welcome to the last issue of *Inside Supply Management*® for 2016. We've covered a variety of topics this year and are excited about the content for the next 12 months.

As colorfully indicated on our cover, we have an article about trends — megatrends, to be exact. On page 16, read about six megatrends affecting the supply management profession with the power to disrupt as well as transform relationships with suppliers and customers. And while technology is represented, most trends are focused on the evolving role of supply management into such things as an innovator and a solutions architect for an organization.

This month's issue also includes a guest commentary by Sean Ryan, a partner with A.T. Kearney, who advocates for the protection of an international marketplace that supports free trade. On page 24, Ryan provides arguments for supporting free trade, a major U.S. foreign policy issue that in today's political climate impacts economic stability and the global supply chain landscape.

Those are just two articles in a packed issue to get you through the holidays until our next issue arrives.

In my October column, I spoke about changes coming to *Inside Supply Management*. Beginning with the January/February issue, we're thrilled to introduce a completely new look and feel for your member publication.

As you make your way through the pages, you'll recognize new column headings. I've included below the new column titles, along with their former names.

- **Perspectives (Practitioner Talks)**. A first-person Q&A with a supply management practitioner.
- **Competencies (Mastery Matters)**. A focus on critical supply management competencies that help comprise the ISM Mastery Model®.
- **Research (CAPS Research)**. A look at supply management research conducted by ISM® and CAPS Research.
- **Insights (Tapping Into)**. A view into trends impacting supply management today and tomorrow.

The magazine reflects months of brainstorming and planning. As the profession and ISM evolve, so too should *Inside Supply Management*. We're proud of the outcome and hope you'll enjoy the new look and feel of the magazine. As always, let us know what you think! **ISM**

## INSIDE SUPPLY MANAGEMENT MAGAZINE

### ISM® Editorial Advisory Board

**Jami Bliss, CPSM**

Teva Pharmaceuticals

**Joe Cavinato, Ph.D.**

Thunderbird School of  
Global Management

**Ric Freeman, C.P.M.**

Reichhold

**Jerry Miller, CPSM, CPSP**

Capital One Services

**Tom Mulherin**

JDA Software Group

**Brian Schulties, C.P.M.**

Prysmian Group

**Joel Sutherland**

University of San Diego

**Meghan Truchan, CPSM**

Bain Capital

**Ron Wilson, CPSM, C.P.M.**

Wilbur Curtis Company

**Dave Wood**

Coca-Cola



By Jim Barnes

## Improving Job Role Alignment

As the supply management profession evolves, so do the required skills, job titles and roles within organizations. However, as roles are modified or newly created, the required skills may not be clearly understood. And positions and titles may not be representative of what the roles truly entail — leading to a misalignment.

Every organization experiences differing degrees of job-role misalignment, and for many, determining appropriate job titles and roles and corresponding skills can be overwhelming. At ISM Services, part of what we do is help companies sort out their job classifications and accompanying skills. It's an involved undertaking: To ascertain a company's appropriate job titles and roles, we look at its current

ones, identifying key words that describe each role. We also interview employees in those roles to learn their responsibilities. Then we reorganize their roles to make a more efficient structure.

The process also involves matching roles with competencies, because each role in an organization requires particular skill levels. For example, a category manager role requires proficient business acumen skills and advanced skills in price/cost and TCO areas. To determine competencies by role, we use the ISM Mastery Model®, which has 16 core competencies and 69 sub-competencies.

Once skill sets/needs have been determined, we can create expectations for each role, develop individual growth plans and access training needs at the individual and

corporate level. We can also use diagnostics to identify competency gaps within a corporation's staff: We might conduct the ISM Mastery Model Assessment, then create a roadmap for a course of action. For example, strategic sourcing training or negotiation training might be needed.

While not every organization needs to reorganize job titles and roles, this is becoming a growing area of interest for many as they strive to keep up with supply management trends. And as the industry continues to evolve, job titles, roles and corresponding skills are even more likely to change and need revamping. **ISM**

---

**Jim Barnes** is ISM Services managing director at Institute for Supply Management®.



ISM® Board of  
**Directors**

**Chair**

**Hans Melotte**

Starbucks Corporation

**Kimberly A. Brown**

**George Chang**

GE Aviation

**Norbert Dean, CPSM**

SeaWorld Parks and  
Entertainment

**Thomas W. Derry**

ISM®

**Todd Fister**

Owens Corning

**Beverly Gaskin, CPSM**

General Motors Company

**Nik Hiremath**

**Christopher J. Ledger**

Palo Alto Networks

**Maria Lindenberg**

Chevron Corporation

**Ann Oka**

**Kristopher Pinnow**

B/E Aerospace

**Chae-Ung Um, CPSM, C.P.M.**

LG Electronics



# Just in Time

news, notes & quotes — just when you need them



## How to Keep Employees Motivated Across Generations

Employers must manage — and motivate — four different generations in the workplace, from baby boomers to millennials. The *Staples Business Advantage Workplace Index* surveyed workers young and old to determine which generation is most motivated by a sense of purpose with work, and the result was somewhat surprising.

The poll of 3,105 employees in the U.S. and Canada found that baby boomers (46 percent) and Generation X (32 percent) were most motivated by purposeful work. Just 24 percent of millennials indicated this, which runs counter to multiple studies showing they generally desire to do difference-making work.

Perhaps more important to employers, 50 percent of millennials and 47 percent of Generation X members indicated that burnout is motivating them to look for another job. As a result, the *Index* authors conclude that what employers need to create is an environment workers feel comfortable in.

A wellness program is a winning workplace asset, as 70 percent of millennials, 62 percent of Generation X and 51 percent of boomers said the availability of one is a key selling point when seeking a new job. An ideal wellness program, according to survey respondents, includes ergonomic furniture, fresh food and an on-site gymnasium.

"It's promising that all generations said they think working in a (multigenerational) workplace is more fun, creative, inspiring (and) trusting, and fosters an environment of learning," says Jacob Morgan, best-selling author of *The Future of Work*. "Managing (many) generations poses a challenge for employers, and as Gen Z continues to enter the workplace in larger numbers, it's critical for organizations to ensure they understand their workforce's needs."

Among other findings, 51 percent of millennials and 44 percent of Generation X say office design is important. Millennials are particularly interested in standing desks and lounge areas. While boomers and Generation X generally prefer enclosed offices or cubicles, millennials prefer open floor plans.

Boomers and Generation X typically feel most inspired at their desks in a traditional workplace, while millennials like the ability to work from home.

---

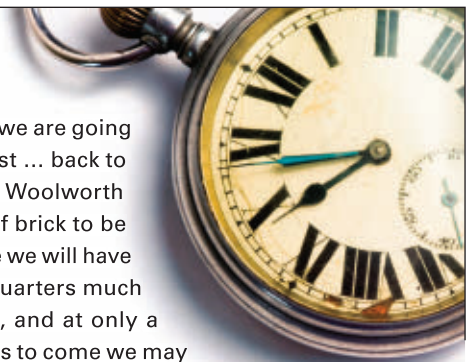
"You can spot a world-class organization a mile away. Its people are happy and attentive, their surroundings are well kept, and everyone cares about what they're doing. At its head, you'll normally find a humble and gracious leader. It almost never fails to be the case."

**Paul McGillicuddy**  
Retired Major General,  
U.S. Air Force

---

## A Moment in Time

**T**he President's Corner: Well, fellows, we are going to move the national office on May 1st ... back to Park Place, across the street from the Woolworth Building into a newly erected huge stack of brick to be known as the "Park-Murray Building," where we will have the equivalent of another room in space, quarters much better arranged for our expanding needs, and at only a moderately slight increase in rental. In years to come we may need a building of our own, so great will become our activities and prestige! Quien sabe? — **Kirke H. Taylor**, NAPA president, *Purchasor*, April 1927.



## Owners Joining Push to Make Buildings Healthier

The push toward healthier buildings — those that prioritize the physical, mental and social well-being of occupants — is gaining steam in business, according to a report by Dodge Data & Analytics, in partnership with Delos.

*The Drive Toward Healthier Buildings 2016* indicates that designers and architects have been leading the construction industry toward healthier features. But the report also found that building owners are starting to recognize their bottom-line benefits.

Better lighting/daylighting exposure, thermal comfort, space for social interaction, better air quality and enhanced acoustical comfort are among the healthier building features that are expected to become blueprint and construction standards.

“This report illustrates how the design and construction industry is helping to drive efforts to introduce preventative medical intentions into our built environment, where we spend more than 90 percent of our time,” says Paul Scialla, Delos founder and CEO. “By focusing on people in design, construction, operations and development decisions, we have an unprecedented opportunity to drive innovation, add significant economic value to real estate assets, generate savings in personnel costs and enhance the human experience.”

Among the report’s other findings:

- Among property owners who reported an impact from healthier building investments, 62 percent report higher values.
- Sixty-nine percent of owners that measure employee satisfaction and engagement report improvements due to their healthier building investments.
- According to public health professionals, the most common policy currently in place to support healthier building practices is requirements to avoid the use of hazardous materials in buildings (65 percent).
- Ninety-two percent of public health professionals also report that their institutions are actively conducting research on building impacts on occupant health and well-being.

---

## Rate of Women in Supply Management Leadership Drops as Ladder Rises

Gartner’s *Women in Supply Chain Survey* found that the profession is similar to many others — the percentage of women in leadership positions decreases the higher you go on the corporate ladder.

On average, 35 percent of respondents’ total supply management workforce is made up of women. The percentage falls steadily for senior managers and directors (26 percent), vice presidents (20 percent) and executive or senior VPs (7 percent). Women progress better in the consumer sector, with 24 percent making up the senior director and VP levels, versus the health care (18 percent) and industrial (11 percent) sectors.

Fewer than half of respondents indicated that their companies have a goal of attracting and advancing women into supply management leadership roles.

The survey — which Gartner conducted in partnership with AWESOME, a U.S.-based networking group focused on advancing women in supply management leadership — included 125 professionals in 112 unique enterprises.

Gartner recommends that companies set specific, articulated and targeted goals to (1) more aggressively recruit women for entry-level supply management positions and (2) create infrastructure to support their advancement up the corporate ladder. **ISM**

## Comm *Oddities* Steel – Hot Rolled

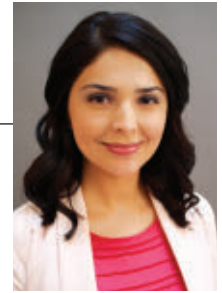
**Take the temperature:** Steel suppliers report that many customers are not aware of the specific differences between hot- and cold-rolled steel. Knowing which type of steel is ideal for a project can help designers and builders get the best results — and procurement professionals get the best price.

**Where does it come from?** Hot-rolled steel is heated at more than 1,700 degrees, enabling it to be easily shaped, formed and made in larger sizes. As it cools, however, the steel shrinks slightly, providing less control of the dimensions of the finished product.

**What’s it used for?** Though it is not as strong as its cold cousin, hot-rolled steel is popular in the construction trade because precise shaping and appearance are not major concerns. Structure beams and railroad tracks are among the most common uses.

**And that’s a fact:** The U.S. Department of Commerce in September placed tariffs of up to 34.3 percent for five years on hot-rolled steel products from Australia, Brazil, Japan, Korea, the Netherlands, Turkey and the United Kingdom. The department determined imports from those countries were sold at less-than-fair market prices.





**Katherine Radtke, CPSM, CPSD, CPCM**  
Director of Purchasing  
Buffalo Wild Wings  
Minneapolis



**A book that has made an impact on my career:**

I enjoyed reading *Every Good Endeavor* by Timothy Keller. It's a very practical book about how to combine your professional and personal life, and be successful at both. These two things are not mutually exclusive. The perspective of seeing your work as a way to serve others and not solely as serving your own interests helped me understand that through our jobs, we have the chance to make contributions that are bigger than ourselves.

## Q: What are some best practices for SRM across numerous countries and regions?

**B**uffalo Wild Wings is a global brand. Almost 35 years after the company's creation, we continue to open restaurants in the U.S., and in recent years, we've had openings in Canada, Mexico, the Philippines, the United Arab Emirates, Kingdom of Saudi Arabia and Panama.

We're an international business with many moving pieces, although sometimes they move in the opposite direction. As a supply management professional, my job is to make sure we are orchestrating the systems, processes and data applicable to every country while simultaneously providing customizations tailored to the region.

When developing a strong supply chain structure in different countries, your success depends on strong relationships with your suppliers. The first challenge is that most of your interactions are virtual, not in-person. Given that fact, here are some best practices our team has used to enable successful supplier relationship management.

**Familiarize yourself with the country's culture and business practices.** It's imperative that every team member interacting with international suppliers is aware of norms that are particular to a region.

By being proactive, you can calibrate your expectations and awareness of the differences from your own culture. For example, punctuality can be highly valued or completely ignored, depending on the culture. Or in the food industry, if you're working with a Middle Eastern country, perhaps the first thing you should learn about is halal food.

**Leverage local knowledge.** Although your company has a process to select suppliers, it helps to reach out to your embassy or consulate, local chambers of commerce or regional professional groups when identifying international suppliers. These sources may point you in the right direction to help save time in narrowing down the list of prospects.

**Spend quality time with your supplier.** While there is always pressure to stay within travel budgets, consider spending more quality time with your supplier during your visit. You may not get the chance to meet face-to-face often, so try to find ways to build trust beyond the standard business meeting or plant visit. For example, an outside activity or walk around the town will give you a chance to connect at a personal level. It shows your interest in learning about their lives and their country. This demonstrates that you genuinely want to build a relationship.







### Three phrases I find myself saying nearly every day at my job:

*What is the motivation behind this request?*

*How is this going to affect the (company/team/me) now and in 3-5 years?*

*How will this idea deliver the ultimate social experience to our guests?*



### **A supply chain concern that keeps me up at night:**

Are we building the right supply chain systems and team to meet the needs and future plans of a growing organization? From the systems perspective, we need to make sure we have the right tools to give purpose to the data “floating around.” The right data at the right time will likely give us a better scenario than if we go in blind to make a decision. From the people perspective, with our workforce being multigenerational, it is vital that we keep the right mix in the team to innovate and challenge the way we do things.

### **When people ask what I do for a living, here’s how I describe my job in one sentence:**

I’m part of the team that makes our guests around the world happy by making sure all of our restaurants always have the food and beverages guests crave.

---

### **The most helpful career advice I’ve received:**

When I decided to study business, my dad told me the key to being successful in the business world is not measured by the knowledge you put in your head, but by how quickly you can understand people and adapt to work with them. The older I get, the more I realize it all comes down to having good working relationships with everyone — acquiring knowledge along the way is a plus.

---

### **The biggest professional challenge I’ve had to overcome:**

Implementing an ERP system for multiple product lines in six months has been my biggest challenge so far. I was new to the company and spent many hours with the team learning about the new system, then visited a sister plant to see the system live. My team and I were expected to learn it and return to our site to lead its implementation. It was a hectic time, but a great opportunity to challenge the way the system was configured and find ways to improve it for our plant. We had a plan and stuck to it, and we hit our deadline. Looking back, it was a great team effort. **ISM**

# Mastery Matters

leverage your knowledge, optimize your strengths

By Rene G. Rendon, CPSM, CPSD, C.P.M., and  
Henry F. Garcia, CPSM, C.P.M., A.P.P.



ISM Mastery Model®

Competency: **Project Management**

## The Demands of Dual Disciplines

In today's business climate, effective supply management requires maximizing the interface with project management.

**T**oday's business environment can be characterized by a growing demand for complex and customized goods and services along with an increased reliance on suppliers for performance of mission/market-critical functions. The increased complexity of goods and services requires the need for enhanced skills and an improved procurement approach — one rooted in project management.

Institute for Supply Management® defines project management as the process of coordinating, organizing, planning, scheduling, controlling, monitoring and evaluating activities so that the objectives of a project are met.

We can think of the supply management/project management interface in two different perspectives. First, supply management may be part of a larger project that also involves non-supply management activities. Second, some

supply management activities may themselves be considered projects. The reality of today's business environment is that supply management practitioners must be competent in supply management and project management. Competence in project management requires understanding and mastering the critical areas of managing projects.

### Take the Project Management Plunge

Project management experience will continue to be increasingly valuable as organizations adopt an approach to managing supply-related activities. Supply management practitioners should seek opportunities to learn and master project management principles. There are a number of areas to gain experience.

First, become a member of a cross-functional project team where you can lead responsibilities

related to performing supply-related activities such as procurement planning, source selection and contract administration. Depending on the criticality of the supply management support for that project, your role and responsibility may be of utmost importance. For example, the award of the contract may be a critical activity on the project's path — the sequence of project network activities. Consider, for example, the contract award time frame. Any delay in the awarding of the contract has a ripple effect on the project completion date. If there's a go-to-market strategy, this could be detrimental for the company.

As you gain more experience in supporting projects, expand your role to project manager. In this role, you would lead a project team consisting of representatives from each of the functional areas associated with the project's activities. The project manager is responsible for coordinating the various functional activities to ensure the project meets the desired cost, schedule and performance objectives.

Transitioning to project manager requires a deeper

understanding of project management. Understanding the “triple constraint” in project management can lead to better decision-making during projects.

### The Triple Constraint

All organizations are comprised of systems and subsystems. Because project management integrates these systems into projects (single endeavors) or programs (group of endeavors), it is necessary to take a holistic approach to project decision-making. This holistic view considers an expansion of a basic project management tenet known as the triple constraint associated with projects or programs.

Every project is constrained by three factors: cost, scope and schedule. The cost of the project reflects the agreed budget of the deliverables or services, the scope is the documented description of the project work, and the schedule reflects the timeline for completing the project activities. The project manager and project team are responsible for managing these constraints and completing the project scope within budget and on schedule. Depending on the type of project, there may be many opportunities for the supply management professional to support the project objectives.

**Scope of work.** To execute on a project, you must first define the project scope of work. The project scope of work refers to the purpose, major milestones and expected outcome of a project. For projects involving supplier participation, the functional outcome of a supplied good or service is imperative. In addition, the associated tasks/subtasks (or work packages) are documented.

This is where supply management brings value in a project team — suggesting how its procurement/contracting expertise and suppliers can support the development and execution of the scope of work.

For example, in supporting the development of the project scope, the project team should leverage (1) the supply management practitioner’s knowledge of the supply base and (2) the expertise of suppliers. Additionally, knowledge of sourcing strategies for various contract-types can ensure the supplier structure (prime contractor, subcontractor and lower-tiered contractors) is appropriately arranged for performing project activities. This is most useful in the identification, evaluation, selection, utilization and disposition of a major piece of capital equipment like complex client-server installations.

**Scheduling.** Time is integral to all projects. The management of a schedule involves the classification of activities, establishment of priorities, identification of opportunity costs and integration of systems/subsystems in an effort to ensure that a project is accomplished in a timely manner.

A project scope’s work breakdown structure may reflect a number of subcomponents or subsystems that will be integrated together into the final deliverable system. Expertise in contract incentive structure and risk management will be needed to ensure the project activities are performed to meet the project schedule requirements.

**Cost management.** Cost-related activities represent a significant part of a project. These activities are concerned with the cost of resources applied to a project. Moreover, these

activities are related to the application of cost analysis, value analysis/value engineering and the TCO associated with the development of a good or service. For some projects, cost considerations may include fiscally-related analytical tools such as return on investment, internal rate of return, discounted cash flow and payback analysis. Supply management can provide input to the budgeting and cost analysis activities related to specific projects.

For example, in supporting the development of a project budget, supply management practitioners can leverage expertise in multitiered costing methods, should-cost and target-cost strategies, and TCO analysis. Competencies in cost and price management will add discipline in the development of a project budget. Supply management professionals have many opportunities to leverage their mastered competencies in a project management environment.

Supply management and project management competencies both evolve as you grow and mature in the profession. As competencies increase, so do the opportunities for project management experience. Having exceptional supply management competence is a prerequisite to being effective in project management. Put yourself in the position to contribute to and, ultimately, lead projects for your organization. **ISM**

---

**Rene G. Rendon, CPSM, CPSD, C.P.M.**, is an associate professor teaching acquisition and contract management at the U.S. Naval Postgraduate School in Monterey, California. **Henry F. Garcia, CPSM, C.P.M., A.P.P.**, is founder of Asentrene, Inc., a San Antonio-based consulting and training firm specializing in project management, supply management and operations management.



**E**conomic activity in the **manufacturing sector** expanded in October, and the overall economy grew for the 89th consecutive month, say the nation's supply executives in the latest **Manufacturing ISM® Report On Business®**.

The October PMI® registered 51.9 percent. The New Orders Index registered 52.1 percent, a decrease of 3 percentage points from the September reading of 55.1 percent. The Production Index registered 54.6 percent, 1.8 percentage points higher than the September reading of 52.8 percent. The Employment Index registered 52.9 percent, an increase of 3.2 percentage points from the September reading of 49.7 percent. Inventories of raw materials registered 47.5 percent, a decrease of 2 percentage points from the September reading of 49.5 percent. The Prices Index registered 54.5 percent in October, an increase of 1.5 percentage points from the September reading of 53 percent, indicating higher raw materials prices for the eighth consecutive month.

Comments from the panel are largely positive, citing a favorable economy and steady sales, with some exceptions. Of the 18 manufacturing industries, 10 are reporting growth in October in the following order: Textile Mills; Miscellaneous Manufacturing‡; Food, Beverage & Tobacco Products; Nonmetallic Mineral Products; Computer & Electronic Products; Furniture & Related Products; Paper Products; Printing & Related Support Activities; Petroleum & Coal Products; and Chemical Products. **ISM**

‡Miscellaneous Manufacturing (products such as medical equipment and supplies, jewelry, sporting goods, toys and office supplies).

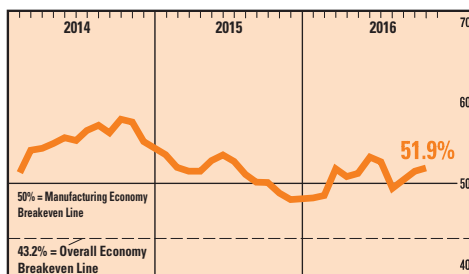
## PMI® at 51.9%

New Orders, Production and Employment Growing; Inventories Contracting; Supplier Deliveries Slowing

### Manufacturing at a Glance

| INDEX                       | Oct Index | Sep Index | % Point Change | Direction      | Rate of Change   | Trend* (months) |
|-----------------------------|-----------|-----------|----------------|----------------|------------------|-----------------|
| PMI®                        | 51.9      | 51.5      | +0.4           | Growing        | Faster           | 2               |
| New Orders                  | 52.1      | 55.1      | -3.0           | Growing        | Slower           | 2               |
| Production                  | 54.6      | 52.8      | +1.8           | Growing        | Faster           | 2               |
| Employment                  | 52.9      | 49.7      | +3.2           | Growing        | From Contracting | 1               |
| Supplier Deliveries         | 52.2      | 50.3      | +1.9           | Slowing        | Faster           | 6               |
| Inventories                 | 47.5      | 49.5      | -2.0           | Contracting    | Faster           | 16              |
| Customers' Inventories      | 49.5      | 53.0      | -3.5           | Too Low        | From Too High    | 1               |
| Prices                      | 54.5      | 53.0      | +1.5           | Increasing     | Faster           | 8               |
| Backlog of Orders           | 45.5      | 49.5      | -4.0           | Contracting    | Faster           | 4               |
| New Export Orders           | 52.5      | 52.0      | +0.5           | Growing        | Faster           | 8               |
| Imports                     | 52.0      | 49.0      | +3.0           | Growing        | From Contracting | 1               |
| <b>Overall Economy</b>      |           |           |                | <b>Growing</b> | <b>Faster</b>    | <b>89</b>       |
| <b>Manufacturing Sector</b> |           |           |                | <b>Growing</b> | <b>Faster</b>    | <b>2</b>        |

\*Number of months moving in current direction.  
Manufacturing ISM® Report On Business® data is seasonally adjusted for the New Orders, Production, Employment and Supplier Deliveries Indexes.



## PMI®

Manufacturing expanded in October as the PMI® registered 51.9 percent, an increase of 0.4 percentage point from the September reading of 51.5 percent, indicating growth in manufacturing for the second consecutive month. A reading above 50 percent indicates that the manufacturing economy is generally

expanding; below 50 percent indicates that it is generally contracting.



### Commodities Reported

**Commodities Up in Price:** Corn; Corrugate; Diesel; HDPE (2); Methanol; Nickel; Petroleum (2); Plastic Resins (3); Polyethylene (2); Polypropylene (2); Propylene (3); Stainless Steel\* (7); and Steel\* (10).

**Commodities Down in Price:** Aluminum; Carbon Steel; Copper (2); Scrap Steel (3); Stainless Steel\*; Steel\* (4); Steel – Cold Rolled (3); and Steel – Hot Rolled (3).

**Commodities in Short Supply:** None.

Note: The number of consecutive months the commodity is listed is indicated after each item.

\*Reported as both up and down in price.

Analysis by **Anthony Nieves, CPSM, C.P.M., A.P.P., CFPM**,  
 chair of the Institute for Supply Management®  
 Non-Manufacturing Business Survey Committee.

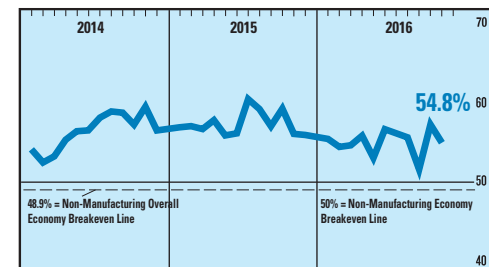
## NMI® at 54.8%

Business Activity Index at 57.7%; New Orders Index at 57.7%; Employment Index at 53.1%

### Non-Manufacturing at a Glance

| INDEX                           | Oct Index | Sep Index | % Point Change | Direction      | Rate of Change | Trend* (months) |
|---------------------------------|-----------|-----------|----------------|----------------|----------------|-----------------|
| NMI®                            | 54.8      | 57.1      | -2.3           | Growing        | Slower         | 81              |
| Business Activity               | 57.7      | 60.3      | -2.6           | Growing        | Slower         | 87              |
| New Orders                      | 57.7      | 60.0      | -2.3           | Growing        | Slower         | 87              |
| Employment                      | 53.1      | 57.2      | -4.1           | Growing        | Slower         | 5               |
| Supplier Deliveries             | 50.5      | 51.0      | -0.5           | Slowing        | Slower         | 10              |
| Inventories                     | 52.0      | 51.5      | +0.5           | Growing        | Faster         | 2               |
| Prices                          | 56.6      | 54.0      | +2.6           | Increasing     | Faster         | 7               |
| Backlog of Orders               | 52.0      | 52.0      | 0.0            | Growing        | Same           | 2               |
| New Export Orders               | 55.5      | 56.5      | -1.0           | Growing        | Slower         | 2               |
| Imports                         | 53.0      | 51.0      | +2.0           | Growing        | Faster         | 9               |
| Inventory Sentiment             | 62.0      | 64.5      | -2.5           | Too High       | Slower         | 233             |
| <b>Overall Economy</b>          |           |           |                | <b>Growing</b> | <b>Slower</b>  | <b>87</b>       |
| <b>Non-Manufacturing Sector</b> |           |           |                | <b>Growing</b> | <b>Slower</b>  | <b>81</b>       |

\*Number of months moving in current direction.  
 Non-Manufacturing ISM® Report On Business® data is seasonally adjusted for the Business Activity, New Orders, Prices and Employment Indexes.



## NMI®

In October, the NMI® registered 54.8 percent, a decrease of 2.3 percentage points when compared to the September reading of 57.1 percent, indicating continued growth in the non-manufacturing sector for the 81st consecutive month. A reading above 50 percent indicates the non-manufacturing sector

economy is generally expanding; below 50 percent indicates the non-manufacturing sector is generally contracting.



**Note:** The number of consecutive months the commodity is listed is indicated after each item.

\*Reported as both up and down in price.

### Commodities Reported

**Commodities Up in Price:** Beef\*; Copper; Dairy (4); #1 Diesel Fuel (2); #2 Diesel Fuel (5); Envelopes; Gasoline; Labor; Labor – Construction; and Paper (2).

**Commodities Down in Price:** Beef\* (3); Cheese; DDGS; Pork; Poultry; and Steel Products.

**Commodities in Short Supply:** Avocados; Labor (13); Labor – Construction (7); Labor – Temporary (2); and Shingles (2).

**E**conomic activity in the non-manufacturing sector grew in October for the 81st consecutive month, say the nation’s purchasing and supply executives in the latest **Non-Manufacturing ISM® Report On Business®**.

The NMI® registered 54.8 percent. The Non-Manufacturing Business Activity Index decreased to 57.7 percent, 2.6 percentage points lower than the September reading of 60.3 percent, reflecting growth for the 87th consecutive month, at a slower rate in October. The New Orders Index registered 57.7 percent, 2.3 percentage points lower than the reading of 60 percent in September. The Employment Index decreased 4.1 percentage points in October to 53.1 percent from the September reading of 57.2 percent. There has been a slight cooling off in the non-manufacturing sector month-over-month, indicating that last month’s increases weren’t sustainable. Respondents’ comments remain mostly positive about business conditions and the overall economy. Several comments were made about the uncertainty on the impact of the upcoming U.S. presidential election. The 13 non-manufacturing industries reporting growth in October — listed in order — are: Transportation & Warehousing; Construction; Other Services\*; Management of Companies & Support Services; Information; Professional, Scientific & Technical Services; Real Estate, Rental & Leasing; Wholesale Trade; Utilities; Finance & Insurance; Retail Trade; Accommodation & Food Services; and Health Care & Social Assistance. **ISM**

\*Other Services (services such as Equipment & Machinery Repairing; Promoting or Administering Religious Activities; Grantmaking; Advocacy; and Providing Dry-Cleaning & Laundry Services, Personal Care Services, Death Care Services, Pet Care Services, Photofinishing Services, Temporary Parking Services and Dating Services).

# Global Trends

news in a changing world



---

## Resources

- Information in this report was gathered from the following sources:

[Airlines Reporting Corporation](http://www.arccorp.com)  
www.arccorp.com

[Research and Markets](http://www.researchandmarkets.com)  
www.researchandmarkets.com

[Transparency Market Research](http://www.transparencymarketresearch.com)  
www.transparencymarketresearch.com

---

## US United States

Air ticket sales by U.S. travel agencies increased slightly in August but were down 8 percent during the first eight months of the year as compared to 2015, according to research by Airlines Reporting Corporation, an air-travel intelligence and commerce tracker for the travel industry. August ticket sales totaled US\$7.8 billion, up 1.8 percent over the same month last year, and the 14 million airline ticket transactions for the month were up 8.4 percent from August 2015. However, the consolidated dollar value of airline tickets sold by U.S. agencies in the first eight months of 2016 was \$59.9 billion, down from \$62.4 billion in the same time frame a year ago. The results are based on sales data from 12,798 U.S. retail and corporate travel agency locations, satellite ticket printing offices and online travel agencies.

## AR Argentina

Argentina is projected to emerge as one of Latin America's most lucrative pharmaceutical products and contract manufacturing organization (CMO) markets by 2024, according to a report by Transparency Market Research. The country's pharmaceutical/CMO market is expected to grow at a compound annual rate of 11.6 percent — growth that is expected to be typical for the region. Latin America's market was worth US\$127.9 billion last year and is expected to reach \$286.2 billion by 2024. The report says that an open business environment and swift drug approvals in Latin American countries have attracted pharmaceutical companies and drug makers to the region.

## JP Japan

Japan and other Asia-Pacific countries are expected to fuel a global liquid fertilizers market that is expected to grow by a compound annual rate of 3.1 percent and reach US\$13.5 billion by 2021, according to a report by Research and Markets. Growing demand for fertilizers that are more efficient and easier to use, adoption of precision farming and protected agriculture, and increasing environmental concerns are the key drivers of the growth, the report says. The cereals and grains segment accounted for the largest share of the global liquid fertilizers market last year. However, the fruits and vegetables segment is expected to have the highest growth rate by 2021, as demand has forced growers — particularly those in Japan — to produce more crops in a limited amount of arable land.



# Stand-Up Pouches Leading Packaging Trends

**S**teady demand for lower-cost, durable space-saving containers has compelled the consumer packaged goods (CPG) industry to devise newer, more innovative products capable of enhancing brand vitality while boosting customer appeal. Among the packaging concepts exhibiting the strongest growth are flexible, stand-up pouches.

These pouches weigh up to 95 percent less than rigid containers and can reduce product footprint by about 10 percent. Thus, they not only reduce transportation and packaging-material costs, but allow brands to stock more product within the same shelf space.

According to L.E.K. Consulting's research, the U.S. market for stand-up pouches — currently estimated at US\$1.2 billion to \$1.3 billion — is expected to achieve upper-single-digit annual growth through 2020. M&A activity in this space remains strong, as both private equity sponsors and corporate buyers add these attractive, high-margin products to their portfolios. A relatively fragmented supplier base points to ongoing consolidation opportunities down the road.

## Stand-Up Success

In the U.S., stand-up pouches have been mainly relegated to single-serving food and beverage products, and until recently have been slow to gain traction, unlike in Europe and other markets. Advances in barrier, lamination and fitment technologies, however, have since led to improved shelf stability, allowing brand owners to offer pouches in a variety of sizes, shapes and closures, with the ability to hold heavier contents as well.

Products run the gamut from traditional stand-up pouches with fitments to sterilized retort and aseptic offerings. Projected growth differs for each type, ranging from a 17 percent compound annual growth rate (CAGR) for traditional pouches with fitments to 70 percent to 85 percent CAGR for various aseptic designs.

The versatile stand-up pouch has been particularly attractive for companies seeking product differentiation in an increasingly crowded marketplace. In 2014, Stonyfield, an organic yogurt maker, pioneered a line of stand-up pouch yogurts for the youth market (featuring such products as YoBaby, YoTot and YoKids). The ability to attract specific consumer groups (millennials included) using innovative packaging has also resonated with Chobani, Dole and Ocean Spray, which have increased stand-up pouch adoption.

The appeal of these pouches is more than looks. For example, retort pouches are comprised of high-barrier, multi-layered film, which helps protect food from moisture and offers consumers the convenience of heating the product within the bag. Not surprisingly, retort pouches are outpacing growth in the overall pouch market.

In addition, increased demand for shelf-stable packaging,

particularly in the retorted-food category, is expected to keep aseptic packaging on the fast track. Stand-up pouches with fitments (such as spouts and handles) and substrates (with increased usage of pouches for high-end and organic products) are also expected to have a healthy growth trajectory going forward.

Shelf-stable packaging also is in demand in the North American pet food market, which has seen an increase in flexible packaging fueled by an ongoing pet "humanization" trend. Cheaper to produce than standard cardboard packaging, pet food pouch containers are attractive to brand owners, who like the more efficient, resealable closures. The market for flexible-packaged pet foods is expected to achieve 5 percent yearly volume growth over the next five years, according to L.E.K. research. Median EBITDA margins for converters are likely to reach a range of 15 percent to 20 percent during that period, with margins appearing strongest among subcategories such as nutritional treats.

## Challenges to Adoption

Despite the demand, current filling limitations could put a damper on certain categories, aseptic packaging included. The need for specialized pouch manufacturing equipment also may serve as a barrier to entry for some participants.

Additionally, the pouch supplier market is characterized by a handful of larger players that offer a suite of packaging options, along with various midsized and smaller pure play companies that primarily specialize in one or two pouch capabilities. As such, CPGs will likely require additional suppliers with sufficient enough scale to offer innovative pouch designs across a variety of product segments and end markets.

Nevertheless, the need for durable, distinctive packaging will continue to gain traction, as manufacturers seek concepts that not only accentuate product features but help promote freshness while extending shelf life. Accordingly, the low-cost, high-value, stand-up pouch represents one of the most compelling segments within the packaging sector as a whole, thanks to its ability to offer product differentiation while improving longevity.

Going forward, these attributes are likely to create a wealth of opportunity for pouch suppliers that create products that can meet the needs of both consumers and brand owners, with consistent demand leading to potentially lucrative growth and/or acquisition targets for well-placed investors. **ISM**

---

**Thilo Henkes** and **Carol Wingard** are managing directors and partners, and **Jeff Cloetingh** is engagement manager at L.E.K. Consulting in Boston.

November | December  
**COVER STORY**

By Sue Doerfler





## Six megatrends are reshaping the supply chain of today and tomorrow.

**S**ix megatrends are transforming the traditional ways supply chains function and how they will operate in the future. Three of the trends — agility, the talent shortage and becoming an organization’s trusted advisor — aren’t new. They’ve been hot topics among supply managers for years and will continue to persist, experts say. Three additional trends — supply managers as solutions architects, procurement leading innovation and the technological supply chain — are new paradigms that are evolving.

The six trends are interconnected: Their common denominator is change. Each trend has the potential to be disruptive as well as transformative, revolutionizing how supply professionals interact with suppliers and customers, shaping strategies, offering opportunities and affecting the bottom line.

### Trends in the Traditional Sense

These three enduring trends will continue to affect supply managers into the future:

**Agility.** Agility can be defined in many ways — speed, responsiveness, predictability, thinking outside the box. No matter how it is interpreted, being agile is becoming increasingly important to supply managers as they react to landscape changes, says Chris Sawchuk, principal and global procurement advisory practice leader at The Hackett Group in Miami.

Speed is key: Supply managers need to react quickly to the ever-changing needs of the business, he says. “They can’t just think about how to save money and ensure supply,” he says. “They have to think about how to react quickly and appropriately, but at the same time, how to be more predictive about what might happen in the future.”

The Internet of Things, for example, is going to impact the supply chain in ways still yet to be determined. It will not only enable organizations to connect internally and with their suppliers but also with other trade partners and the end customer, says Sawchuk. One result will be full transparency across the entire value network, he says. Supply managers will have real-time information about demand as well as the drivers of that demand to allow for significantly improved demand forecasting accuracy, he says.

In addition to having speed, supply managers need to become increasingly customer-centric. “Everything is being driven by the consumer,” says Sean Monahan, partner and leader of A.T. Kearney’s Chicago-based Americas Strategic Operations Practice. “Even if I’m in a B2B environment, people are expecting the same things they see as a consumer: anything, anytime, anywhere.” For example, consumers want customization: They — as well as suppliers and partners — want products and experiences that are personalized to them, thus requiring supply managers to be agile and responsive, he says.

This newfound agility can create new opportunities for supply managers, says Joe Cavinato, Ph.D., CPSM, C.P.M., professor of supply chain management at Thunderbird School of Global Management in Glendale, Arizona. In addition to personalized products and relationships, the possibilities include diversification, adoption of new technologies and establishment of strategic partnerships with



suppliers and other organizations.

**Talent shortage.** Unlike agility with its growth potential, the talent shortage presents more of a dilemma going forward for the supply management profession. There is a diminishing senior leadership labor pool as baby boomers reach retirement. Conjointly, a new talent shortage predicament is emerging as the profession becomes more technological: the need for workers with new skill sets.

"We have clients in the transportation field who say they can't find diesel mechanics because they're all retiring," Monahan says. "On the other hand, workers with skill sets in new technologies — analytics, data science, Internet of Things or additive manufacturing — are in short supply as well. Thus, organizations are losing the traditional skills required to do the basics while also fighting to acquire new skills that are increasingly in demand."

Monahan expects that as new technologies become the norm and as standards emerge, these skill sets will become more available. "However, another big issue we see is that these technologies are going to require that people change skills on a much faster basis," he says. "No longer will you go to college, get a degree and be done with training until you retire. People are going to have to train and retrain, and our education system needs to adapt to that." Organizations also must adapt.

One way to help bridge the talent gap and focus on needed skills is partnering with local universities to develop talent programs, including courses, certifications and internship programs, says Sarah Scudder, chief growth officer at The Sourcing Group in New York. She adds that organizations can prepare for the talent shortage created by retiring personnel by:

- Setting up mentoring and buddy programs for knowledge transfer
- Cross-training directors and other key managers so they get additional

experience

- Providing training programs so skills aren't lost.

**Trusted advisor.** This trend, like the two previous ones, has been challenging procurement professionals for years. "It's not a title that procurement gives itself," Sawchuk says. "It is bestowed upon procurement by stakeholders."

Often, supply managers have strong relationships with only some of the businesses of an organization. But often, they don't permeate across the organization, Sawchuk says. Also at issue is the fact that relationships can stagnate. Thus, supply managers have to continually evaluate and reshape their value proposition to the organization to better enable success and to create competitive differentiation, Sawchuk says.

He sees progress in this area, with supply managers working to enhance their value by improving their execution of more traditional sourcing activities. They also are leveraging their access to and knowledge of suppliers' broader capabilities, thus enabling internal business processes such as new product innovation and M&A, he says. "Through this, we're going to see supply management continue to become more of a trusted advisor within the organization," he says.

## Evolving Trends

Three evolving trends impacting supply management are:

**Solutions architects.** In addition to being sought-out advisors, supply managers also should consider themselves solutions architects. This emerging trend involves incorporating new ways of doing traditional processes — or thinking outside the box, Sawchuk says. By rethinking or re-architecting how they execute activities across the organization, supply managers can increase their value to that organization.

For example, instead of entering

into traditional preferred supplier agreements, Sawchuk says, supply managers need to ask if there is a better way of buying needed components or products. "When we look at managing spend across an organization, the question is: How would we architect it if we were to start from scratch while taking into consideration the many options available to us in today's world?" he asks. "Where might we apply our own resources versus leveraging third parties such as business process outsourcing (BPO) and group purchasing organizations (GPOs)?"

Going forward, spend influence will be redefined, Sawchuk says. The advent of open buying platforms like Amazon Business and Alibaba may cause changes, he says. Supply managers could decide that it's more advantageous and less costly to use one of these platforms for certain tail spend categories than to architect a preferred supplier arrangement and thus reduce spend influence in its traditional sense, he says.

**Innovation.** As with being a solutions architect, being an innovator means coming up with new ways to accomplish things. "Innovation is taking an issue and looking across the company and even outside the company to see how it can be resolved," says Cavinato. "It's a foreign concept to most supply chains: Typically, change is done in a traditional manner, in which supply managers develop a blueprint for success. Innovation goes beyond this."

For example, take any item produced or manufactured by a company. "Instead of concentrating only on the item's cost effectiveness, an innovative supply manager also looks into additional ways to use the product — what else it can do and what else it can create," Cavinato says.

Innovative supply managers are agile, able to respond to change and need, Monahan says. They may use technology in new ways within their organizations, for example, to track



the flow of inventory or to enable new business models, he says. "You need transportation, but that doesn't mean you need to own a car. As an innovator, you find different ways of having that need satisfied," says Monahan.

Cavinato says procurement managers make natural innovators because they have a global view of what their organizations and supply chains are doing. "In the future, we're going to see companies that thrive on having CPOs as overseers of innovation," he says.

**Technology.** Technology is playing an increasingly bigger role in the supply chain. "More and more technology spend is falling under procurement," says Scudder. "Thus, the CPO will be overseeing all different types of technology spend: mobile, digital, web, internal systems and processes for sourcing and procurement, and for buying and reporting."

Technology, which is always changing, will affect the supply chain in myriad ways: supplier relationships, buying practices, manufacturing processes, collaboration efforts, internal communications and more. It's already having an impact now. While many organizations think they have time to wait before jumping on the technology bandwagon, they don't, Monahan says: "The future is here now."

Take 3-D printing, for instance. "It's not just prototypes that someday will be crafted into parts for the supply chain, like many think," says Monahan. "3-D printing can be done in metal, and there are hundreds of aircraft parts, automotive parts and medical devices produced today by 3-D printing."

Social media is another example. The use of social media will become increasingly more important as organizations strive to be more collaborative and transparent, Sawchuk says. "Social

media will grow to become the vehicle by which we collaborate and not just communicate," he says. Email will remain for the foreseeable future, he adds, "but supply managers will leverage social media as well as video platforms to facilitate and enable collaboration and idea sharing across their globally dispersed teams."

At the same time, supply managers will want to investigate how they can use social media to not only improve supplier collaboration, but also to monitor platforms for insights into potential supplier performance issues, says Sawchuk. "Social media chatter can be used as a vehicle to monitor discussions on supplier industries as well as specific supplier performance," he

Social media and 3-D printing are just two technologies that will be game changers for supply managers going forward. Other innovative technologies include nanotechnology, augmented reality, artificial intelligence, predictive analytics, the Internet of Things and cloud-based supply chain network platforms.

When supply managers start applying these tools, they are going to realize correlations not apparent today and bring visibility to indicators, Sawchuk says.

## Managing Change

These six trends are reshaping the supply chain of today and the future, offering both challenges and opportunities alike for supply managers.

---

**"In the future, we're going to see companies that thrive on having CPOs as overseers of innovation."**

— Joe Cavinato, Ph.D., CPSM, C.P.M.,  
Thunderbird School of Global Management

---

says. "You may not have a performance issue yet, but social media chatter could be predictive of issues to come."

At the same time, supply managers will want to investigate how they can use social media to predict various behaviors and future supplier performance, says Sawchuk. "Look at chatter that occurs on social media. Perhaps people are talking about a particular supplier that we're using," he says. "Maybe we don't have performance issues yet with that supplier but we see chatter out there indicating issues to come. What this boils down to is: How do we employ mobility in a much better way?"

To manage the change that is bound to occur and to gain positions as trusted advisors, supply managers need to react with agility, adapt to new skill sets and think of new and better ways to do traditional processes, whether through innovation, technology or as solutions architects.

By doing so, they will be able to better interact with suppliers and customers, shape strategies, enable new business models and processes, bridge the talent gap and compete as the supply chain evolves. **ISM**

---

**Sue Doerfler** is a publications coordinator for *Inside Supply Management*®.



Supply management can mitigate food safety risk by recognizing where potential issues might occur and improving accountability and traceability.

# Safe Handling

By Sue Doerfler

**A** study by New York-based AlixPartners found that 28 percent of consumers said they would never again eat at a restaurant chain that incurred a food safety issue, no matter where it happened.

That significant drop in customers is difficult for any restaurant to weather, says Kurt Schnaubelt, managing partner and co-leader of AlixPartners' food service and restaurant practice, which produced the March study, *Tall Orders: Higher Wages and Menu Changes*, also called *North American Restaurant and Foodservice 2016 Outlook*. "If I'm a restaurateur, food safety becomes a huge issue for me," Schnaubelt says.

Food safety is a critical issue today for restaurant operators as well as other organizations in the perishable goods market. Potential challenges and problems can occur anywhere along the supply chain. To ensure their supply chains are safe, supply managers have to balance accountability, regulatory issues and consumer demand.

## Consumer Sentiment

Shifts in consumers' tastes in food are playing a role in what and how food is sourced, while at the same time acting as a catalyst for potential food safety issues. These shifting consumer food preferences include:

**Fresh ingredients.** Consumers not only want freshness, they want it year-round, causing supply managers to source from around the globe. Some of those locations may not have the best sanitation or hygiene, says Dr. Robert Tauxe, director of the Centers for Disease Control & Prevention's Division of Foodborne, Waterborne and Environmental Diseases at the National Center for Zoonotic Infectious Diseases in Atlanta.

**Fewer preservatives.** In addition to fewer artificial preservatives, consumers want their food to contain less salt and sugar. There also is a trend toward raw food. These preferences disrupt a historical approach — using salt, sugar and cooking — to controlling food safety issues, Tauxe says.

**Locally sourced and quality foods.** It's difficult to have a safe supply chain when buying locally, Schnaubelt says. "It doesn't mean that you can't. It just means you're now dealing with generally smaller companies, not suppliers with strong track records and proven food safety measures," he says.









# Safe Handling

While locally sourced foods have cachet, quality can trump vicinity, the AlixPartners study discovered. “Consumers have said if a restaurant is offering, for example, a tomato from Texas that is high quality and tastes good, they don’t mind that it isn’t local,” says Schnaubelt. He adds that chain restaurants haven’t reached the point where they need to buy all their tomatoes or dairy from local suppliers.

## **Sustainably sourced foods.**

Because it also can be difficult to have a safe, sustainably-sourced supply chain, some companies have invested in sustainable agriculture programs. One is Deerfield, Illinois-based Mondelez International, whose programs include Cocoa Life, which works with cocoa farmers in Ghana, Indonesia, India, Brazil and other countries to improve their skills and knowledge, and thus the long-term stability of the cocoa supply chain. Mondelez International expects to invest US\$400 million by 2022 in the program, which began in 2012. Peter Begg, senior director for global quality at Mondelez International, says, “Our sustainable agriculture programs, such as Cocoa Life, help create a sustainable supply of critical raw materials and ensure their integrity.”

## **Taking Responsibility**

Changing consumers’ tastes aren’t the only shifts affecting supply chain food safety. One of the biggest moves relates to responsibility, Tauxe says.

“Previously, there were attitudes of ‘Let the buyer beware’ and ‘Be sure to cook it properly,’” he says. “Nobody had much responsibility. The shift now is that everyone in the food chain has a responsibility. They are all important partners in food safety.”

Contributing to that changing mind-set is the U.S. Food and Drug Administration’s FDA Food Safety Modernization Act (FSMA), which

was signed into law in January 2011 and has been called “the most sweeping reform of U.S. food safety laws in more than 70 years,” says FDA spokesperson Jason Strachman-Miller. It aims to ensure the U.S. food supply is safe by shifting the focus from responding to contamination to preventing it, he says.

The FSMA empowers the FDA to take swift enforcement action when the agency determines that people are at risk, rather than relying on judicial remedies, says Strachman-Miller. “When a company does not voluntarily cease distribution, the FDA can recall a potentially dangerous food product,” he says. “The enforcement tools provided by the FSMA include mandatory recall, expanded administrative detention authority to detain foods before they enter the marketplace, and suspension of registration to prevent a facility from offering a food for sale.” When a facility has a suspended registration, it can’t import or export food into the U.S. nor distribute it interstate or intrastate.

The FSMA’s seven foundational rules include:

- Forming a farm-to-market continuum of food safety and consumer protection
- Steering food safety systems from a largely reactive posture to one that puts prevention first and foremost

- Assuring the equivalent level of food safety for foods produced inside and outside the country and a level playing field for domestic and foreign producers
- Placing the onus on industry to produce safe food and to verify that systems are in place to accomplish that.

## **Increasing Traceability**

Industry accountability equates to traceability across the supply chain. One example is in how contracts are written.

“We’re seeing more restaurants and retailers putting specific food safety requirements into their purchase contracts,” says Tauxe. “Some of the big fast-food chains are making sure their suppliers know that food safety is important.” This extends not only to tier-one suppliers, but tiers two and three and beyond, he says.

For instance, “there’s usually a wash involved with fruits and vegetables,” Tauxe says. “Supply managers are putting such things as ‘washing in clean water’ within the purchase contract. It seems basic, but corners can be cut: You can reuse dirty wash water over and over.” Or contracts might require a disinfection step or that a third-party auditor examine the packing shipment. The purchase contract should state the actual processes

## **Foodborne Illness by the Numbers**

- An estimated 48 million Americans get sick from contaminated food each year — accounting for 1 in 6 people or nearly 17 percent of the population.
- An average of 24 multistate outbreaks occur annually, affecting people in as many as 37 states at once.
- An estimated 128,000 people are hospitalized and 3,000 die each year because of foodborne illness.
- Only 3 percent of foodborne illness outbreaks from 2010 to 2014 occurred as a multistate outbreak.
- Multistate outbreaks result in about 56 percent of the deaths in all foodborne outbreaks.
- From 2010 to 2014, products were recalled in 46 percent of multistate outbreaks.

Source: The Centers for Disease Control & Prevention in Atlanta.



and results you desire, he says.

Another issue affecting a food's traceability is how it is packed and repacked. Comingling can be a problem. "For example, there are 25 crates of tomatoes from different suppliers with their name on each crate, and I start mixing tomatoes from different crates into a single shipping container. If there is a bad tomato, I'll never know which crate it came from. I've made it impossible to figure out," Tauxe says. It creates a big problem if an outbreak occurs, he says.

Thus, supply managers need to be able to trace food all along the supply chain. "If I'm supplying food, I'm accountable for safety," says Tauxe. "At the end of the day, that's what the attorney is going to find. Even if I have no idea where it came from or who produced it, I am accountable. Traceability is accountability."

### Improving Accountability

Accountability also is achieved by establishing food safety expectations along the supply chain. Training talent is essential, whether it's workers at the farm, sous chefs at a restaurant or food handlers and packagers, Schnaubelt says. Also essential is assuring supplier compliance. "You need to make sure your suppliers are regularly updating you on their inspections. And you need to have quality assurance programs," Schnaubelt says.

Mondelēz International, whose brands include Nabisco, Oreo and Triscuit, requires its suppliers and external manufacturers worldwide to meet well-defined safety and quality expectations. "This starts with our comprehensive supplier approval program to verify the supplier and the quality of the ingredients," Begg says. "Before we buy any ingredients or raw materials from a supplier, we conduct an initial audit of its facilities to make sure it

meets our supplier quality expectations. Afterward, we conduct audits on a periodic basis to ensure it continues to meet our strict standards."

Begg says that Mondelēz International employs state-of-the-art safeguards to ensure the quality and safety of the ingredients it uses. "Our focus is on prevention and early detection of hazards," he says.

Additionally, the company is focused on food safety certification and regulation. For instance, by the end of 2015, all 150 of Mondelēz International's manufacturing facilities achieved third-party food safety certification, he says. The certification, the FSSC (Food Safety System Certification) 22000, is based on independent, international standards and given to organizations that have a "robust and effective food safety management system" that meets certain requirements, according to fssc22000.com.

And by 2018, all of Mondelēz International's external manufacturers and suppliers must be certified against a food safety scheme recognized by the Global Food Safety Initiative (GFSI), says Begg. "We're making good progress toward that goal: At the end of 2015, 80 percent of our external manufacturers and 91 percent of our raw material suppliers were certified against a GFSI-benchmarked standard," he says.

### Mitigating Risk

In the sourcing and supplying of foods, supply managers are the critical middle people in connecting growers, suppliers or manufacturers with restaurants or retailers, and ultimately consumers. They have to know where food in a supply chain comes from and how it is produced, shipped and handled.

By establishing programs, recognizing where potential food contamination might occur and

improving accountability, they can mitigate food safety risk while responding to such challenges as changing consumer tastes. **ISM**

**Sue Doerfler** is a publications coordinator for *Inside Supply Management*®.

## Dining Out: Consumer Preferences

In March, AlixPartners surveyed 1,016 consumers ages 18 and older across the U.S. about their dining preferences. Among the key findings:

**Question: What should restaurants focus on in 2016?**

Answers (in order of preference):

- 1) Keeping prices low or reasonable
- 2) Food safety
- 3) Improving healthy menu options
- 4) Improving ingredient quality
- 5) Increasing wages.

**Question: What is your likely reaction if a chain restaurant company incurs a food safety issue?**

Answers:

- 28 percent said they would never eat at the chain again, regardless of location
- 28 percent said they would eat only at locations that weren't affected by the outbreak
- 34 percent responded that they would visit the chain, regardless of location, only after time had passed and it had been declared safe again
- 10 percent indicated they didn't plan to make changes to eating at the chain or its locations.

Source: AlixPartners' March *Tall Orders: Higher Wages and Menu Changes* study, also called *North American Restaurant and Foodservice 2016 Outlook*.

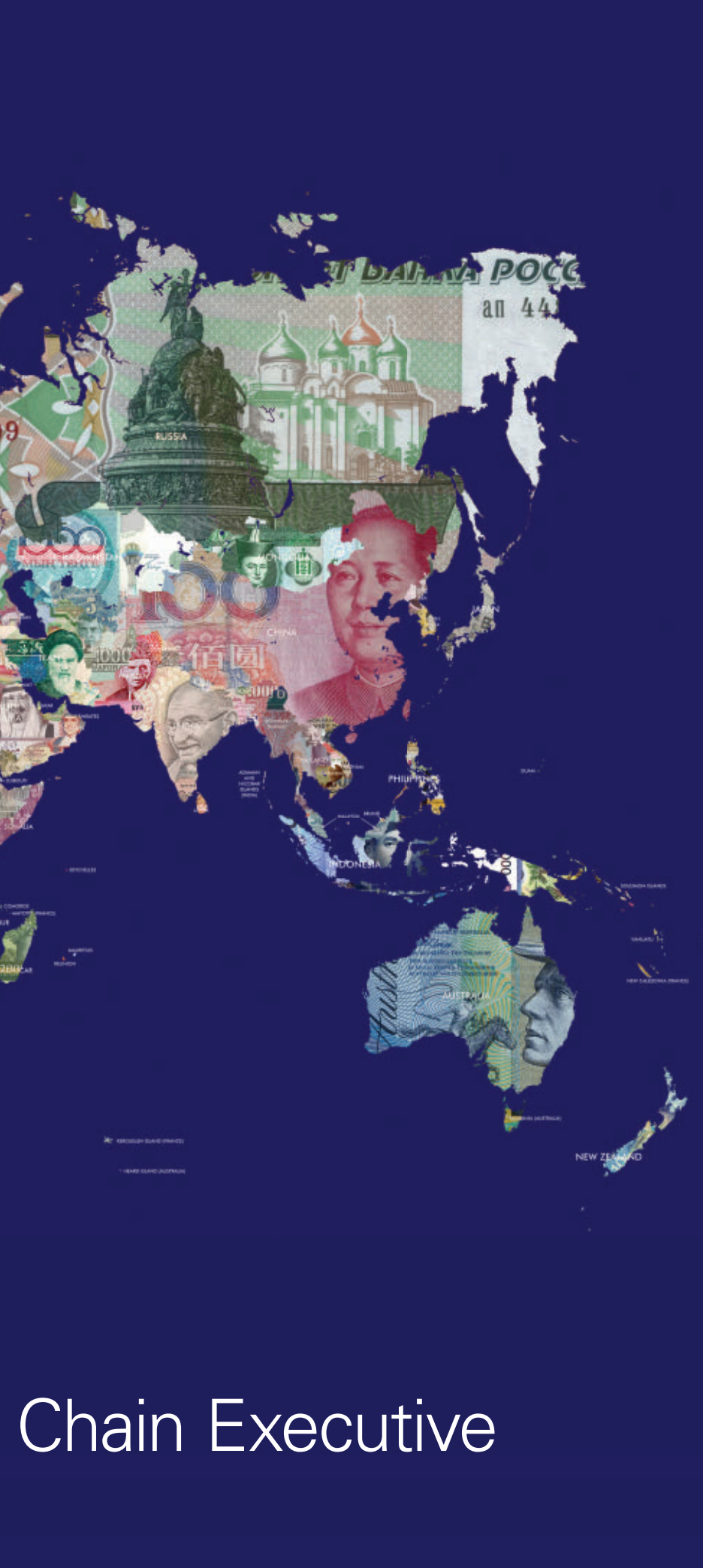


*“Free trade, one of the greatest blessings a government can confer on a people, is in almost every country unpopular.”*

— **Thomas Babington Macaulay**, English politician and historian, 1824

# Principles and Practicality: Foreign Trade and the Global Supply





## GUEST COMMENTARY

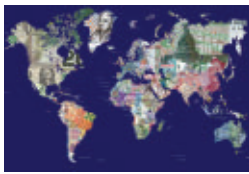
By Sean Ryan

Campaign rhetoric employed by Hillary Clinton and Donald Trump in this season's presidential election cycle has jeopardized an international marketplace based on principles of openness and transparency. Regardless of the victor on November 8, free trade, a U.S. foreign policy issue enjoying bipartisan support since World War II, has been dealt a setback this election season. All Americans, particularly those tasked with managing global supply chains, have cause for concern.

### The Political Challenge of Free-Trade Advocacy

The central political challenge of the free-trade agenda is that the benefits are diffuse while the costs are direct. All consumers benefit in small proportion relative to the losses suffered by the few workers in sectors displaced by import competition. Though the net effects are indisputably positive, the asymmetry of trade impacts has hindered free-trade advocacy since 18th century British economists Adam Smith and David Ricardo first challenged the mercantilist trading policies of their time.

The economic concept of comparative advantage makes clear that the wealth of a nation increases if it produces that which it is relatively more capable of producing and trades with other countries for that which it is not. It is a difficult argument to make and to comprehend. It is far easier to get your head around the simpler and incomplete



## Principles and Practicality



idea made famous by Ross Perot in the 1992 presidential campaign, when he voiced his thinking on how NAFTA would impact American jobs: “There will be a giant sucking sound going South.”

Who imagines that the welfare of Americans would be improved if our economy was fragmented among our 50 states, each with prohibitive barriers to the movement of goods and services across state lines? Such a system in which every state produces only for its inhabitants would leave some states destitute and all states poorer than they would be if they could exchange among themselves. Our 50 states benefit from the free exchange of goods and services across state borders in the same way that nations benefit from exchange across international borders.

Chief among the arguments against free trade are job losses. Those making this argument are rational — they represent the interests of laborers who work in import-threatened industries. However, their arguments do not merit our support when we consider the nation as a whole. The U.S. International Trade Commission (USITC), an independent, nonpartisan federal agency, examined the economic impact

on the United States of bilateral and regional trade agreements reached between 1984 and 2012. Its findings, published in June of this year, show that the net effect of U.S. trade agreements on U.S. employment is positive.

The commission states: “The bilateral and regional trade agreements increased total employment by 159.3 thousand full-time equivalent employees (0.1 percent) and increased real wages by 0.3 percent in 2012.”

Only a small number of us are employed in these vulnerable industries, but all of us are consumers. Retraining displaced workers through taxpayer-supported programs is the right mechanism for assisting individuals negatively impacted by trade liberalization. Policy positions that withhold the gains from trade from an entire country are not.

The American public intuitively understands this logic. The 2016 presidential candidates do not. In a statement reminiscent of Ross Perot and the 18th century mercantilists before him, Trump declared at the first presidential debate on September 26: “Our jobs are fleeing the country. They are going to Mexico. They are going to many other countries ... we are losing our good jobs. So many of

them ... they are all leaving. We have to stop our jobs being stolen from us.” He failed to mention the fact that though some jobs are lost, others are created when we open borders to trade. Clinton, less anti-trade than Trump, has withdrawn her support for important trade deals pending before Congress that she negotiated while Secretary of State.

The American public, in contrast, is much more informed when it comes to the benefits of free trade. A February 2015 poll conducted by Gallup exploring attitudes regarding free trade found that 58 percent of Americans see foreign trade more as an opportunity for economic growth than as a threat. Similar national polls conducted by the Pew Research Center (March 2016) and the Chicago Council on Global Affairs (June 2016) found similar results (see Figure 1). In sum, Americans are supportive of free trade, and for good reason.

### **A Generous Inheritance: The Postwar Economic System**

When allied leaders gathered to plan for peace near the end of World War II, they were united in the view that free trade not only promoted international



prosperity, but also international peace. Protectionist trade policies that came into force during the 1920s, culminating with America’s infamous Smoot-Hawley Tariff Act of 1930, deepened the effects and extended the duration of the Great Depression. As national economies deteriorated, political instability increased and war ensued. By the time the conflagration that engulfed the world in the late 1930s was finished, more than 60 million people became war casualties, and great nations in Europe and Asia had been laid waste.

Policy makers of the time believed that if goods did not cross borders, soldiers would. With this in mind, they established international institutions to rebuild shattered economies, mediate international disputes and tie national economies together so deeply that future armed conflict would be contrary to any nation’s interest.

The postwar economic system we operate within today was designed around five principal bodies — the United Nations (U.N.), the European Coal and Steel Community (ECSC — precursor to the European Union), the International Bank for Reconstruction and Development (World Bank), the International Monetary Fund (IMF) and the

International Trade Organization (ITO). The U.N. serves as the forum for political debate, the EU binds European countries economically, the IMF manages the international monetary system, the World Bank serves as an international lender and the ITO was to regulate international trade affairs. The ITO was the only institution never ratified.

The political challenge inherent with the free-trade debate reared itself again. Pressure from agricultural associations and labor unions, combined with the 1946 election of a Republican-led Congress campaigning on a platform of trade protectionism and retrenchment, stalled ratification of the ITO. When the U.S. backed away from establishing a robust trade management body, so did other countries. In place

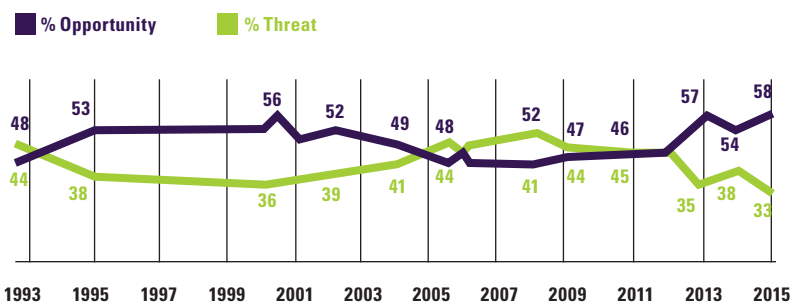
of the ITO, a weaker provisional agreement, the General Agreements on Tariffs and Trade (GAAT) was adopted. The GAAT served as the forum for multilateral trade negotiations from 1947 until 1994, when it was succeeded by the World Trade Organization (WTO).

### Free Trade, The Trans-Pacific Partnership and U.S. National Security

The international system established at the end of World War II is the direct result of visionary American leadership inspired by an American commitment to internationalism as a means of securing peace. That system and the values that underpin it have been championed by every administration, Republican and Democratic, since

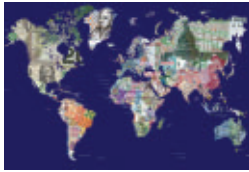
**Figure 1: What Americans Think Foreign Trade Means for the Country**

Do you see foreign trade more as an opportunity for economic growth through increased U.S. exports or a threat to the economy from foreign imports?



Source: Gallup





## Principles and Practicality

1945. It played a central role in the defeat of Soviet communism. Today, it serves as a mechanism for integrating a rising China, countering a resurgent and belligerent Russia and creating an alternate vision to that offered by Islamic extremists. The hotly contested Trans-Pacific Partnership (TPP) represents an immediate test of whether America will maintain its role as a reliable global leader of this system or whether it will abdicate to others.

TPP is a multi-party, Asia-centered free-trade agreement (FTA) focused on a broad base of trade issues, including agriculture, services and intellectual property protection. It emerged as WTO-member countries sought an alternative means to progress their trade agendas when WTO-sponsored multilateral negotiations stalled.

U.S. participation in TPP negotiations began in 2008 under the Bush administration. The Obama administration pushed forward with the initiative. Final agreement among the 12 participating countries was reached in October 2015. The treaty awaits ratification by the U.S. Congress before it can go into force. It faces an uphill battle.

The significance of TPP lies more in its strategic value for shaping the political and economic agenda of the Asia-Pacific region than in economic implications for the U.S. economy. According to the USITC evaluation published in May 2016, the impact of TPP on the U.S. economy is estimated to be positive, but small.

The evaluation states: "The Commission estimates that by 2032, U.S. real GDP would be (US)\$42.7 billion (or 0.15 percent) higher than a baseline scenario that reflects expected global economic conditions without TPP. Real income ... would be \$57.3 billion higher (or 0.23 percent) over the same time period. Employment would be 0.07 percent

higher, or close to 128,000 full-time equivalents ... total U.S. exports to the TPP parties would be \$57.2 billion (5.6 percent) higher than the baseline and U.S. imports from the TPP parties would be \$47.5 billion (3.5 percent) over the baseline."

National security implications by themselves justify passage of TPP.

The growing strategic importance of the Asia-Pacific region was formally recognized by the Obama administration in 2011 through a series of policy statements. The policy called for a rebalancing of U.S. energies toward the Asia-Pacific region, where half the world's population resides and China continues its journey toward becoming a global power. TPP, which excludes China, serves as a 21st-century mechanism for bringing together countries of the region to pursue their economic interests within a U.S.-driven framework. If the U.S. Congress fails to ratify TPP, then TPP-participating countries will require an alternative to support their trade and growth agenda. That alternative is China.

China is supporting an alternative to TPP that would include 16 Asia-Pacific countries and exclude the U.S. — the Regional Comprehensive Economic Partnership (RCEP). The U.S. decision on whether to ratify TPP amounts to a question of whether Asian economic integration will be based on a U.S.-led (TPP) or Chinese-led (RCEP) initiative. Former Singapore Prime Minister Lee Kuan Yew argued in 2013 that "without an FTA, Korea, Japan, Taiwan and the ASEAN countries will be integrated into China's economy — an outcome to be avoided." Kevin Rudd, then prime minister of Australia, argued "without such a move, there was a danger that China, with its hardline, realist view of international relations, would conclude that an economically exhausted United States was losing its staying power in the Pacific."

Failure of the U.S. Congress to

ratify TPP would have devastating consequences for U.S. leadership in the region, for the deepening of key partnerships in the strategically important Asia-Pacific region and for the future of the global trade agenda. Most importantly, failure to ratify would be tantamount to the U.S. stepping back from its leadership role in the region, creating a vacuum into which China would logically step — and which the region would have no choice but to accept. The transition costs of a small number of displaced workers who will be supported by transition assistance do not approach the threshold of what is at stake for the U.S. as a whole. TPP must be ratified by the U.S. Congress.

### Free Trade and Global Supply Chain Practicalities

For the global supply chain executive, the implications of the free-trade debate go beyond the broad questions of U.S. leadership of a stable and peaceful world; they impact the design and structure of product flows. As uncertainty regarding U.S. and global trade policy increases, so does the cost of managing global supply chains.

Global sourcing and manufacturing is a prerequisite for companies competing in today's global marketplace. Decisions need to be made around a host of topics including but not limited to:

- The number and location of production facilities
- The capacity of each facility
- Supplier selection for subassemblies, components and materials
- Logistics management and carrier selection for transport of finished product and manufacturing supplies.

These are strategic choices that are inflexible once taken. The increasingly contentious trade environment is intensifying conflict among global companies seeking to optimize



their supply chains and governments seeking to protect domestic industries.

In 2002, the WTO had been notified of the existence of 250 preferential trading agreements. By the end of 2016, that number is expected to grow to nearly 1,000. These agreements create constraints within which companies need to make long-term strategic choices about where to manufacture and where to source. A constantly changing landscape of free-trade agreements creates complexity that consumes management time and drives up costs. Rules of origin, value content, quotas, import tariffs, export tariffs, labor and environmental standards ... keeping track of these dynamics, let alone designing strategies to optimize within an ever-changing mosaic, offers no benefit to the supply chain executive.

Strong U.S. leadership of the global-trade agenda increases

the likelihood that trading nations adopt a less-complex multilateral approach to trade liberalization. The patchwork of bilateral agreements emerging recently is building complexity into the global supply chain. If the U.S., historically the world's champion of free-trade economics, steps back from this position, this complexity risks exploding. If this occurs, the ability for U.S. multinationals to compete on equal terms will be compromised.

### Practitioners, Make Your Voices Heard

Bipartisan bombardment of free trade this election season is turning parts of the electorate against free trade. If the American public turns against free trade, the data show that the U.S. economy will create fewer high-wage jobs, and America's ability to design and lead a global economic and security structure will be diminished.

As practitioners, supply chain executives have unique insight and a special interest in the free-trade topic. They must make their voices heard in their communities, in their industry associations and with their Congressional representatives. The economic- and security-related arguments made here make the case for a continued commitment to a liberal global economy. If these arguments are unable to compel elected officials to support the free-trade agenda and to ratify TPP, we might remind them that — despite promises of prosperity that were to come from the Smoot-Hawley Tariff Act of 1930 — the Great Depression worsened, and Senator Reed Smoot and Representative Willis Hawley lost their re-election bids in 1932. **ISM**

**Sean Ryan** is a partner with A.T. Kearney in Chicago, where he leads the Strategy and Marketing & Sales Practices for the Americas.

THE EVENT OF THE YEAR FOR FLEET PROFESSIONALS!

REGISTER NOW FOR

**NAFA 2017**  
**INSTITUTE & EXPO**

TAMPA, FLORIDA / APRIL 25-28, 2017 / [NAFAINSTITUTE.ORG](http://NAFAINSTITUTE.ORG)

[WWW.NAFAINSTITUTE.ORG](http://WWW.NAFAINSTITUTE.ORG)

LEARN FLEET'S BEST PRACTICES TO  
BETTER UNDERSTAND THE FLEET PROFESSION'S  
UNIQUE ASPECTS & REQUIREMENTS!

The banner features a yellow car on the left, a black car on the right, and a white van at the bottom right, set against a background of stylized blue buildings and a light blue sky with clouds.

## The Strategic Importance of Supply Management

CAPS Research survey data finds that successful procurement teams have growing access to company leaders and are proving their ROI worth.

**T**he role of supply management within top global companies has shifted and grown over the last 20 years, and advancements in such areas as automation, cognition and metrics continue to push the function forward by leaps and bounds. Are you prepared to grow with the function?

To position themselves at the forefront of the profession, up-and-coming supply management leaders should embrace technological improvements and align more closely to the core of the business. And even though their key role within companies is often not given its due, supply management teams have the ability to impact the bottom line, increase efficiencies and drive strategic goals.

Since 1995, CAPS Research has published the *Supply Management Metrics Report*, which collects cross-industry metrics on spend

categories, efficiency and employee ratios, as well as supply management's role within large companies and the functional areas of supply management employees. The 2016 survey received responses from professionals at 138 companies worldwide, with an annual average company revenue of US\$13.6 billion. Their companies' revenue totaled \$1.9 trillion, comparable to 10.6 percent of U.S. gross domestic product or 2.6 percent of global GDP. In short, the companies we surveyed are big, have a lot of financial weight and are actively driving shifts in the profession.

### Supply Management Has a Seat at the Table

The structure of supply management groups and their station within the company signal that supply management is now at the table to weigh in on decisions that affect the entire company. Supply

management leadership is working closer than ever with the CEO. CAPS Research survey data points out that 82 percent of CPOs are reporting directly to their CEOs or one level down — up from 60 percent in 1999. The supply management group is better represented and is now 88 percent centralized or center-led (hybrid). This offers them influence and visibility in the enterprise, with touchpoints throughout.

Visibility aside, supply management professionals need to prepare themselves for shifts in function and vision. The average supply management employee manages \$16.1 million in spend. Consider that buyers perform activities operational in nature, and category managers tend to focus more on strategy. As a result, there's naturally a more strategic need in mature supply management groups. We find that buyers manage the majority of spend in the industrial manufacturing and financial services industries, whereas in aerospace and defense — with its mature supply chain — category managers oversee more than four

times as much spend as buyers.

Knowing where your supply management organization stands against peers and competitors in (1) strategy versus operation and (2) managed spend per employee is extremely useful for allocating resources, budgeting and staffing. In other words, if you have a relatively small supply management group managing a disproportionate amount of funds, it would make sense to increase headcount respective to your industry and maturity curve.

### **Strategic Supply Management Professionals Deliver Excellent ROI**

Why is it important to achieve the proper balance of employees to managed spend? The average cost savings per strategic supply management employee is \$3 million, so if he or she is paid \$150,000 annually in salary and benefits, the return is 20 times greater than the expense. On average, only 1.8 percent of a company's employees are in supply management, and within that group, only 38 percent are

actually strategic. To break it down further, in an average company of 10,000 people, just 68 employees are dedicated to strategic supply management and provide some of the highest ROI. Again, strategic priorities are generally dependent on the maturity level of the supply management group — aerospace and defense leads the way, where 71 percent of supply management employees are strategic.

Now that the ROI potential of companies' supply management groups has been established, let's talk about expectations. Some would argue that when performance of a supply management group is benchmarked against its previous year's numbers, expectations can be unrealistic. An overwhelming 95 percent of the companies that responded to the survey track cost savings, with 90 percent tracking cost reduction. In a financial services sector with a 1,000 percent ROI in 2016, it's simply not practical to reduce costs enough year after year to remain at such a high ROI level. That said, once the precedent is set, it often

becomes the expectation from leadership.

Results from the cross-industry survey, as well as analysis, industry breakouts and comparative reports specific to the company (upon request and when available) are available to CAPS Research members. However, large nonmember companies can participate in the study and receive the metric report for free and start benchmarking their own data against the survey's.

For more information on this report or CAPS Research benchmarking, research or networking events, please visit [www.capsresearch.org](http://www.capsresearch.org). **ISM**

**Genevieve Gil, MBA**, is director of marketing and business development and **Steve Lutha, MS**, is benchmarking research specialist at CAPS Research in Tempe, Arizona.



## **Supply/Management**

**Apple Inc.** has the following job opportunities in **Cupertino, CA:**

### **Merchandiser (REQ#9NSQ4F)**

Resp for prod selctn, pricing, promo & profbtblty for accssry categs in Apple Retail Stores.

### **Procurement Lead (REQ#9D5Q6P)**

Source, des, dev & coord Srvc Supply chain.

### **Technical Product Coordinator (REQ#ADESQW)**

Assist in coord'ntin of ops busi areas acrss all geo regions w/in Apple.

Refer to Req# & mail resume to Apple Inc., ATTN: D.W., 1 Infinite Loop 104-1GM, Cupertino, CA 95014. Apple is an EOE/AA m/f/disability/vets.

## A Tailored Approach to Assessing Cyber Risk

To reduce problems, organizations need to align supplier assessment and third-party monitoring plans with cyber-risk criteria.

All organizations are dependent on their supply chain and third-party relationships. And in the drive for operational efficiency and competitive advantage, these relationships become more interdependent and interconnected, creating a host of potential cyber risks.

Some estimates claim that up to 80 percent of cyber breaches may occur in the supply chain; accordingly, organizations must rethink their traditional supplier assessments. The key is to identify cyber risks aligned to their business and incorporate this situational awareness into their strategies and tactics.

### Standard Oversight Methods Insufficient

Organizations devote time, money and resources gathering third-party, cyber-risk data in an effort to better manage their overall enterprise cyber-risk position. But this data collection can be a drain on the organization — and a source of additional enterprise risk. For most companies, supplier monitoring and third-party oversight manifest as onsite assessments and system-testing. This results

in those organizations dealing with a multitude of annual on-site assessments, penetration (pen) testing, self-assessments and questionnaires.

These monitoring and oversight programs are typically based on two best practices:

- Ranking suppliers based on inherent risks, such as access to networks and protected data, and the potential to impact the enterprise
- Using security standards or self-assessments to provide a holistic image of an organization's cyber-risk profile and highlight specific vulnerabilities or risks.

Most monitoring plans strive for some level of onsite assessment and system testing. Companies faced with the cost and logistics of assessing hundreds or thousands of suppliers are logically forced to align their monitoring methodology to the supplier's risk ranking. Suppliers are typically ranked based on their inherent risks and potential impact to the organization. For example, tier-one





We're waiting for your story.

Your magazine. Your knowledge. Your stories.

Contact John Yuva, managing editor of *Inside Supply Management*<sup>®</sup>  
800/888-6276, extension 3021 or [jyuva@instituteorsupplymanagement.org](mailto:jyuva@instituteorsupplymanagement.org)



suppliers likely undergo more detailed cyber-security oversight, such as formal onsite assessments and pen testing, while lower-ranked suppliers receive more cursory monitoring, such as self-assessments or questionnaires.

### Build an Effective Assessment Program

However, these traditional ranking and assessment methods can be flawed. Tiered rankings miss specific cyber risks in lower-ranked suppliers, and many different types of supplier assessments generate mountains of data that is difficult to analyze and integrate into operational decision-making. Take, for example, Target's 2013 breach, which was initiated through a HVAC supplier's stolen credentials. It is unlikely that many organizations would have ranked that HVAC supplier as a tier-one supplier that required detailed cyber-security oversight.

Thus, an effective assessment program should be built around the cyber risks specifically related to your enterprise. To efficiently manage your supply chain partners, your monitoring strategy should be founded on two items:

- A supply chain cyber-risk criteria that is structured and aligned to your cyber-risk profile and your tactical and strategic business plans
- A methodology that efficiently ingests and presents monitoring data to shape current tactical and strategic business decisions.

### Reshape Your Monitoring Strategy

Enterprise cyber-risk criteria is formed from a detailed understanding of your cyber-risk position and how your suppliers and partners impact your vulnerabilities and risks. The focus is on your cyber-risk characteristics, not the importance of the third party to your business. Mapping these risks

to your suppliers and third-party partners should provide the foundation of your assessment strategy.

Most assessment methodologies provide a broad overview of an organization's security position. However, if your cyber-risk criteria include, for example, counterfeits and taints, completing a standard assessment or questionnaire will not provide the needed insight. Instead, lower-ranked suppliers with specific risk areas — for example, those susceptible to tainting or those using online billing — should be highlighted in the ranking process. By identifying these risk categories and suppliers, you can efficiently tailor your monitoring strategy across your supplier base.

Your monitoring strategy should also account for constant changes in the supplier landscape. Aligning your contracting structure to your monitoring strategy can help account for these inevitable changes.

### Create an Effective Data Integration Strategy

Supply chain partners looking to reduce the cost and resource burdens of multiple assessments frequently seek to reuse already completed assessments or self-assessment questionnaires across their supply chain partners. But doing so can be daunting and unmanageable for those receiving the information. Depending on the method, each of these assessments can address 80 to 300 different security control areas. And while these assessments and questionnaires cover essentially the same key cyber-risk areas, they pose slightly different questions and require different evidence. The result is a complex maze of unmanageable data and reporting.

Shelves of assessments may keep regulators at bay, but they won't help your risk management or competitive position. The key is to get needed information into

the organization so you can make better decisions. Your data integration strategy needs to enable information reporting at two levels:

- 1) Procurement and supplier management, to support contractual management oversight
- 2) Enterprise risk management, to support strategic, operational and risk-transfer decisions.

With a supplier assessment strategy that earmarks key data, framed by the cyber-risk criteria and supply management business drivers, organizations can quickly capture and allocate critical or bellwether trends for distribution and action. Depending on your desired level of integration and sophistication, the data can be integrated into regular business reporting, from stop-light charts to detailed and prioritized risk-mitigation plans.

### Tailor Your Approach

While traditional approaches to supplier and third-party management may seem to answer requirements for third-party monitoring, the inherent complexity and resource burden often prevents meaningful absorption of the data.

Without the ability to efficiently identify and react to vulnerabilities identified in the monitoring process, a company may miss a risk-reduction opportunity or be held accountable for not taking corrective action after being informed of a material cyber risk.

Thus, to reduce potential problems in the supply chain, an organization should focus its supplier assessment and third-party monitoring plans around methodologies and tools that highlight risks aligned with its specific cyber-risk profile and support dialogue between corporate leaders and operational management teams. **ISM**

---

**Timothy Hall** is the president of Azorca Cyber Security, LLC in Mesa, Arizona.

*Awarded*

I was ~~passed over~~ for  
the promotion.

A CPSM® Can Make All the Difference.



## CPSM® Certification



### Where are you on the road to success?

There is a reason ISM® has certified more than 60,000 supply management professionals worldwide. This professional achievement is highly valued by employers and organizations around the globe.

The Certified Professional in Supply Management® (CPSM®) certification recognizes a mastery of key competencies in global supply management and leadership.

### Expand your knowledge of:

- Sustainability in a global market
- Strategic sourcing and supplier management
- Risk and compliance
- Forecasting and materials management
- Contracting and negotiations
- Cost, price and finance
- Leadership essentials

### CPSM Bundle Options — Save 15%

#### Print Diagnostic Option

- CPSM *Diagnostic Practice Exam*
- CPSM *Study Guide*
- ISM *Professional Series*

#### Web Diagnostic Option

- CPSM *Diagnostic Practice Exam, Web version*
- CPSM *Study Guide*
- ISM *Professional Series*

### It's easy to get started.

Take the CPSM *Diagnostic Practice Exam* and assess your knowledge level. Use your score report to identify areas of study. Then, take advantage of the CPSM *Study Guide*, ISM *Professional Series*, and online resources and seminars.

Learn more at [instituteforsupplymanagement.org/CPSM](http://instituteforsupplymanagement.org/CPSM) or call Customer Service at +1 480.752.6276, opt. 8.



## CPSM's Continuing Strength and Relevance

With help from Job Task Analysis data, the certification will evolve to meet practitioners' changing roles and needs.

**T**hey are just four letters, but they tell so much. Institute for Supply Management's CPSM® — Certified Professional in Supply Management® — designation conveys an individual's mastery of the core competencies of the profession.

Because CPSM focuses on those competencies — the foundational aspects of effective supply management, broader supply chain aspects and leadership — it stands out from other certification programs. Also distinguishing is its incorporation of professional feedback through the input of thousands of practitioners.

### CPSM's Strength

CPSM certification long has been considered the most robust certification process in the profession. Developed and administered based on best practices in the field of certification, it reflects the

expanded knowledge, skills and abilities (KSAs) of a supply management professional.

To earn CPSM certification, an individual must have either:

- At least three years of full-time supply management experience and a bachelor's degree from a regionally accredited institute or international equivalent
- Five years of full-time supply management experience without a bachelor's degree.

Supply management experience must be nonclerical and nonsupport.

Additionally, an individual must pass three exams: Foundation of Supply Management, Effective Supply Management Performance and Leadership in Supply Management.

CPSM certification goes far beyond what can be learned by obtaining a certificate in a supply management-related topic. A

certificate indicates that an individual has completed a class or course on a particular subject or focus and does not require an individual to have an academic degree, work experience or an extensive knowledge base.

According to the Institute for Credentialing Excellence (ICE), certification and certificates serve distinct purposes. One difference, ICE says, is that an assessment-based certificate provides training, whereas a professional certification program "assesses knowledge, skills and/or competencies previously acquired." Another is that an assessment-based certificate acknowledges mastery of specific knowledge, whereas certification designations are awarded to recognize achievement, the organization says.

Certificates have their place, ISM CEO Thomas W. Derry says, but they don't have the scope offered by certifications such as CPSM.

### CPSM's Significance

ISM has certified more than 60,000 individuals in 30 countries through programs that include

CPSM. More than 13,000 individuals have received CPSM certification since it was introduced in 2008. Forty-eight percent who hold the CPSM designation are from the U.S., but globally, the percentage is growing: Two years ago, 47 percent of those who attained a CPSM were from outside the U.S.; this year, that figure is 52 percent.

Global individuals come from China, Hong Kong, South Korea, Japan and Canada, among other countries. The certification is seeing growth in India, and in the past year, a Spanish version of CPSM was launched to meet the growth in Latin America. Besides Latin American Spanish, the exam is available in simplified Chinese, Japanese and Korean.

This global acceptance reflects CPSM's status as the gold standard of certification. It demonstrates its relevance to practitioners around the globe, not just those in the U.S. — making it transportable anywhere and to any company in the world.

### CPSM's Relevance

ISM has embarked on a rigorous project that will enable CPSM certification to be even more relevant in today's changing supply management landscape. The initiative, called the ISM Job Task Analysis, provides a look at current supply management practitioner roles and responsibilities. The project will be used as an integral tool to help ISM update the CPSM and CPSD™ (Certified Professional in Supplier Diversity®) certifications.

A key result of the Job Task Analysis will be to ensure CPSM's relevance within the profession. Through this in-depth research project, a several-year process that began in early 2016, ISM is learning how today's professionals

rank their job tasks and what their required skills and abilities are. That information will be used to create a new specification for the program, develop new study materials and tailor the CPSM Exams to meet the needs of the profession today and into the future.

The first step of the process was three-pronged: Hundreds of job descriptions were collected, preliminary interviews with supply management professionals were conducted and open-ended questionnaires were sent to others. Psychometrician Dr. Eugene Muller, Ed.D., who is creating, overseeing and monitoring the process, aggregated the resulting data into a list of key tasks.

Next, a global survey centered around those tasks was created. Sent to thousands of supply management professionals, from entry level to senior management across a wide variety of industry sectors, the survey asked respondents to rate the tasks on a scale ranging from "I don't do it; it's not very important" to "I do it; it's very important." More than 2,600 responses were received. The responses were used to create a final list of the critical tasks that supply management professionals perform. A group of industry practitioners and academics were engaged to help ensure the right KSAs required for each of those critical tasks were identified.

The Job Task Analysis process has identified shifts in some tasks; for example, today's supply management professionals are more focused on category management and strategic sourcing than in the past. Additionally, it has shown that risk management, sustainability and social responsibility continue to grow as concerns and interests for supply managers. And as the profession evolves, data management

and use of technology will play an even larger role in supply managers' everyday jobs. Nevertheless, Job Task Analysis research has shown that core supply management principles — sourcing, negotiation, cost management and people leadership — remain important.

### Looking Forward

There is still work to be done. ISM has updated the CPSM Exams specifications, and the next steps are to weight tasks across the exams, develop new questions to reflect the evolving profession and create new study materials. Our plan is to launch the English version of the new study materials about six months before the new exams, giving supply professionals time to study. Study materials and exams in other languages will follow. ISM will communicate key milestones publicly.

The benefits of the Job Task Analysis extend beyond the CPSM. The results will be used to update other ISM materials, such as the CPSD Exam and our Mastery Model®.

The project is "the most strategic initiative that ISM has embarked on," Derry says. He adds, "We have an obligation to educate the profession about how the profession is changing."

The Job Task Analysis project demonstrates ISM's dedication to being relevant to the profession through seeking professional input and focusing on the core competencies of supply management. And through projects like it, the CPSM will continue to remain the gold standard in supply management certification. **ISM**

---

**Nora Neibergall, CPSM, CPSD, C.P.M.**, is senior vice president and corporate secretary at Institute for Supply Management.



## Registration Is Open for ISM2017 in Orlando

More than 3,000 supply management professionals from around the world are expected to convene at the ISM2017 Annual Conference, held May 21-24 at Disney's Coronado Springs Resort in Orlando, Florida. The event will feature ample opportunities for learning from and networking with the best and brightest minds in the profession.

Register early and save money by visiting [www.ism2017.org](http://www.ism2017.org).

## J. Shipman Award Nominations Being Accepted

Institute for Supply Management® (ISM®) is accepting nominations for the 2017 J. Shipman Gold Medal Award. It's your opportunity to nominate your role model or mentor for the supply management profession's highest honor.

The award is presented to an individual whose career accomplishments have advanced procurement and supply management. Those chosen for the award have also assisted, mentored and guided other members of the profession to excel in their own endeavors.

A nominee should have a lengthy career of distinguished service. This person should be viewed by others as an innovator, community leader, mentor and teacher.

The winner of the 2017 J. Shipman Gold Medal Award will be announced at an awards luncheon at ISM2017.

The nomination deadline is February 1, 2017. Nominees do not have to be ISM members.

Johnson Shipman was a pioneer member of the New York

affiliate of the National Association of Purchasing Agents, now ISM, and was well-known for giving liberally of his time and counsel. The award in his name was created by the Purchasing Management Association of New York in 1931.

For more details on the J. Shipman Gold Medal Award and other ISM awards and scholarships, visit ISM's website ([www.instituteforsupplymanagement.org](http://www.instituteforsupplymanagement.org)) and select Educational Resources on the drop-down menu under About ISM.

## Persons of the Year Awards Nomination Process Underway

The ISM Persons of the Year Awards honor members who go beyond the regular scope of work to make outstanding contributions to ISM members and the profession.

The Persons of the Year Awards honor individuals in five categories:

- Education/Learning Person of the Year
- Innovation/Creativity Person of the Year
- Leadership Person of the Year
- Marketing/Communicating Person of the Year
- Volunteer Person of the Year

The Persons of the Year Awards are open to ISM members in good standing. Nominees are eligible for the year in which they are nominated and the following year.

Nominations must be submitted by January 31, 2017. Awards are presented at ISM2017.

For details and nomination forms, contact Mario Ballesteros, membership coordinator, at [mballesteros@instituteforsupplymanagement.org](mailto:mballesteros@instituteforsupplymanagement.org).

## ISM Headquarters Closed for Holidays

ISM Headquarters will be closed on November 24-25, 2016, for Thanksgiving and will reopen on November 28.

ISM's annual end-of-year close is December 26, 2016-January 2, 2017. Telephone and email messages left during these dates will be returned as soon as possible after ISM staff returns.

## 2016-17 Board of Directors Meeting in January

The 2016-17 ISM Board of Directors has called a meeting to be held on January 19, 2017, at Omni Scottsdale Resort & Spa at Montelucia in Scottsdale, Arizona. The initial session will be called to order at 8 a.m. MST. **ISM**

## November/December Ad Index

|                                      |     |
|--------------------------------------|-----|
| 30 Under 30 Supply Chain Stars ..... | BC  |
| Apple, Inc. ....                     | 31  |
| ISM2017 .....                        | IFC |
| ISM CPSM® Certification .....        | 35  |
| ISM Diversity 2017 .....             | IBC |
| ISM Membership .....                 | 39  |
| ISM Publications .....               | 33  |
| ISM Seminars .....                   | 3   |
| NAFA2017 Institute & Expo .....      | 29  |

# Volunteer Leadership Training

## Call for Presentations 2017

May 19-20, 2017 | Orlando, FL

Let's make our volunteer network stronger by exchanging ideas around membership recruitment and retention, affiliate successes and opportunities, and operations. This training benefits new volunteers as well as those with years of experience.

### What are we looking for?

**Membership:** What is your membership growth strategy?

**Certification:** What is your affiliate doing that benefits your members? Study groups? Training?

**Outside the Box:** Have you incorporated new and different professional development events?

**Best Practices:** Tell your story and inspire others.

**Roundtable Topics:** Any particular topic you would like to discuss with your peers? Let us know!

**Other:** Any topic that would benefit your peers!

### How to submit a presentation proposal

1. Email Melanie Larimer, Membership Manager, at [mlarimer@instituteforsupplymanagement.org](mailto:mlarimer@instituteforsupplymanagement.org).
2. Deadline is January 13, 2017.

Have a session idea but do not want to present? No problem! Please email your topic to Melanie Larimer at [mlarimer@instituteforsupplymanagement.org](mailto:mlarimer@instituteforsupplymanagement.org).



### Statement of Ownership, Management and Circulation

Statement of Ownership, Management and Circulation of *Inside Supply Management*® (Publication No. 1538-733)

Frequency of Issue: 7 issues annually. Annual subscription rates: US\$15 members; US\$48 universities and public libraries.

Office of Publication/Business Office: 2055 E. Centennial Circle, Tempe, AZ 85284

Publisher: Institute for Supply Management, Inc.®, Thomas W. Derry, Chief Executive Officer; John Yuva, Managing Editor

Owner: Institute for Supply Management®, 2055 E. Centennial Circle, Tempe, AZ 85284

Bondholders, mortgagees, other security holders: None. The purpose, function and nonprofit status of this organization, and the exempt status for federal income tax purposes, has not changed during the preceding 12 months. Issue date for circulation data below: September 2016.

| Average number of copies each issue during preceding 12 months  | Actual number of single issues published nearest to filing date |
|---|---|
| <b>A. Total number of copies (net press run)</b>  |   |
| 25,662  | 24,600  |
| <b>B. Paid by circulation (mail and outside the mail)</b>   |   |
| 1. Mailed outside-county paid subscriptions stated on PS Form 3541. (Include paid distribution above nominal rate, advertisers' proof copies and exchange copies) |   |
| 22,024  | 22,080  |
| 2. Mailed in-county paid subscriptions stated on PS Form 3541. (Include paid distribution above nominal rate, advertisers' proof copies and exchange copies)      |   |
| None  | None  |
| 3. Paid distribution outside the mail including sales through dealers and carriers, street vendors, counter sales and other paid distribution outside USPS        |   |
| None  | None  |
| 4. Paid distribution by other classes or mail through the USPS (e.g., First-Class Mail)   |   |
| None  | None  |
| <b>C. Total paid distribution (sum of 15b (1), (2), (3) and (4))</b>  |   |
| 22,024  | 22,080  |
| <b>D. Free or nominal rate distribution (by mail and outside the mail)</b>  |   |
| 1. Free or nominal rate outside-county copies included on PS Form 3541  |   |
| 2,964   | 1,446   |
| 2. Free or nominal rate in-county copies included on PS Form 3541   |   |
| None  | None  |
| 3. Free or nominal rate mailed at other classes through the USPS (e.g., First-Class Mail)   |   |
| None  | None  |
| 4. Free or nominal rate distribution outside the mail (carriers or other means)   |   |
| 219   | 250   |
| <b>E. Total free or nominal rate distribution (sum of 15d (1), (2), (3) and (4))</b>  |   |
| 3,183   | 1,651   |
| <b>F. Total distribution (sum of 15c and 15e)</b>   |   |
| 25,208  | 23,731  |
| <b>G. Copies not distributed</b>  |   |
| 455   | 869   |
| <b>H. Total (sum of 15f and 15g)</b>  |   |
| 25,662  | 24,600  |
| <b>I. Percent paid (15c divided by 15f times 100)</b>   |   |
| 87%   | 93%   |

I certify that the statements made by me above are correct and complete.  
**John Yuva, Director, Publications**



## Delivery Potential to Boost U.S. Drones Market

**W**ith Amazon CEO Jeff Bezos saying that his company's delivery drones will one day be as prevalent "as a mail truck," consumers are not the only ones salivating at the thought of their orders being fast-tracked in such a fashion.

Drone manufacturers are excited as well, with Amazon, Google and DHL among the companies openly embracing the potential of delivery via drones. Logistics is expected to be one of the key drivers of a U.S. market for commercial drones that is expected to grow at a compound annual rate of more than 25 percent through 2021, according to a report by TechSci Research.

An increasing adoption of drones for commercial use and a more-defined regulatory framework should be the key drivers of the growth, the report says. Bezos has

said that the "long pole" in drone technology is not going to be with technology, but the law, as governments seek risk resolution before regulations are loosened.

Last year, 45 states considered bills relating to drones, and 20 states — including California, Florida and Illinois — passed regulations.

Supply chain logistics will hardly be the only commercial sector to greatly benefit from drone technology, says Karan Chechi, research director at TechSci Research. "(Drones) are able to obtain real-time data, and therefore are being increasingly used for identification of potential hazards, mapping, photography, inspections and the like," Chechi says. "Integration of drones for such activities is proving to be cost-effective and efficient."

Source: [www.techsciresearch.com](http://www.techsciresearch.com), [gsb.stanford.edu](mailto:gsb.stanford.edu)

## Inside the Glossary

### **SYSTEMS CONTRACTING:**

A contract generated by purchasing that commits a supplier to keep adequate inventories of selected items and deliver them on demand. It authorizes designated employees of the buying organization, using a predetermined release system, to place orders directly with the supplier for specified materials during a given contract period. In the public sector, this type of contract is often called an "indefinite-delivery" or "term" type of contract.

**IN THE NEWS:** A subsidiary of L-3 Communications has won a potential (US)\$302.2 million contract to provide logistics services for the C-12 Huron utility lift aircraft of the U.S. Navy. Vertex Aerospace will perform post-production, aircraft maintenance and materials delivery under the firm-fixed price, indefinite-delivery contract and is scheduled to complete work in July 2021. ([www.govconwire.com/2016/05/l-3-subsi-dary-wins-302m-navy-logistics-support-contract-for-c-12-transport-trainer-planes/](http://www.govconwire.com/2016/05/l-3-subsi-dary-wins-302m-navy-logistics-support-contract-for-c-12-transport-trainer-planes/))

Source: *ISM Glossary of Key Supply Management Terms* ([www.institute-forsupplymanagement.org/glossary](http://www.institute-forsupplymanagement.org/glossary))

## World's Active Shipyard Population Drops

**T**he number of actively operating shipyards around the world has dropped by more than 40 percent from 2009, with the beleaguered Asia-Pacific region taking some of the biggest hits, according to research by the Korea Offshore and Shipbuilding Association.

Active Chinese yards decreased from 380 to 140, and Japanese yards fell from 70 to 60. The study's definition of an active yard is a facility with at least one ship on its backlog.

The forecasts aren't much better, as some of the world's biggest shipyards are expected to have an increase in unused capacity in the next year — including

DSME, one of South Korea's biggest shipbuilders. The builder is facing a liquidity crisis, thanks in part to an indefinite delay of a US\$900 million payment for two DSME drill ships by Sonangol, Angola's state oil company.

DSME's woes are another punch to South Korea's shipping industry, already reeling with the collapse of Hanjin Shipping, the country's biggest and the world's seventh-largest shipping line. Hanjin's bankruptcy disrupted supply chains worldwide, as billions of dollars of cargo were left stranded on vessels or seized by authorities and creditors. **ISM**

Source: [maritime-executive.com](http://maritime-executive.com)

# ISM Diversity 2017

## Uncovering Unconscious Bias

March 1-3, 2017 | Orlando, FL

Register before  
December 17, 2016 and

**Save  
US\$200**

With two fantastic keynote speakers and more than 10 educational sessions to choose from, you'll get the tools you need to master a diverse world.

Register today at [www.ismdiversity.org](http://www.ismdiversity.org)

Are you interested in sponsoring or exhibiting at ISM Diversity 2017? Contact ISM Sales at 800.888.6276 or [ISMSalesDept@instituteforsupplymanagement.org](mailto:ISMSalesDept@instituteforsupplymanagement.org).



# NOW ACCEPTING NOMINATIONS FOR THE 3<sup>RD</sup> ANNUAL 30 UNDER 30 RISING SUPPLY CHAIN STARS » RECOGNITION PROGRAM «

Nominate a young purchasing/supply chain management professional who deserves to be recognized for their contributions and making a difference for their organizations.

---

For more information visit [thomasnet.com/30under30](http://thomasnet.com/30under30)

