INVENTORY COUNTS

WALL EINHORN & CHERNITZER P.C.
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What are the manufacturing trends of 2015?

Trends in manufacturing for 2015 can be summarized in two words: connection and communication.

Companies are leveraging technology to enhance production and customer service, and the on-shoring trend (also called next-shoring) appears to be gaining momentum.

Many aspects of the manufacturing process have become automated, and the next wave is poised to affect financial management.

Three-fourths of finance executives responding to a recent study believe that "SMAC" will change the structure and operation of finance departments, according to a report by technology company Oracle. SMAC is an acronym for a cluster of new technologies: social, mobile, analytics and cloud.

The rising use of social media platforms and mobile devices in conducting business has provided an unprecedented opportunity to almost instantly gather data from a variety of sources.

The question is how to use that data to optimize operations and profits. This is where analytics step forward as a key function in up-to-the-minute performance measurement against benchmarks.

The study revealed that 40 percent of executives forecast only three months ahead, and 93 percent are still relying on spreadsheets.

In addition, the bulk of resources are still devoted to daily operations. Advanced technologies improve efficiency, thereby allowing staff to concentrate on responsive, proactive financial management.

Computing in the cloud means that companies tap remote software on servers to perform functions. Companies offering these services cite a corresponding reduction in company-based equipment and software costs as a major benefit.

However, privacy concerns are hindering the adoption of public cloud technology, with 82 percent of executives reporting security as an issue.

Despite this perceived drawback, information technology research leader Gartner believes the bulk of new IT spending by 2016 will be cloud-based, most of it either private or hybrid (a mix of public and private).

SMAC also refers to the meteoric rise of social media as a consumer communication tool.

With a few keystrokes, a dissatisfied customer can broadcast complaints worldwide. This can result in a public relations disaster, as some companies have found to their chagrin.

Conversely, social media can be regarded as an opportunity to

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A financial and management bulletin to manufacturers from:

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R&D credit ... *and other extenders that help manufacturers*

Thomas Edison made 1,000 attempts before he successfully created the light bulb. That seemingly small item transformed our standard of living and led to tens of thousands of other new products.

Perhaps the process would have been faster if Edison's efforts had been supported. The legendary inventor began in poverty and created his first innovations after working 12-hour days.

With a desire to foster potential breakthrough inventions through research and development, the U.S. government instituted the R&D tax credit in 1981. The provision was renewed in late 2014 for use in that tax year.

Congress has extended the R&D credit 15 times since 1981. Manufacturing groups are lobbying for permanent enactment rather than yearly extensions.

Since it is a credit, this provision allows a portion of qualified costs to be deducted from federal and state taxes owed. For those with partnerships or LLCs, this credit flows through to the personal return. Form 6765 is used to claim and calculate the credit.

Small companies often don't claim this credit, perhaps believing wrongly that they must have a separate R&D department. Improvements in products and processes are allowed, as well as new inventions. To qualify, activity is subject to a four-part test:

- **Technical uncertainty** – Uncertainty about how to best improve or create the new process or product must exist, hence the research component.
- **Process of experimentation** – A series of tests designed to discover the optimal result must be used.
- **Technological in nature** – The process must involve the so-called hard sciences of engineering, physical or biological science, or computer science.
- **New or improved business component** – Mindful of the cost to taxpayers, the activity must result in a new or improved invention, formula, product, process, technique or software.

Since processes qualify for the credit, many companies are probably engaging in activity that can be claimed. For example, they may be evaluating new materials, modifying production lines or developing new facilities.

Another misconception is that startups and companies with little revenue or losses don't qualify. Yes, you must show a profit to be able to use the credit, but there is a 20-year carry forward period. That means R&D today can reduce your liability years into the future.

Many people also regard R&D as the province of laboratories and huge factories. In reality, industries not considered especially high-tech are also candidates for credits. These include dairy farming, brewing, construction and poultry.

To use the credit, companies must capture and document R&D activities and costs. The simplest method of calculating the credit is the alternative simplified credit method (ASC), which averages three years of expenses. This requires going back three years to calculate a basis for the credit.

Allowable costs include wages, supplies, computer lease or rental and some contractor expenses. The work must be performed in the United States to qualify.

About 70 percent of the credit is used for wages paid to highly skilled R&D workers. Proponents believe the credit helps the United States stay competitive and creates high-quality jobs.

Another tax provision renewed in 2014 is the Section 179 deduction, which allows accelerated first-year depreciation on purchases of equipment, machinery, office furniture, qualified vehicles, computers and software.

In the 2014 tax year, this means up to $500,000 can be written off as an expense, as long as the purchase is put into use during the calendar year.

The rules are especially strict relating to vehicles. The vehicle must be used the majority of the time for business purposes. The deduction for a passenger vehicle is minimal – according to the IRS, less than $2,000 for an automobile used 60 percent of the time for business.

In general, the property must be used at least 51 percent of the time for business purposes. If you spend more than $2 million in one year, then the amount you can claim with Section 179 is reduced.

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The Work Opportunity Tax Credit (WOTC) was also renewed in 2014. The WOTC provides an incentive for businesses to hire certain targeted groups. These include recipients of Temporary Assistance for Needy Families (TANF), food stamps or Social Security supplemental benefits, ex-felons, certain youths and veterans.

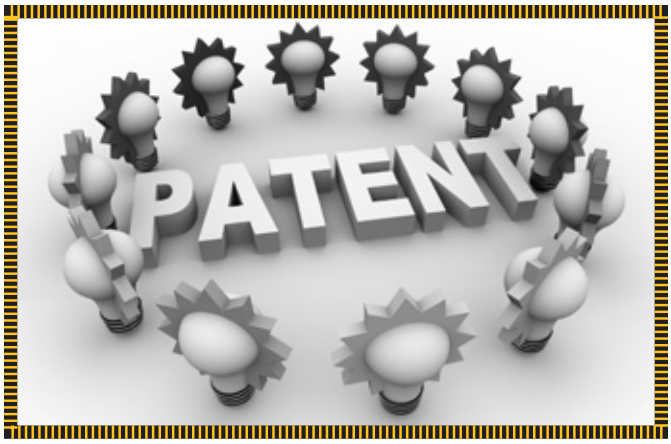
Upon hiring a qualified person, a notice must be filed with your state's work force agency. The size of the credit depends on the group hired as well as length and total hours of employment.

Currently, employees who are veterans or long-term TANF recipients qualify for the largest credits, up to $9,600 and $9,000, respectively.

Patent infringement continues to plague inventors

The American patent system is the underpinning of our economy.

Since the early 1800s, the ability to create, register and benefit from an original idea has produced innumerable businesses, jobs and wealth. In 2014 alone, more than 8.6 million patents were filed, with each guaranteeing exclusive use for 20 years.



Why then is patent reform such a hot-button topic?

The answer lies in another important aspect of patent law – the ability to protect one's intellectual property from infringement.

Patents can be shared with permission by the holder, usually through licensing agreements that allow the licensee to manufacture products using proprietary technologies and designs.

For example, an inventor may not plan to manufacture an item or material but will make it available to companies that can use it in their products. Considered tangible property, patents can also be mortgaged, sold or passed to heirs.

With recent success stories of patents like Lipitor generating over $100 billion in revenues, there's no argument that patents need protection. Patents can generate new revenues for decades, and the success of many companies depends on them. Loss of patent status can cause bankruptcy and failure.

The scope of a patent is defined in the filing, and infringement arises when another party manufactures, uses or sells the patented technology. This is why obtaining a patent is not a simple process and involves searching existing and pending patents to ensure that the new one won't infringe another.

Holders who discover someone is apparently infringing on their patent, can sue in federal court. If found guilty, the infringer may have to pay monetary damages and stop using the technology. Sometimes a licensing agreement can be reached.

With a legal system that appears to have worked well for almost 200 years, why the current focus on reform?

As with any endeavor or industry that generates enormous amounts of money, companies with valuable patents are being targeted. Cases of claimed patent infringement have skyrocketed, with two-thirds of cases in 2013 filed by non-practicing entities.

Although some non-practicing entities are perfectly legitimate – including individual inventors, university labs and development firms – the term has also come to encompass those called by a less complimentary term: patent trolls.

Patent trolls, also known as patent assertion entities, make a practice of filing frivolous lawsuits against companies. Although recognized as a form of extortion, so far trolls have merely exploited loopholes in the patent laws.

The key issues include:

- **Lack of detail in initial filing** – The lack of a requirement regarding specifics about the asserted infringement allows many meritless suits to proceed to the next stage.
- **Broad patent claims** – The easiest patents to assert infringement against have broad language that can be further expanded to cover the litigant's case. Many of these claims are in certain industries such as software and e-commerce.
- **Shell company suits** – Many of these claims are filed by attorneys or shell companies with unavailable ownership information.
- **Venue-shopping** – Trolls choose courts and jurisdictions that are friendlier to plaintiffs.
- **Blanket lawsuits** – Trolls sue everyone, including end-users and retailers, instead of just going after the manufacturer. This tactic increases pressure on the patent holder to settle to end the damage caused by widespread litigation. Some small-end users also pay to settle since they can't afford protracted court battles.
- **Discovery process** – Both sides can ask for supporting documents, called discovery, but this process is often to the detriment of the defendant. Trolls use the company's documents to build their own case.
- **Fee recovery** – Forcing frivolous litigants to pay the defendant's legal fees is considered a primary deterrent, but current laws aren't evenly enforced.

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Another problem in tandem with the explosion in lawsuits is the enormous number of broad and false patents filed by trolls. Any reform needs to tighten the approval procedure to eliminate patents filed purely for the intention of suing other patent holders.

Although a patent reform bill was passed in 2011 – the America Invents Act – provisions weren't toothy enough to stem abuse.

Since that law passed, trolls stepped up their activity especially in targeting non-manufacturing businesses. The impact on these other groups has actually resulted in more pressure to truly eliminate loopholes and discourage meritless suits.

Rep. Bob Goodlatte, chairman of the House Judiciary Committee, has stated his commitment to work with the House and Senate to pass meaningful reforms in 2015.

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Manufacturing trends of 2015 *continued from front*

directly reach and influence customers. Like any marketing strategy, social media must be planned and implemented carefully and consistently.

Social media messages convey a personality, and the best campaigns reflect the company's values and desired marketplace position. The interactive nature of social media gives it unique advantages over other forms of marketing.

First, problems can be resolved quickly and publicly, further boosting credibility with customers. Second, its interactive nature fosters engagement and relationship building, both of which can increase customer loyalty.

Another growing trend is the so-called Internet of Things, or IoT. IoT refers to the communication sensors now embedded in appliances, personal items, house systems, vehicles and electronics. Cheaper bandwidth and greater connectivity have accelerated the growth of IoT.

Manufacturing companies can use this technology internally to improve equipment and processing monitoring. In 2013, the American Society for Quality found that only 13 percent of companies are using smart manufacturing, including IoT, but 82 percent of those who do reported increased efficiency.

While production companies have been using sensors and automated processes for decades, the IoT offers the next generation of integrated technology to improve output while reducing costs, errors and downtime.

Companies can also use data from IoT devices to improve product performance and customer service. Monitoring appliances from a distance, for example, can allow adjustment of settings to improve performance or reveal product flaws or necessary upgrades. Maintenance can be tied to the product's performance in its actual environment rather than by scheduled hours of use.

The next-shoring movement is growing, which is good news for American jobs.

An annual survey by the Boston Consulting Group revealed in 2014 that 54 percent of executives from billion-dollar companies are considering an on-shore move, and 16 percent are implementing one.

Off-shoring built momentum in the 1990s when companies moved production overseas due in large part to cheaper labor costs. That advantage eroded in recent years as other countries enacted minimum wage standards.

Transportation costs, logistics, and raw materials supply and delivery also affect the viability of distant production.

Proximity to customers is a benefit, resulting in lower transportation costs and better customer service. Access to a talented American work force and payoffs from investing in automated manufacturing technologies are also driving the trend.

Inventory Counts

The technical information in this newsletter is necessarily brief. No final conclusion on these topics should be drawn without further review and consultation.

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