Digital Manufacturing is a Growth Sector

written by Lauri Moon | June 6, 2016
American manufacturers are investing heavily in digital technologies, pouring 2.6 percent of their annual revenue into digital systems, according to PwC. That investment "is expected to increase to almost 5 percent of revenue in the next five years, an estimated $350 billion," says the consulting firm.

Venture capital firms have invested $3.6 billion since 2011 in start-ups developing digital technologies for manufacturers. This funding reflects "an increase of nearly 50 percent annually with start-up investment focused on manufacturing software, ERP and inventory software and robotics and sensor technology," states the consultancy.

Of the manufacturing companies that PwC surveyed, adopting digital manufacturing technologies will lower operating costs by at least 11 percent, "mostly through efficiencies gained by automating processes and production."

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Why Good Marketing Photos Are So Important for Industrials

written by Lauri Moon | June 6, 2016
Customers often encounter a business through photographs. Why not make a good impression?

Good Marketing Photos Are Good Marketing

Marketing is all about communicating your value to the customer. Unfortunately, many industrial businesses don't understand the importance of good marketing photos and how the right styling and consistent imagery can help them not only convey quality, but also help them successfully tell their company story and create alignment across their brand.

Read more from *Industrial Marketer*

U.S. Manufacturing Sector Attracting Foreign Investment from Asia, Europe

written by Lauri Moon | June 6, 2016

(Forbes – Ellen Sheng: 5-27-16) The U.S. manufacturing sector, which has been on a decades-long slide, is increasingly attracting foreign capital from Asia and Europe, a recent study found.

The study, which was compiled by seven business schools, found that even though China remains a top manufacturing destination, more companies are shifting production volume to the U.S., rather than moving manufacturing out of the U.S.

Notably, the trend is being driven by foreign companies, mostly from Asia or Europe. The study surveyed senior supply chain executives at 85 of the world's largest manufacturers. The report was put together by The Global Supply Chain Benchmark Consortium, which consists of seven business schools and Avnet, a maker of electronics components.

“Companies are coming to the U.S. for proximity to the U.S. market and technological innovation,” said Shiliang Cui, assistant professor of operations and information management at Georgetown University’s McDonough School of Business

The U.S. is still the largest economy in the world and companies come for market access, he explained. The second reason is for innovation, particularly in research & development as well as manufacturing efficiency and capability.

“When people say reshoring, it means a U.S. firm bringing back manufacturing to the U.S.,” said Cui, *emphasizing that the study didn’t find much evidence of reshoring*. But “manufacturing is on the upwards trajectory here and, at least in our sample, this was brought on by non-U.S. firms,” he said.

Jiangnan Mold Plastic Technology Corp., which makes plastic mold parts for the automotive industry, invested $45 million to set up a 250,000 square foot plant in Greer South Carolina that is expected to be fully operational in the second half of next year.

“This investment in South Carolina and in Spartanburg County will further strengthen Jiangnan’s effort to expand its global leadership role in the plastic molding industry,” Robert Cao, Jiangnan Mold Plastic’s chairman and general manager said in a statement in April.

In other cases, foreign companies buy existing manufacturers. The largest such deal was Haier Group’s $5.4 billion acquisition of General Electric’s appliance business, based in Louisville, Kentucky, earlier this year.

Drawn By Research & Development, Cost Efficiencies

Proximity to the U.S. market as well as R&D, innovation, and design capabilities were key reasons foreign companies wanted to shift manufacturing to the U.S., the survey found.

Increasingly, the U.S. is also attractive from a cost standpoint. China’s rising labor cost is narrowing the difference. Wages in China have risen about 15% a year for the last decade. The low cost of oil and gas as well as high productivity, driven by technology and automation, also makes the U.S. manufacturing sector attractive.

A recent study by Princeton, N.J. consulting firm BLS & Co. and Tractus Asia, an Asia-based foreign direct investment advisory firm, found that median electricity prices for U.S. industrial plants are one-third to half the prices in China while electricity savings in the U.S. can be as much as 70%.

China's unit labor costs are just 4% lower than in the U.S. since wage growth has outpaced productivity growth and the yuan has appreciated, according to Oxford Economics. While manufacturing output per employee in China doubled between 2003 and 2016, *the U.S. remains 80% to 90% more productive*.

U.S. manufacturing may not be in a renaissance yet, but studies are finding increasing interest and signs of a shift.

(Ellen Sheng is a Forbes contributor.)

Manufacturing Unexpectedly Accelerates Amid U.S. Growth Signs

written by Lauri Moon | June 6, 2016

Factories are using a pickup in bookings from the U.S. and abroad to help trim stockpiles, laying the ground for bigger gains in production later in the year.

(IW – Bloomberg: 6-1-16) Signs of better U.S. growth are cropping up, including in manufacturing, which has been a laggard of the economy.

Activity at factories unexpectedly expanded at a faster pace in May, helped by an increase in orders, the Institute for Supply Management reported Wednesday. The Tempe, Ariz.-based group's index climbed to 51.3 from 50.8 in April, while the median forecast in a Bloomberg survey of 81 economists called for 50.3. Readings greater than 50 indicate growth.

Factories are using a pickup in bookings from the U.S. and abroad to help trim stockpiles, laying the ground for bigger gains in production later in the year. The recent stabilization in oil prices also will probably help stem the slump among energy producers that has contributed to weak business investment, and growth this quarter is set to get a boost from household purchases, which posted a better-than-forecast gain in April.

“Manufacturing is starting to look better,” said Scott Brown, chief economist at Raymond James Financial Inc. in St. Petersburg, Florida, who had projected an ISM factory reading of 51.2. “It’s an encouraging sign that things aren’t unraveling. Ultimately, production is going to increase because of stronger consumer demand.”

The new orders gauge was little changed at 55.7 compared with 55.8 in April. A measure of production cooled to 52.6 from 54.2.

Estimates for the manufacturing index in the Bloomberg survey ranged from 49 to 52.

Twelve of 18 industries surveyed by the purchasing managers’ group reported growth in May.

One weak spot was the factory employment measure, which held at 49.2, indicating manufacturers trimmed payrolls last month.

In other signs that the industry is turning around, the index of supplier deliveries jumped to 54.1, the highest level since December 2014, from 49.1. A reading greater than 50 means shipments slowed, which often happens when suppliers have trouble keeping up with demand.

The ISM’s gauge of factory inventories fell to 45 from 45.5. The index has been lower than 50 for almost a year as producers trim the amount of goods on hand.

Right Direction

“Things, for me, are pointing in the right direction,” Bradley Holcomb, chairman of the ISM factory survey, said on a conference call with reporters. With businesses having pared stockpiles and orders picking up, “there’s a bit of an inventory shortage” and “suppliers are now having a harder time catching up so they’re slower.”

The overall tone of the comments from manufacturers in the survey was “cautiously optimistic,” he said.

The report also showed the headwinds from sluggish overseas markets may be dissipating. The index of export orders held at 52.5 in May, marking the third straight month demand from abroad has grown.

Manufacturers also are seeing a pickup in price pressures. The index of prices paid jumped to 63.5, the highest level since June 2011, from the previous month's 59.

The factory survey data follows a report on Tuesday that showed the American consumer came back with a vengeance in April after a sluggish start to the year. *Households increased spending during the month by the most since August 2009, and incomes also grew.*

Frank Demmler: It's not your parents' funding environment

written by admin | June 6, 2016
(By Lee Stabert on May 17, 2016)
FRANK DEMMLER is Vice President of Entrepreneurial Services at Innovation Works (Ben Franklin Technology Partners of Southwestern PA). In his 30-year career, he has worked with over 3,000 entrepreneurial efforts, leading to the formation of over 500 companies. These businesses have gone on to create more than 12,000 jobs and raise more than $2 billion dollars of investment capital.

Frank Demmler

If you're over 40, like me, it seems like the world of investing has turned upside down in recent years. If you're under 40, these changes might seem natural for an increasingly connected world. In either case, the next wave of crowdfunding is poised to present big challenges and bigger incentives for startups and investors alike.

In April 2012, the Jumpstart Our Business Startups (JOBS) Act was passed, creating a legal framework for crowdfunding, replacing laws that had been in existence since 1933. The resulting crowdfunding culture — which has garnered widespread mainstream attention — provides entrepreneurs unprecedented access to a huge pool of potential investors. It’s no surprise then that this trend has given rise to even newer solutions that pull accredited investors into the fold as well.

Today, both laymen and accredited investors have legal, effective ways to support companies they believe in, whether it’s for the personal gain or the public good.

New Incentives for Investment

One fundamental difference between mainstream crowdfunding and traditional fundraising is that the former does not involve the sale of equity in the company. Instead, crowdfunding campaigns often appeal to a social mission or personal interest, offering the investor SWAG ranging from promotional items like coffee mugs to pre-paid orders for in-development products. Platforms like Kickstarter and Indiegogo are now household names, delivering investment opportunities to a larger base of users with less to spend than traditional investors.

Whether it’s a board game or new technology for doctors, startups can now use the general public as a sounding board for their boldest ideas. When Oculus Rift sought investment from accredited investors, the risk appeared too great. When the company shifted gears and ran a Kickstarter campaign, 9,522 backers provided $2,437,429 in funding.

The act of crowdfunding itself provides a wealth of information that traditional investors can use to evaluate the viability of products and services. What better proof is there than customers willing to buy something that doesn’t yet exist?

It also offers traditional, accredited investors a sample of customers who have already used the product; helps demonstrate the company’s ability to produce and deliver on its claims; and provides a sense of how company management performs under pressure. And because crowdfunding campaigns have a fixed duration, they can provide a more predictable timeline to market: If it works, great. If it doesn’t, move on to Plan B.

Investor Matchmaking

The new digital landscape also offers opportunities to traditional, accredited investors. Typically, a website — such as AngelList or IdeaCrossing — will establish itself as a market maker by meeting SEC requirements. These websites have garnered significant coverage in the media as of late; some specialize in specific sectors such as entrepreneurship in emerging nations or social impact startups.

Once an individual is confirmed to be an accredited investor — with annual income over $200,000 and/or a net worth of $1 million, among other requirements — they can register on these sites and connect with companies.

The rise of this model has spawned some interesting trends: Often times, a well-known angel investor will commit dollars to the company, then promote their support of the company to their connections. Ideally, this will result in a wave of additional support. Without such a benefactor, these websites still offer startups significant value through a centralized, digital system that integrates fundraising documents and other key information.

Retail Crowdfunding

Where investor matchmaking services and mainstream platforms fall short, retail crowdfunding may fill in some gaps, allowing unaccredited investors to buy actual stock in emerging companies. These opportunities, unsurprisingly, come with a laundry list of requirements: Companies can only raise up to $1 million. No one individual can invest more than $100,000. Individual investment caps are also placed on individuals at different income levels. To make matters worse, these limitations apply to all private investment, not just the current company's offering.

For technology-based early-stage companies in particular, retail crowdfunding presents complexities and bureaucracy that may stifle its efforts to secure follow-on funding. (It's estimated that it can cost between $50,000 and $100,000 to satisfy these requirements.) For companies that don't anticipate needing more than $1 million in investment annually, retail crowdfunding may prove a viable option.

Ultimately, the new legislation and landscape offer entrepreneurs another way to raise money and build their companies — that's a good thing. But planning, documentation, reporting and communication are poised to become make-or-breaks for startups moving forward. It's a brave new world.

OSHA Finalizes New Workplace Injury Reporting Rule

written by admin | June 6, 2016

(By Paul Clouser on May 11, 2016Posted in Workers' Compensation)

On May 11, 2016, the Occupational Safety and Health Administration ("OSHA") finalized a recordkeeping and reporting rule that will require covered employers to take the additional step of electronically submitting to OSHA, injury and illness information that is required to be maintained under existing OSHA regulations. The rule becomes effective January 1, 2017.

The new electronic submission requirement applies to: (a) employers with 250 or more employers who are currently required to keep OSHA injury and illness records (i.e. OSHA forms 300, 300A and 301) and (b) employers with 20-249 employees in certain industries with historically high rates of occupational industries and illnesses. The electronic submission requirements do not alter the employer's obligation to complete and retain injury and illness records, as before. For illnesses and injuries occurring in 2017, the electronic submission deadline is July 1, 2017.

Believe it or not, OSHA plans to post the injury and illness data it collects on its public website (www.osha.gov). OSHA has indicated that it will remove any personally identifiable information ("PII") before making the data available to the public. States that operate their own job safety and health programs (i.e. OSHA state plans) must adopt requirements that are substantially identical to the new rule within six (6) months.

The new requirements introduce a public watchdog role. Apparently, this role is being added in response to the near doubling of the number of workplaces in the U.S. from 1981 to the present, and the corresponding decrease in the ratio of OSHA inspectors, to one per 4300 workplaces (according to a study by the Center for Effective Government).

The rule also bars employers from retaliating against workers for reporting workplace injuries and incidents, thereby creating a supplemental avenue for disgruntled workers who are inclined to pursue a wrongful discharge cause of action, in addition to more traditional workers' compensation claims, for alleged workplace injuries.

The net effect of the rule may be to spur additional employment lawsuits, by making it easier for plaintiff lawyers to mine for accident information.

We will keep you apprised as to further developments, but in the interim, please feel free to contact any member of our Labor and Employment Group, with questions or concerns.

DOL Releases Updated FMLA Materials

written by admin | June 6, 2016
(By Joe Sileo on May 18, 2016Posted in Employer Liability)
The United States Department of Labor (DOL) recently issued a new Family and Medical Leave Act (FMLA) poster. Employers who are covered by the FMLA are required to display a DOL-prepared poster advising employees and applicants of the major provisions of the Act.
According to the DOL, for now an employer has the choice to continue to use the prior version of the poster (dated February 2013) or to use the new poster (dated April 2016). Even so, use of the new poster is recommended because it is better organized and more user-friendly. It is also generally advisable for employers to use the most current version of required postings. The new poster can be found here, free of charge.

In addition to the new poster, the DOL has also issued a new Employer's Guide to the FMLA. The guide is intended to provide employers with information concerning their obligations and options for administering FMLA leave. The guide is available here for free download.

Sustainability Goals in the Supply Chain

written by admin | June 6, 2016

More companies have moved beyond paying lip service to sustainability to embracing it and tracking its return on investment.

(Supply Chain Management Review – Jim Barnes and Bob Trebilcock: 5-16-16)
Why are more companies embracing the principle of sustainability? What prompted them to move from merely paying it lip service as something "nice to do" to formulating new accounting line items to track its return on investment? At the Institute for Supply Management, we believe companies made the change because they realized sustainability goals are:

- Necessary because consumers are demanding attention be paid to sustainability and the government is regulating efforts to uphold it.
- Prudent because they can help save millions of dollars.
- Crucial to protect the environment for future generations.

According to the Environmental Protection Agency, "Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations."

We're seeing many companies build sustainability goals into their supply management objectives. Equally important, they expect their suppliers to do the same. Some of the leaders in this effort are:

- **Pepsi-Cola**: as part of its “Water Stewardship” Program, it’s reducing the amount of water to produce soft drinks from about three gallons per bottle of soda to less than two gallons per bottle.
- **Subaru**: its commitment to be “America’s first ‘Zero Landfill’ automaker” by recycling or reusing all its waste products is making it a favorite of millennials as they shop for cars.
- **Repurposed Materials**: this company turns one company’s would-be trash into another company’s useful product and as a result, has seen its operation grow from one site in Denver to four more in Atlanta, Philadelphia, Chicago and Dallas.
- **Packaging company Sonoco**: it operates by the statement “Every day, we commit ourselves to the singular notion that smart packaging is more than plastics, cardboard, and paper – it’s a promise to people, products and our planet,” and expects its suppliers to as well.

As we’ve talked to companies like those four and other leading authorities on sustainability efforts, we’ve garnered four best practices procurement professionals should consider to successfully incorporate sustainability goals into their supply management objectives.

The first best practice is *adopting specific reporting methods* that will demonstrate a company is paying much more than just lip service to sustainability efforts, including:

- Fact-based reporting;
- Tracking greenhouse gas emissions data; and
- Triple bottom line (TBL) accounting of economic, environmental and social impact.

Gathering and reporting this type of data provides benchmarks to keep internal efforts on track toward achieving sustainability goals. It also can be reported out to critical audiences such as consumers and regulators.

The second best practice we’ve found among successful companies is that they *conduct Life Cycle Assessments* (LCA) to determine the environmental impact of their products or services from cradle to grave. These impacts include "the extraction of raw materials; the processing, manufacturing and fabrication of the product; the transportation or distribution of the product to the consumer; the use of the product by the consumer; and the disposal or recovery of the product after its useful life," according to Tellus Institute, a not-for-profit research and policy institute that is a leader in the field of sustainable development.

The third best practice of successful companies is *adherence to ISO 14000 environmental management standards* to systematize and improve environmental management efforts.

Finally, we've found the fourth best practice is *following the Five Level Framework* – a model for planning in complex systems – to organize thinking and information to be more clear and strategic in the move toward sustainability. The Framework was developed by scientist Karl-Henrik Robert to set out the system conditions for the sustainability of human activities on earth.

The Five Level Framework consists of:

- Ascertaining the scope of the system
- Defining success
- Setting strategy
- Determining actions to take
- Identifying the tools to use

One of the significant advantages of working through the Five Level Framework is that it enables procurement professionals to think beyond their own company and look at their suppliers as well.

The more companies that pursue sustainability, the more successful each one will be in achieving business goals and protecting the environment. If companies pursue sustainability on a one-off basis, the impact will be small, but if they push it upstream to their suppliers, the network effect will be great.

(Jim Barnes is the Managing Director of ISM Services. Bob Trebilcock is editorial director of Supply Chain Management Review and also Executive Editor of Modern

Materials Handling.)

6th Annual Pennsylvania Energy Management Conference

written by admin | June 6, 2016

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Manufacturers' Injury and Illness Records to go Public

written by admin | June 6, 2016

The Occupational Safety and Health Administration (OSHA) has just released its "Improve Tracking of Workplace Injuries and Illnesses" final rule. It will require businesses with 250 or more employees per facility to electronically report to the agency annually all of the company's injury and illness logs for that year starting in 2017. Companies with 20–249 employees per facility in "designated industries" (manufacturing is one) will also have to report annually.

While the agency states it will not report any specific employee information, as stated in the rule, "OSHA intends to post the establishment-specific injury and illness data it collects under this final rule on its public Web site at www.osha.gov," which means each company's record will be available for public consumption. Furthermore, OSHA's press statement states: "Access to injury data will also help OSHA better target our compliance assistance and enforcement resources at establishments where workers are at greatest risk and enable 'big data' researchers to apply their skills to making workplaces safer."

The administration put a target on nearly every company and manufacturer in the United States. Manufacturers are supportive of regulations aimed at increasing transparency and are proud of creating safe workplaces for the men and women who make things in America. However, this regulation will lead to the unfair and unnecessary public shaming of businesses. This is a misguided attempt at transparency that sacrifices employee and employer privacy, allows for distribution of proprietary information and creates burdens for all manufacturers.

The NAM will look at all options to protect manufacturers from this certain threat to the modern shop floor.