5 Ways to Improve Your Online Industrial Supply Catalog

written by admin | May 12, 2016

B2B ONLINE SALES ARE HEATING UP. HELP YOUR E-COMMERCE SITE COMPETE WITH THESE SUGGESTIONS.

(Industrialmarketer.com Jake Gerli May 3, 2016) If you take the idea of online industrial supply seriously and have made an investment in an e-commerce website, you definitely want to get the most for your money. There's a lot of potential, but it's also incredibly competitive.

For one, many smaller industrial distributors and OEMs that have decided to take the plunge have limited resources but are competing against massive industrial e-commerce leaders. They can't do everything they would ideally like to in order to make their online industrial supply venture succeed.

Online industrial supply companies that find themselves in this sort of situation need to prioritize features and updates for quick wins that will help them achieve ROI on their investment in an e-commerce or e-commerce-like website (e.g., a catalog site with cart functionality that leads customers to an RFQ, rather than direct checkout).

With these small- to medium-sized companies in mind, here are five straightforward things you can do to improve the performance of your online industrial supply catalog.

1. Speed Up Your Site Load Time

Back in 2012, TagMan partnered with Glasses Direct to study the effects of load times on e-commerce conversions. One of the conclusion of thiswidely-cited case study was that **a one-second delay could lead to a 7% loss in conversions.** For a high-price-point online industrial supply catalog, that could be tens or hundreds of thousands of dollars per day.

Per KISSMetrics, **47% of consumers expect a web page to load in two seconds or less** while 40% abandon the site if it takes more than three seconds to load. And that was back in 2011.

Earlier this year, Forbes conducted a site speed experiment and concluded that the 2-second mark is still the cut-off point.

So how do you make your industrial e-commerce site more nimble? Here are three easy suggestions your developer can follow to speed up your website. They include minimizing HTTP requests, removing render-blocking JavaScript, and enabling compression.

You can also use the Google Developers PageSpeed Insights tool tool to get some additional suggestions specific to your site.

Optimize your industrial e-commerce site by avoiding these 7 deadly sins.

2. Add a Search Bar or Improve Your Existing One

If your online industrial supply catalog doesn't have a search bar, please get one.

A free and easy way to add a search bar to your site is to use a Google Custom Search Engine. But really you should talk to your developer, who will be able to install something specific to your site.

Assuming you do have a search bar, you'll want to engineer it so that it responds to how your customers search for products. Every industry has its own vernacular and often there are variant terms for the same product. For example, an industrial facility manager may be looking for "compression packing" but choose to enter the term "compression seals" in your search bar.

Or, if your customers like to search by product code, there may be frequently dropped digits, misreadings, or transpositions in their search terms. For example, item number "4VKW8" may end up registering as "4VKW," "4VKWB," or "4VWK8."

You'll want your search results to account for these frequent minor errors, as well as odd punctuation (e.g., hyphens) and intentional brand-name misspellings.

Bottom line: Make sure your search experience is designed for your customers.

3. Write Your Own Content

If you populate your online industrial supply site with the content OEMs give you, you're inevitably going to run into issues with offsite duplicate content. This is because most of the other distributors out there who are selling the products had the same idea: List the items on their website using the default copy, images, and specification tables provided by the manufacturer.

As this article about offsite duplicate content explains, search engines get confused by sites with duplicate content and have a tendency to suppress them from search results. This means that it is unlikely a customer will find your online industrial supply catalog if they are looking for the products you listed using OEM-provided product descriptions.

The solution? Change your content enough so that it is unique. This process could include rewriting product descriptions, generating product reviews, inviting users to submit their own photos, or creating custom specification tables — anything that helps you stand out. The thought of doing this for thousands of SKUs is daunting but you can start by creating your own content for top sellers or marquee products.

4. Create Consistent Visuals

Let's talk specifically about visual content. If you have OEMs supplying you photos, chances are they are the same ones everyone else is using. For individual products, this makes perfect sense.

But how are you treating your product overview pages? If you're using stock photography or badly Photoshopped collages, your user engagement is going to suffer.

Consider a custom photo shoot to create the right branded experience on your home page, product overview pages, and for any promotional banners you may use on your site for seasonal sales or member discounts.

Moreover, a custom photo shoot will result in hi-res images that you could repurpose for online and offline collateral, including advertisements, brochures, line cards, and sell sheets.

5. Start a Remarketing Program

Cart abandonment is one of the most frustrating phenomena that plagues online retailers. It's frustrating to have basically paid the entire cost of new customer acquisition, only to be denied at the last minute.

While it won't turn all of your abandoned carts into sales, starting aremarketing ad program can at least recoup some of them. Even if they didn't provide an email address, your site should be linked to that customer via a cookie — a digital fingerprint that follows the customer wherever they go online —when a user abandons your checkout cart.

Using that cookie, you can continue to send ads to your almost-customers across Google's large display and text advertising networks. Or, send them reminders on Facebook, LinkedIn, or YouTube to entice them back to your online industrial supply catalog.

More Ways to Optimize Your Online Industrial Supply Catalog

The above suggestions are all things the team that manages your online industrial supply site should be able to tackle fairly easily.

For more advanced recommendations on how to improve the performance of your online catalog or e-commerce site, make sure to download our free eBook, "Update Your Online Catalog Already! 7 Deadly Sins That Are Costing You Leads."

The additional tips inside include suggestions for how to handle filters, pricing, and bad product data.

And if you still need help, you can always reach out to us at Industrial Strength Marketing.

E-Commerce Platforms for Industrial Supply

written by admin | May 12, 2016
WHICH E-COMMERCE SOLUTION IS BEST FOR B2B ONLINE CATALOGS AND STORES? HERE ARE 5 CONTENDERS.

There are a lot of e-commerce platforms available and it can be hard for business owners in the industrial sector to figure out what's right for them. Many industrials are B2B, whereas most e-commerce platforms are tailored specifically for the needs of B2C retailers and fail to provide support for the needs of B2Bs — things like product-based RFQs, pure catalog configurations with no purchasing options, and undisclosed pricing.

In this article, we'll look at several different community e-commerce platforms and discuss how they can serve the needs of B2B industrials.

Magento

https://magento.com

Price: $0–$18,000/yr.

Hosted: No

A Magento admin panel.

History

The first public beta of Magento was released in 2007. It started as a fork of osCommerce with the goal of making an e-commerce platform that was more flexible, extensible, and performant. In 2011, Magento was acquired by eBay. In November 2015, Magento released a updated version of their e-commerce platform, Magento 2.

Popularity

Magento is currently the most popular e-commerce platform (based on Google searches) and the most installed platform among the top one hundred thousand sites (based on BuiltWith statistics). But it is losing ground, particularly to Shopify and WooCommerce (see below).

Pricing Model

The Community Edition is free. The Enterprise Edition costs around $18,000 per year and comes with professional support and a handful of additional features and enhancements not available in the Community Edition.

Customizability

Magento was designed with the goal of being as extensible as possible. That, combined with its open-source, non-hosted nature, make it limitlessly customizable.

Evaluation

Its high level of customizability, mature codebase, active community, and large extension marketplace make Magento an attractive e-commerce solution for many business owners, particularly those with non-traditional e-commerce needs. When tackling an industrial e-commerce project, Magento is our catalog solution of choice

atIndustrial Strength Marketing, whether for a simple catalog, an RFQ-based system, or traditional e-commerce.

Shopify

https://www.shopify.com

Price: $9–$179/mo.

Hosted: Yes

A Shopify admin panel.

History

Shopify was first released in 2006, with an API platform and app store following in 2009. It has seen consistent growth since then. In 2015, Amazon closed their Webstore service and replaced it with Shopify.

Popularity

Shopify is the third most deployed e-commerce solution among the top one hundred thousand sites, according to BuiltWith. Google Trends shows rapidly rising search interest since its release, with Shopify trending to overtake Magento as the most searched-for e-commerce platform.

Pricing Model

Their tiers range from $29 to $179 per month with various additional features and lower fees for the higher tiers. They also offer a $9/month tier, but it does not include an online store—only a “buy” button, a POS system, and a Facebook sales channel.

Customizability

Shopify gives you a large amount of flexibility for a hosted solution, allowing you to implement custom themes and write plugins, but it’s still considerably more limited than an open-source, self-hosted platform such as Magento.

Evaluation

Shopify has very competitive pricing for e-commerce shops of all sizes, but business owners in the industrial sector who only need simple catalog or RFQ functionality may find it ill-suited to their needs, particularly with the barriers to customization that hosted solutions present.

WooCommerce (WordPress)

https://www.woothemes.com/woocommerce

Price: Free

Hosted: Dependent on WordPress installation

A WooCommerce admin panel.

History

WooCommerce was released in 2011. In 2015 it was acquired by Automattic, one of the core contributors to the WordPress project.

Popularity

By far the most deployed e-commerce platform across the Internet as a whole, WooCommerce is used for a much smaller percentage of the top one hundred thousand sites than either Magento or Shopify.

Pricing Model

The core platform is free, but they sell a variety of first-party extensions for common e-commerce catalog functionality. For example, theirProduct Add-Ons module ($49) allows for customizable products,WooSubscriptions ($199) adds subscription-based products, and theirUSPS Shipping Method extension ($79) allows customers to ship via USPS.

Customizability

WooCommerce plugins are just WordPress extensions, so it's highly customizable. Additionally, there is a large library of community plugins available from their extensions catalog, providing lots of common functionality: shipping/payment methods, additional product customization, alternative discount models, and so on.

Evaluation

Speaking as someone who's had to deal with many compromised WordPress sites, I would be very wary of using WooCommerce as an e-commerce solution. Given the importance and sensitivity of the information that needs to be passed around and stored as part of any e-commerce platform, WordPress has not historically provided the level of security that I would feel comfortable with.

That said, if you don't need payments or checkout, or you're confident your WordPress site is locked-down and secure, it might be worth considering. However, I would recommend a dedicated e-commerce platform rather than something built on top of blogging software.

PrestaShop

https://www.prestashop.com

Price: Free

Hosted: Optional (using PrestaShop Cloud)

A PrestaShop admin panel.

History

PrestaShop SA was founded in 2007 with the goal of supporting and developing the PrestaShop software, which was originally created as a student project in 2005. PrestaShop Cloud was launched in 2015.

Popularity

BuiltWith doesn’t track PrestaShop, but it’s consistently been one of the most searched-for e-commerce platforms, only being overtaken by WooCommerce and Shopify very recently.

Pricing Model

PrestaShop is free for both the self-hosted and PrestaShop Cloud (hosted) configurations. Like WooCommerce, they offer a variety of paid first-party modules: Online chat for $79.99, PayPal Direct payment method for $179.99, and gift card support for $89.99, to name a few.

Customizability

Much like Magento, the combination of being an open source platform and having a large library of extensions lend PrestaShop a high level of customizability.

Evaluation

PrestaShop has many of the same advantages that Magento has — open source, non-hosted, extensible, active community, plentiful extensions — but with the disadvantage of not having as large an install base or community, which makes it hard to recommend over Magento.

Bigcommerce

https://www.bigcommerce.com

Price: $24.99/mo. and up

Hosted: Yes

A Bigcommerce admin panel.

History

Bigcommerce (sometimes spelled BigCommerce) was launched in 2009 using Interspire Shopping Cart as its core. The enterprise version was released in 2015.

Popularity

The fourth most installed e-commerce platform across the entire Internet according to BuiltWith, Bigcommerce has low Google search rankings compared to the other e-commerce platforms reviewed in this article.

Pricing Model

Their standard configurations are, per month, $29.95 for up to $50k in online sales per year and $79.95 for up to $125k per year. They also offer a “Pro” tier that supports up to $1 million in sales per year for a default price of $199.95/month, but special pricing can be negotiated. Enterprise accounts, which allow unlimited sales, are by quote only and are priced by order volume.

Customizability

As with most hosted solutions, Bigcommerce’s customizability is fairly limited. Store owners have full control of their templates and styles, but extending or modifying functionality requires applying to become a Bigcommerce technology partner, even

for customizations that are only for personal use.

Evaluation

As with most hosted solutions, the difficulty of customization can be a real problem for business owners who have non-traditional eCommerce needs. Unfortunately, Bigcommerce presents an even bigger barrier than usual by requiring developers to apply to become technology partners.

Additionally, the open-ended, order-based pricing for high-income shops makes it hard to compare directly with other solutions.

It looks like Bigcommerce is a good fit for small- to mid-sized traditional eCommerce retail shops, but industrials may want to look elsewhere.

Selecting an E-Commerce Platform

Choosing an e-commerce or catalog solution is hard. There are a lot of e-commerce platforms available with a lot of parameters to consider, and it’s a long-term commitment — switching is painful and costly.

With that in mind, in addition to the aspects reviewed in this article, it’s important to consider what provides a high level of stability and reliability, what has a strong community, and what will still be around and supported for many years.

All of the e-commerce platforms reviewed in this article tick most of those boxes (we wouldn’t be considering them if they didn’t), but at ISM we’ve chosen Magento as our e-commerce solution of choice, and we suggest it to anyone considering building an online industrial catalog or store. Its long history as one of the most popular e-commerce platforms, its robust and mature codebase, and its customizability, in particular, makes it a very solid foundation for business owners to build their catalogs on.

We’ve built dozens of Magento solutions for a variety of business owners, particularly B2Bs in the industrial sector, and it has consistently provided us with

the flexibility and stability we need to create greatindustrial websites for our clients.

Quick Comparison Grid for E-Commerce Platforms

Prices have been normalized to yearly cost for easier comparison.

	Min. price	Max price	Hosted?	Customizability	Security	BuiltWith[4]	Google[5]
Magento	Free	$18,000	No	High	High	1st	1st
Shopify	$348[1]	$2,148	Yes	Medium	High	3nd	2nd
WooCommerce	Free	Free	No[2]	High	Low	2nd	3rd
PrestaShop	Free	Free	No	High	High	N/A	4th
Bigcommerce	$359.40	$2,399.40[3]	Yes	Low	High	4th	5th

1. Shopify also offers a $108/year ($9/month) tier, but because it does not include an online store we are not considering it.
2. Dependent on the WordPress installation under which it's installed.
3. Up to $1 million in online sales per year; starting at $199.95/month for up to 3k orders per year. Unlimited sales plans are by quote only.
4. Ranking based on the top 100k e-commerce sites. Percentage shares for Magento and Magento Enterprise were combined.
5. Ranking based on a Google Trends comparison of the following search terms: "magento," "shopify," "woocommerce," "prestashop," "bigcommerce."

Local-for-Local Manufacturing is Driving Reshoring Opportunities

written by admin | May 12, 2016

The advantage of being closer to demand is the ability to shorten lead times and to fulfill customer needs faster and more effectively.

(MH&L — Pierfrancesco Manenti: 4-29-16) There are no patriotic reasons behind the ongoing wave of reshoring, although many politicians are trying to navigate this wave today. The reason why so many companies—including Apple, Ford, Caterpillar, General Electric, Intel and others—have reshored some production plants back to their home country is primarily because they wanted to be closer to their customers. The increase in labor cost in traditional low-cost countries like China, combined with the emergence of new automation technologies, is making reshoring a viable option today.

Changing Manufacturing Footprint Strategies

Over the past few years, the approach to manufacturing footprint strategies has changed dramatically. Companies are moving from a strategy essentially driven by low-cost labor arbitrage to one driven by the needs of improving customer fulfillment through more agility and responsiveness. More than half of SCM World's community members tell us they are planning to reshore at least some of their production capacity.

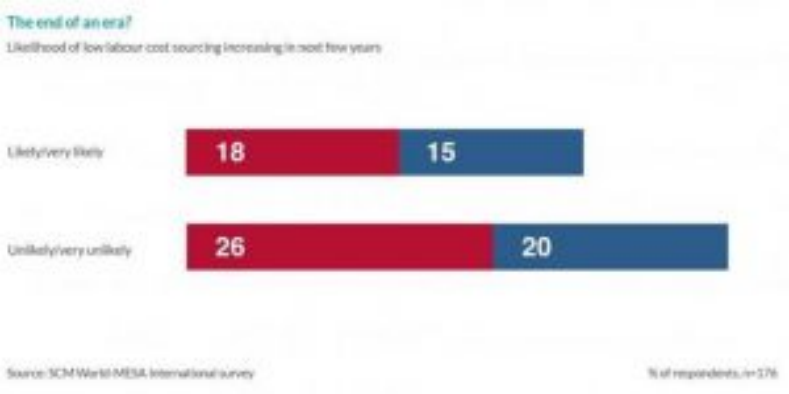
One of our members—Under Armour, a U.S. supplier of sportswear and casual apparel—has recently unveiled its reshoring strategies aiming to manufacture apparel and footwear back in the United States. The company is currently staffing a new advanced manufacturing innovation facility near the company's Baltimore corporate headquarters to investigate new production technologies and develop a new manufacturing model that would make this possible. Under Armour believes that "local-for-local manufacturing drives growth with better products and a more efficient supply chain."

Bringing the labor-intensive apparel and footwear industry back to the U.S. is also at the top of Walmart's agenda. Last January, the company's U.S. Manufacturing Innovation Fund awarded $2.8 million to five universities for their ability to address two key barriers to increased domestic manufacturing: first, to reduce the cost of textile production, and second, to improve common manufacturing processes with broad application to many types of consumer products.

Walmart's U.S. Manufacturing Innovation Fund was launched in 2013 as the company's long-term strategy to help revitalize U.S. manufacturing through a commitment to buy an additional $250 billion in products that support U.S. jobs by 2023. Based on Walmart's research and surveys of its customers, the company found that "Made in USA" is a strong driver of purchase decisions, second only to price. Products across all categories are, in fact, perceived to have higher quality if made in the U.S.

Local-for-Local Manufacturing

With the dramatic increase in labor costs in many traditional low-cost countries like China, the business case for pure low-cost country sourcing is less obvious today than it was previously. The majority of respondents to a SCM World survey consider it unlikely that their companies will increase sourcing from lower labor cost countries over the next few years. The share of these companies is 13 percentage points higher than those who say they are likely to increase offshoring.



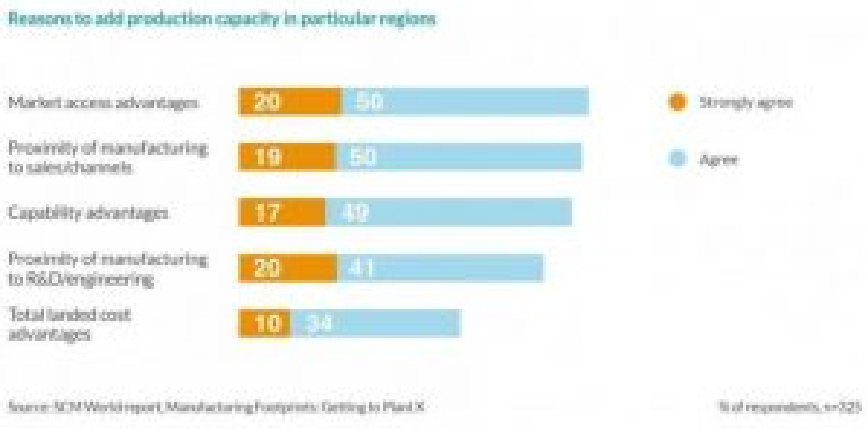
With this development in mind, last year one of our community members from the CPG industry came to us asking, “Where is the next China?” This initial question quickly changed into a more strategic one: “How can we make a long-term, sustainable impact on our manufacturing footprint strategy?” To answer this question, the company entered a phase of profound transformation built on a multi-year roadmap geared around investing more in automation and hiring more highly-skilled people. The long-term strategy is to move manufacturing closer to demand, which doesn’t necessarily mean bringing manufacturing back to its home country.

Perhaps the best example of local-for-local manufacturing is from Danish toy maker Lego. Unlike most other firms in its industry, Lego did not race off to build low-cost production capacity in China. Bali Padda, Lego’s executive vice president and chief operating officer, describes Lego’s local-for-local manufacturing footprint as comprising regional production sites, serving the U.S. market from Monterrey, Mexico, and European markets from facilities in Denmark, the Czech Republic and Hungary. The company is now setting up in China to serve the Chinese domestic market.

“It is our strategy to have production close to our core markets in order to secure short lead-times and world-class service to our customers and consumers, and it has proven a successful strategy,” says Padda. “In addition, by placing a manufacturing site in the region we reduce our environmental impact as we will reduce the need for transporting products from Europe to be sold in Asia.” The way for Lego to maintain its core production close to markets —including its largest manufacturing plants in high-wage Denmark—is through leveraging cutting edge automation. If you can’t do low-cost labor arbitrage, then automate!

The Business Case for Reshoring

Modern manufacturers understand that there are several other factors they have to consider beyond low-labor-cost opportunities when adding new production capacity. For example: lead-time considerations, sustainability implications, higher working capital and supply chain disruptions—to name but a few—are essential drivers, which have often been overlooked in the past.

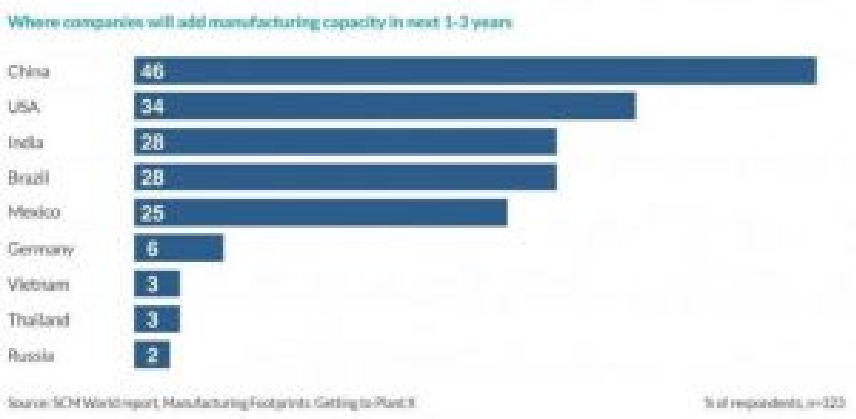


The SCM World community helps us again to identify the most compelling reasons driving today's manufacturers to add production capacity in different global regions:

- **Market access**. Opening or moving a plant in a certain new location means overcoming trading barriers and working with local partners for easier market access. It also means a better understanding of local demand and customer preferences.
- **Proximity to demand**. The advantage of being closer to demand is the ability to shorten lead times and to fulfill customer needs faster and more effectively. It also enables manufacturers to customize and localize products efficiently.
- **Capability**. Moving from capacity to capability means developing a higher degree of production flexibility, which can be achieved through levels of automation and highly-skilled resources.
- **Proximity to R&D**. Better integrating manufacturing and R&D drives more effective and efficient new product introduction.

Local-for-local manufacturing is, therefore, the emerging manufacturing footprint strategy. For this reason, China continues to be a magnet for new manufacturing

capacity. As shown in an SCM World report, China is the top country for manufacturers to add new capacity in the next few years. This is not happening because China is a low-cost country, but rather because China is one of world's largest economies.



Is Reshoring Real?

Last December, two conflicting reports about reshoring trends were released. One by A.T. Kearney stated that reshoring may be over; the other by the Boston Consulting Group insisted that reshoring is alive and kicking. ATK's authors report that "overall domestic U.S. manufacturing activity failed to keep pace with the import of offshore manufactured goods over the five-year period." On the other hand, "31% of respondents to BCG's fourth annual survey … said that their companies are most likely to add production capacity in the U.S. within five years for goods sold in the U.S., while 20% said they are most likely to add capacity in China."

I think both are right! And wrong! As pointed out in this blog, "ATK tries to measure reshoring indirectly by measuring imports. […] BCG uses surveys of reshoring plans, but companies' actions often differ from plans." We should instead measure the hard facts. The opportunity comes from McKinsey's Digital globalization: The new era of global flows report. They found that global consumption growth is outpacing trade growth for a number of finished manufactured goods, such as cars, pharmaceuticals and plastic goods. Where are those goods being made? Well, the answer is very likely to be found in local-for-local manufacturing.

The original confusion here is on the meaning of the term *reshoring*. We shouldn't consider reshoring simply as bringing back manufacturing to a home country. That

doesn’t make any business sense per se, unless the home country has a thriving economy. I believe local-for-local manufacturing is a more appropriate term to describe today’s manufacturing footprint strategies. This might call for reshoring to home countries or nearshoring opportunities. It might well still call for low-cost country sourcing. The reality is that companies will only add production capacity to a certain location if the economics makes sense.

As a matter of fact, manufacturing footprint design increasingly requires considering dozens of separate variables, each with unique variances and all interacting in ways that change with time. Time is especially critical to the analysis because factories exist in space and society in ways that affect people’s lives as well as return on invested capital.

The main conclusion, then, is that manufacturing footprint design demands the best strategic and technical thinking available. It is not a one-time activity, nor can be simplified down to formulae in a spreadsheet. Tackling this dynamically involves a number of elements that makes companies winners or losers.

(Pierfrancesco Manenti is VP of research at SCM World, a cross-industry learning community powered by influential supply chain practitioners.)

Manufacturing Remains on Right Side of Growth Again in April

written by admin | May 12, 2016

(Modern Material Handling – Jeff Berman: 5-2-16) Manufacturing activity in April remained on the right side of growth for the second straight month, following six months of contraction, according to the April edition of the Manufacturing Report on Business from the Institute for Supply Management (ISM).

The PMI, the index used by the ISM to measure growth, was 50.8 (a reading of 50 or

higher indicates growth) in April, which was down from March's 51.8. From October through February, the PMI had seen sub-50 readings, with October marking the first month that the PMI was below 50 since November 2012. April's PMI is 0.4 percent above the 12-month average of 50.4. ISM noted the overall economy has seen growth for 83 months in a row.

Including the PMI, one of the report's key metrics was up in March. New orders, which are often cited as the engine that drives manufacturing, were off 2.5 percent at 55.8, still a very strong number and growing the past four months, and production saw a 1.1 percent decline to 54.2, while also still growing over the last four months. Employment up 1.1 percent to 49.2 and remained in contraction mode for the last five months.

ISM said that of the 18 manufacturing sectors contributing to the report, 11 reported growth in April, including Wood Products; Printing & Related Support Activities; Paper Products; Plastics & Rubber Products; Primary Metals; Fabricated Metal Products; Chemical Products; Machinery; Computer & Electronic Products; Nonmetallic Mineral Products; and Food, Beverage; and Tobacco Products.

Comments submitted to the report by ISM member respondents were on the optimistic side. A printing and related support activities respondent said activity is increasing as his company moves into the busy season, and a miscellaneous manufacturing respondent explained that business conditions are stable, with sales and production rates steady to improving.

"New orders and production are broadening out their bases of support, with 15 of 18 sectors reporting gains in each category, even though the PMI was down slightly," said Brad Holcomb, chair of the ISM Manufacturing Survey Business Committee, said in an interview.

April inventories at 45.5 were off 1.5 percent from March, which Holcomb said still represents a conservative inventory management strategy on behalf of manufacturers, with most of them likely being instructed to keep inventory levels down. This movement, he said, is likely pulling the PMI down, while noting that is not necessarily a bad thing.

“I think inventories are going to move up in the future, especially as new orders continue to grow,” he said. “New orders minus inventory for April is at 10.3, following 11.3 in March. It is a pretty strong indicator that we don’t have enough inventory to really support this ongoing level of new orders, assuming that continues.”

Prices jumped up 7.5 percent to 59.0, with all commodities, including those related to oil, showing gains. He cited metals and resins, among those seeing gains that are directly related to oil.

April supplier deliveries at 49.1 were down 1.1 percent from March but showed growth as a reading below 50 for this category indicates growth. And backlog of orders dipped 0.5 percent to 50.5.

“If you look at both production and backlog, they obviously work together,” he said. “Production is down a little bit, but backlog is up, which is a good thing as it supports continuing production. Supplier deliveries up and down around 50 is par for the course and sort of going along with the flow.”

While the PMI remained above 50 again in April, IHS Global Insight U.S. Economist Michael Montgomery was bearish in regard to the report.

“The PMI, cooled back down toward mediocrity in April, losing an index point to 50.8 from 51.8,” he stated in a research note. “Orders and production both remained over the 50-mark that separates expansion from contraction, but both lost a bit of ground from the month before, also cooling back to mediocrity. The much-watched export reading firmed by another half point [to 52.5], but the import tally also rose by half a point, to yield no suggestion of an improving net foreign trade picture.”

(Jeff Berman is Group News Editor for Logistics Management, Modern Materials Handling, and Supply Chain Management Review.)

The 7 Reasons It’s Great To Work In Manufacturing

written by admin | May 12, 2016

(blog.thomasnet.com April 26, 2016) Everyone who works in manufacturing knows that it’s one of the coolest industries to be in right now. Whether you are a seasoned professional or a millennial making an impact, there’s a lot to love about manufacturing. Here are some reasons why.

Contributing To The Economy

The manufacturing industry helps support the global and national economies, as well as individuals and families. In fact, Hytrol reports:

– There are 17.6 million manufacturing jobs across the United States
– For every job held in manufacturing, 2.91 jobs are created in another sector
– Every dollar spent on manufacturing equates to $1.37 contributed to the economy overall
– One in every six jobs in the U.S. is a manufacturing position

Clearly, manufacturing is having a big impact on jobs, livelihoods and the economy. That’s something to be proud of.

On The Cutting Edge

We’ve talked about this at length before, but manufacturing has always been on the cutting edge of technology. 3D printing, drones, and the Internet of Things are just the latest examples of manufacturing companies adopting new technology long before the public gets their hands on it. And, for all the tech heads in the industry, that is the best reason to get up and go to work each day. It’s good to be ahead of the curve.

Exciting Sectors Of Work

For some, relaying details about their jobs may be met with disinterest and boredom. But that’s not the case for those in manufacturing who can regale friends about developments in aerospace, share the latest in food manufacturing with families over Thanksgiving dinner, or tell neighbors about the newest

pharmaceuticals they are processing. With so much excitement within the industry, you'll have plenty of awesome information to share with those outside of it.

Show Me The Money

It may be a little taboo to talk about, but the pay within manufacturing is nothing to scoff at. As of 2014, the average wage of someone in manufacturing is $77,000 a year, far above the minimum wage many believe blue collar workers receive. Additionally, benefits and high job tenure allow you to lead a comfortable life with a job that doesn't make you take your work home.

It's Totally Safe

A huge myth the industry has been fighting for decades is how unsafe manufacturing is. And for a long time, it absolutely was a high risk career path plagued by chemicals, machines, and other hazards. But we've come a long way. Robots are making our jobs safer, and technology like the Internet of Things and automation keeps us out of harms way. We are working smarter, and safer, than ever before.

Fruits Of Your Labor

One of the great benefits to working in this industry is the fact that you are often working on real, tangible products. Whether working on every day items you can buy at the store or huge set pieces for blockbuster movies, you can point to something and get the very satisfying pleasure of saying "I made that." That's more than most service or white collar jobs can say.

Room To Grow

Once you choose a sector to go into, there are plenty of options for your career path. From fabrication and welding to research and distribution, the possibilities seem endless. There is always room to grow and advance your career.

There are also jobs within the manufacturing sector for those from other disciplines, such as sales and business development, marketing, human resources, and many others. These positions afford all of the benefits of working in manufacturing – the pride, stability, competitive salaries, excitement, great technology and others – to people from many different backgrounds. Not every industry can boast of the same potential and flexibility.

How Must You Adapt Your Supply Chain?

written by admin | May 12, 2016

(IW – IDC Manufacturing Insights: 4-20-16) Manufacturing supply chains are experiencing levels of change heretofore unprecedented in their history. Significant shifts in consumer preferences and behaviors, along with the emergence of a whole new set of enabling technologies, are conspiring to create both massive opportunities and equally massive challenges for the traditional supply chain.

It comes as no surprise, then, that supply chains are transforming themselves to meet these opportunities and challenges. It is a journey, of course, with some manufacturers further ahead than others. The key points and areas of discussion in this white paper are:

• The most compelling opportunity, the one driving the most change, is that of "customer centricity" and the transforming role of the consumer. Most manufacturing supply chains have been designed for the mass market reseller, moving full pallets on full trucks, and have operated as such throughout much of their history. Yet these businesses are now facing the challenge of smaller cases or even units, LTL or parcel shipments, and high levels of customization — all things that the current supply chain is poorly equipped to manage.

• The future of the supply chain is one of an outwardly networked and collaborative organization that fully integrates supply chain with design, manufacturing, and asset management into an "extended" supply chain that is able to respond quickly and accurately to a broad set of customers and consumers as well as their evolving requirements and expectations.

• The evolution from a "traditional" supply chain to an "extended" supply chain is not something that can happen overnight. At IDC Manufacturing Insights, we would

suggest that it's a journey (one that many companies have begun and that others have yet to begin), but it's a necessary journey if the supply chain is going to effectively meet its role in the modern, digitalized business environment. The challenges are not small, including the key question of how to best integrate internal domains with the external world of demand, supply, and innovation. But, equally, the benefits are not small.

• Technology is a key enabler, specifically the presence of cloud-based business-to-business (B2B) platforms. Cloud is perhaps most germane to this discussion of the networked supply chain, though mobility, social business, and analytics have a role to play in terms of not just consuming/disseminating data and information but also turning data and information into timely insight.

• We see data generation from any source, both internal and external to the manufacturer, comprehensive and fast analysis, and then ubiquitous consumption (initially with on-premise access as significant but declining over time). If we think of the broader networks, they simply won't work efficiently and effectively without this "information loop."

U.S. Manufacturing Is Resilient, Innovative, Increasingly Digital

written by admin | May 12, 2016

On the eve of the world's largest industrial show, American manufacturers "don't just want to keep up," according to one leader. "They want to be trend-setters." Digitization is playing a big part in that success.

(IW – Raj Batra: 4-18-16) The United States manufacturing sector will have the spotlight at the world's biggest industrial fair, Hannover Messe.

This is the first time since the inaugural German fair in 1947 that the United States was chosen as the partner country — and the timing could not be better. Hannover is a global demonstration of the digitalization of industry that is leading us toward the Industrial Internet of Things and a Fourth Industrial Revolution. And the United States, represented by more than 400 companies, has an opportunity to show that we're ready to embrace this revolution.

America is indeed poised to drive the Industrial Internet of Things forward. With a proven track record in innovation, software development, and university education, we are in a strong position to make rapid progress.

But U.S. manufacturers still have a long road ahead of them. Capital investments have been lagging for some time and our manufacturing infrastructure is becoming obsolete. The technology that we hold in our hands every day bears little resemblance to the 1980s equipment seen in many factories. Even digitally mature manufacturers admit that parts of their operations still rely on PCs with floppy disk drives running DOS.

The IndustryWeek team will be live on the floor in Hannover with news, interviews and analysis. Check out all the stories on IW.com and in the IW Daily Newsletter, delivered to your inbox every weekday morning
And perhaps no one captured the challenges facing U.S. manufacturers better than Gregg Sherrill, Chair of the Board of the National Association of Manufacturers and Chairman and CEO of Tenneco Inc., at the recent Manufacturing in America event, held in Detroit.

"The speed of change," he said, "is not linear. Companies don't just want to keep up; they want to be trend-setters."

To be trend-setters, manufacturers must leverage state-of-the-art industrial hardware and increasingly sophisticated industrial software. But the reality is, the U.S. manufacturing sector has a growing gap — as McKinsey & Company recently put it — between industry's digital "haves," "have nots" and "have mores." While some are boldly setting trends, too many are hesitating and taking a wait-and-see approach to digitalization.

Still, I'm optimistic that U.S. manufacturing will achieve IIoT for three reasons.

First, the benefits of digitalization to both our economy and industry cannot be ignored. According to McKinsey, digitalization offers the United States an opportunity to boost GDP by as much as $2.2 trillion by 2025. For industry, the rewards are not only faster product releases, but increased productivity, reduced downtime, better utilization of assets and materials, and much more flexibility.

Second, modernizing our industrial base means creating better jobs. The world of advanced manufacturing will not run itself. That's why it's incumbent upon industrial players to partner with government and academia to promote a mindset of life-long learning and continuous skill development — especially in science, technology, engineering and math fields, the STEM program. Students gain valuable, real-world experience using the technology that they'll encounter when they enter the manufacturing workforce.

Third, as early adopters demonstrate the benefits of digitalization, more industrial companies, both large and small, will answer the digital call. I've seen incredible progress by the early adopters in our customer base. These manufacturers are in a position to harvest big data and shift more of the design, testing, and engineering phases of production to the virtual world — steps that can facilitate mass customization and cut time to market by up to 50%. This is the essence of IIoT.

U.S. manufacturing has already shown that it's incredibly resilient. We've been battered by headwinds for nearly two years. The rise in the value of the dollar has put incredible pressure on U.S. exports. North America has sustained most of the energy world's layoffs, capex cuts, and rig closures. But we've also seen incredible successes such as 15-year highs in auto sales last year, trillion dollar backlogs in aerospace, and the construction of brand new factories.

Now is the time to build on this momentum — and achieve a real, sustainable manufacturing renaissance — by embracing digitalization. Everyone is starting this journey in a different place, but all are moving toward the same destination: IIoT, and an era in which U.S. industry is more competitive than ever before.

(Raj Batra is president of the Digital Factory Division for Siemens USA, and is

responsible for overseeing all development, marketing, sales, R&D, vertical industry and manufacturing aspects for DF in the United States.)

Look out China, US Manufacturing is Headed for No. 1

written by admin | May 12, 2016

(Industryweek.com 3/31/16) Advanced manufacturing technologies are helping to push the United States back toward being the most competitive manufacturing nation in the world, according to a new survey of global CEOs and other senior executives.

While China is the world's most competitive manufacturing nation, according to the 2016 Global Manufacturing Competitiveness Index developed by Deloitte and the Council on Competitiveness, the U.S., now ranked second, is expected to take the top spot by 2020.

U.S. manufacturers are investing in technologies such as predictive analytics, the Internet of Things (IoT), smart factories, and advanced materials that will be keys to improved competitiveness in the coming years. Other traditional manufacturing powerhouses – Germany, Japan and the United Kingdom – are making similar investments that will maintain or improve their competitive positions.

While technology is a critical factor in future competitiveness, manufacturers rank talent as the most critical driver of competitiveness. Just behind is cost competitiveness and productivity, not surprising given slow growth in most economies, and then supplier network.

What accounts for China's anticipated drop to second in manufacturing competitiveness? Though China has increased its investment in R&D, the economy is slowing and manufacturing activity has dropped, resulting in excess capacity. The

report notes that China's auto industry has capacity utilization of 70% versus nearly 100% in 2009. China also is seeing a rise in labor costs, up five-fold since 2005.

"Concerned by rising labor costs and declining cost arbitrage between advanced economies and China, some companies from advanced economies have moved their production to alternate low-cost nations or back to their home nations," the report states.

Compared to the 2013 survey, U.S. manufacturing executives were more favorable about policies in the country. They cited as helping to create a competitive advantage U.S. policies on sustainability, technology transfer, monetary control, science and innovation, foreign direct investment, intellectual property protection, and safety and health regulation. Working against U.S. manufacturers, said survey respondents, were policies on corporate tax rates, healthcare, labor, and taxation of foreign earnings.

The survey shows two strong regions for manufacturing have emerged. For North America, the United States, Canada and Mexico are all in the top 10 most competitive countries today and will remain so in 2020, executives predict. By 2020, the top 10 is also expected to have five Asia Pacific nations – China, Japan, South Korea, Taiwan and India. India is expected to jump from number 11 in 2016 to number 5 in 2020.

Once growth darlings, the BRIC nations have felt the brakes applied on their economies. Brazil fell from the eighth most competitive nation in 2013 to 29th in 2016. Russia dropped from 28th in 2013 to 32nd in 2016. China and India are expected to remain in the top 10 most competitive nations.

Likely to take an increasingly important role in global manufacturing are the so-called Mighty Five – Malaysia, India, Thailand, Indonesia and Vietnam. "These nations could represent a 'New China' in terms of low cost labor, agile manufacturing capabilities, favorable demographic profiles, market and economic growth," the report stated.

The report concludes that the most competitive manufacturing nations are embracing higher-value manufacturing profiles reflective of Industry 4.0. "In the

wake of this transformation, the days when a country could establish a position of manufacturing dominance on the back of a single point of strength, such as cost competitiveness, are decidedly gone," the report notes. "In fact, leading countries are taking a much more balanced approach to talent, cost competitiveness, and innovation to set themselves apart from the global crowd."

Success Story: IMC Helps FOXPRO Improve Operations and Customer Service with Broadband Grant

written by admin | May 12, 2016

SITUATION

FOXPRO is a small but growing Lewistown, PA based manufacturer of digital game calls, decoys and accessories used in predator hunting. They are the Worldwide Leader in sales of goods within the predator industry.

The company's internal operations and external contacts with customers, partners and vendors were significantly hampered by FOXPRO's 3Mbit DSL Internet service, which was divided into three channels of 1Mbit DLS each. The limited connection was unable to keep up with the company's information technology needs and when it became saturated, operations came to a standstill.

Employees frequently complained they were unable to perform routine job duties and had to wait until other company functions requiring Internet traffic had been accomplished and sufficient bandwidth became available.

Likewise, customers faced lengthy waits to place orders and have credit card information processed, resulting in dropped calls, aborted online transactions and lost business. Customers who succeeded in placing orders but who later called to

check the status of their orders also faced exceptionally long waits as FOXPRO attempted to access the external portals of its shipping partner to determine the status and location of packages.

In addition, an integral component of the company's customer service and marketing efforts involves the uploading of very large data files containing video and audio of animal calls. The company frequently experienced problems when attempting to upload these files to YouTube and other social media sites or send them to customers. Due to insufficient bandwidth, these attempted data exchanges would often crash or take tens of minutes to succeed.

FOXPRO also has an onsite studio in which the company produces a television show for the Outdoor Channel. The company's poor Internet connection affected FOXPRO's ability to download and evaluate clips of audio and video content for potential use on the show and limited the company's ability to view portions of its own program content.

Finally, the company's online banking functions — a significant component of FOXPRO's accounting processes – often required the company to reduce its Internet traffic manually to accommodate these transactions.

SOLUTION

Determined to overcome the obstacle that was stymieing its business, FOXPRO sought information and resources that could resolve the company's bandwidth woes. The company contacted The Mifflin County Industrial Development Corporation (MCIDC) for help and also searched on its own to identify an Internet service provider that could install and deliver the upgraded data connection needed to replace the company's insufficient 3Mbit DSL line.

Once aware of FOXPRO's issues with its Internet service, MDIDC's Rob Postal contacted SEDA-COG and Comcast to determine what solutions may be available to help the company obtain a broadband connection. Unfortunately, Comcast said it was unable to provide the fiber optic line the company needed. FOXPRO's requests for proposals from several other Internet providers resulted in only one company, Nittany Media, indicating it was able to install and deliver the level of service

improvement FOXPRO required. Unfortunately, the $25K, 1Gbit burstable fiber optic solution was cost prohibitive.

SEDA-COG and MCDIC then reached out to other Partnership for Regional Economic Performance (PREP) organizations, including the Innovative Manufacturers Center (IMC) and PennTAP for help. PennTAP provided an Internet assessment of FOXPRO's situation and IMC Business Advisor Dana Gordon used the results of the assessment to develop and submit a Broadband Technical Assistance Mini Grant Program application to the Commonwealth of Pennsylvania's Department of Community and Economic Development (DCED) requesting funds to help offset the cost of the improvement.

DCED approved IMC's grant application on behalf of FOXPRO and provided the company with more than $9,000 toward the effort. IMC also committed $2000 in project funds.

In the fall of 2015, Nittany Media successfully installed and began providing service for an 11,585 foot-long, 1Gbit fiber optic line, which is burstable to 1000 Mbps, for FOXPRO.

RESULTS

As a result of the increased bandwidth:

- FOXPRO's IT department no longer receives complaints about employees being unable to do their jobs due to lack of Internet access and employee productivity has increased.
- The company has experienced a decrease in the number of lost calls – calls employees previously had not been able to answer quickly enough before customers grew weary of waiting and ended their calls.
- The improved voice and data connection will allow FOXPRO to move forward with plans to implement an automated voice-services system for customer calls that will help the company reduce costs.
- FOXPRO is now able to provide faster online credit card approvals for customers, thereby significantly reducing lost and aborted transactions.
- The company can now download and preview short clips of video content

rather than having to wait for the download of much larger, complete files and is able to share more of its video on YouTube and other social media sites.
- The company has been able to retain and begin to grow its customer base. FOXPRO anticipates a modest annual increase in sales of $140K and estimates retained sales of $500,000.
- In the next 12 months, the company projects a cost savings of $50,000, the retention of two jobs and the creation of two additional positions.
- FOXPRO's online banking functions, access to external servers and interactions with its shipping partner are no longer held hostage to insufficient bandwidth.

"In general, everyone has increased their personal productivity," said Nathan Smith, FOXPRO's Director of Information Technology. "We no longer get complaints about the internet speed."

Due to the success of this project, IMC has replicated this model for another small company in an adjacent county and is actively searching for companies that have a need for the same solution.

3D Printing: Customers Taking Charge of the Supply Chain

written by admin | May 12, 2016

The demand economy, when paired with the advent of 3D printing, is a true game changer for the manufacturing industry.

(IW – Michael Gravier: 4-12-16) The demand economy is disrupting every sector and causing those in the supply chain and manufacturing fields to be more innovative than ever before. A decade ago, consumers accepted waiting a week for

their product but now with the infusion of companies such as Amazon and Alibaba, consumers are making their purchase decisions based on how quickly they will receive the product. In order to stay competitive in the marketplace, companies are turning to 3D printing to create their products quicker.

While it is true that manufacturing in certain locations can be low-cost, managing a global logistics network is not, especially as transportation costs continue to rise. That is where the opportunity for 3D printing lies. It is not surprising that analyst firm Canalys anticipates that the worldwide market for 3D printers and its associated materials and services will grow to $20.2 billion by 2019.

Supply chains are about to make a fundamental shift. Where traditionally supply chains followed something like the SCOR model (plan, source, make, deliver, return), 3D printing is innovating that model and putting consumers in the driver's seat.

Make: 3D Printing Means Social Media

Globally, 3D printers seem likely to follow the same trajectory as mobile phones: many countries skipped installing expensive landlines and went directly to mobile technology, which requires less infrastructure investment and is more flexible and easier to upgrade. As with mobile technology, 3D printing means low infrastructure requirements, more mobility, more programmability and more adaptability. This means nearly all of the 95% of world consumers that live outside of the U.S. will eventually access technology superior to our current production systems.

The two technologies—mobile technology and 3D printing—go together. Consumers will demand the ability to use their mobile devices to customize goods with nearly instantaneous delivery, and that means online presence, social media and analytics. Very few manufacturers right now have a social presence, meaning that the 3D printing revolution will likely continue the shift of power toward retailers like Amazon that already have online ordering systems popular with consumers.

Deliver/Return: Rise of the Robots

The 3D printing revolution also means the advance of robots, especially delivery drones and artificial intelligence. The first automated urban drone package delivery happened on March 25th. TraPac LLC's Los Angeles terminal already has two dozen robots moving containers. Even formula racing is starting a Roborace division later this year. In addition to automating repetitive and detail-oriented tasks, robots and drones need less infrastructure and require minimal waste. Reliance on human drivers means having a vehicle big enough to carry the human, at which point investment costs require greater economies of scale by accumulating enough packages to pay for both truck and driver.

Drones can be sized just big enough to transport a package. Self-driving trucks will still require highways, but smaller, airborne drones delivering the "last mile" will mean reduced congestion, faster deliveries, and less expensive infrastructure to maintain—not to mention other benefits like delivery straight to the customer rather than to a physical address.

Source: Gets a Lot Easier

Today's supply chains suffer from global sprawl, with months required to design and source components, and then assemble them into a finished product. Much of the time and expense in supply chains derives from the need to negotiate with and monitor suppliers. All this is made worthwhile due to the benefits of accessing specialization and competitive advantages from around the world.

The specialization and economic benefits of globalization become outdated in a world where a 3D printer and some spools of wire or other generic inputs can make nearly any desired product relatively quickly. Generic inputs require far less negotiation and planning. They also do not become obsolete and the quality is standardized, meaning that there's less need to monitor supplier performance. Since nearly all value is added by the 3D printer and inputs are relatively low value, standardized commodities, Just in Time Inventory (JIT) and other inventory reduction approaches will be needed less.

Plan: The Consumer Takes Charge

3D printing's most amazing impact will be how it puts consumers in charge of the supply chain—and most companies are not ready. The old supply chain reference models put the company in charge of nearly the entire supply chain: developing new product offerings, sourcing all components, overseeing manufacturing and assembly, and finally distributing products to the retail level. The customer only gets to order the product after all the work is done, choosing among available offerings. In this model, companies take a huge gamble on whether and how many of a product they will sell, leading to waste and diminished profitability.

3D printing means a greatly simplified, highly responsive, and infinitely flexible supply chain fulfills the order. In the future supply chain, the customer places the order first, and then a local, highly automated 3D printing shop produces the finished product and then delivers it, often via drones. Rather than plan, source, make, deliver, and return, a future supply chain model will start with the consumer order which will initiate make, deliver and return.

The demand economy is disrupting every sector and when paired with the advent of 3D printing, is a true game changer for the manufacturing industry. It should be a warning sign for companies that if they don't innovate their supply chains, they may become irrelevant as consumers will have more control of the production of their own products.

(Michael Gravier is an associate professor of Marketing and Global Supply Chain Management at Bryant University with a focus on logistics, supply chain management and strategy and international trade.)