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THE ADVISOR
Helping Manufacturers In Northwest Pennsylvania SUCCEED.

New Game Changer
by Bob Zaruta, President/CEO, NWIRC

I’ve noted several times before in my column the cliché ‘knowledge is power’, especially when it comes to advanced manufacturing technology. Technology all around us on a personal level is advancing so quickly it’s hard to keep up.

It seems when you purchase a new product, it soon becomes outdated—from televisions and cell phones to cars and kitchen appliances. Advancements in technology is also happening quickly in manufacturing and to be competitive, it’s important to stay current.

To help you get up-to-date, there’s a large educational conference and expo coming to the backyard of northwestern PA manufacturers. The Manufacturing & Technology Expo, an Industry Week event, coins itself this year as the ‘new game changer’. Their event descriptor is “the one-stop experience that brings together manufacturing decision makers, from design to delivery, and keeps them at the forefront of manufacturing’s digital transformation”. I’m sure many of you have attended the show as it moves across the county each year, but with the event in Pittsburgh on April 1-3, it’s an easy opportunity to learn more about the latest in advanced manufacturing technologies.

Not only will the event feature workshops and speakers on IoT (internet of things), factory automation, and robotics, but also on other burning issues such as supply chain, operational excellence, and talent. Some of the programs are on topics that NWIRC business advisors help manufacturers with throughout the year, such as company culture, continuous improvement, and kata.

Check out details about their workshops, expo hall exhibitors, and plant tours at www.mfgtechshow.com. We are able to pass along a special $400 discount to companies in our region, so if you’re planning to attend, use the code NWIRC400 when registering. I wanted to give this event a special shout-out because of the opportunity for our regional manufacturers to gain more ‘power’.

Turn Big Needs into Big Profits
by Desiree Schnoor, Virtual QE

If you are a manufacturing company, we would guess that one of your biggest problems fall into one of these areas: labor availability, training, production, or audits. It might be inconceivable to think that these same problems could be turned from money wasters into your biggest profit-making areas. This might be especially true considering how much time, energy and money has been used at attempting to find solutions to these problems. Video Work Instructions to the rescue!

Let’s take a look at how implementing Video Work Instructions can transform your old ways of “doing” labor availability, training, production, or audits, which wasted money, to new methods that will help you save or make money.

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Labor availability is the leading problem facing manufacturers today. Forget about the limited labor pool of qualified applicants, how much you have to pay the qualified applicants you can find, not being able to fill workstations, and worrying about your most experienced technicians’ upcoming retirements. Video work instructions are the one simple solution to all of those issues by providing a revolutionary way to close the skills gap from the “other side”. Tradition says qualified, skilled workers do highly skilled tasks, but video instructions automatically allow anyone to perform high-skilled tasks, eliminating the need to be able to find, pay and keep highly skilled technicians, while maintaining quality, standardization and tribal knowledge.

Training new and existing employees is usually costly and takes a long time. Video significantly reduces training time and increases training effectiveness. It also makes identifying and implementing cross training opportunities for employees seamless. Video brings new meaning to job flexibility by quickly allowing employees to train on new tasks much quicker and effectively than long hours of learning from an expert. Video Work Instructions are launching continuous improvement opportunities and job satisfaction, while reducing turnover.

Production improvements can be seen almost immediately upon implementing video work instructions. Drastic increases in quality and yield save you time and money, as do reductions in waste and having to correct defective parts. With full workstations and workers who can perform multiple tasks, work is faster and standardized. You will find yourself being able to qualify for and bid more and new jobs.

While no one enjoys the auditing process, using video work instructions makes compliance easier since video is document controlled. Keeping your documents up to date with current updates and revisions is also much easier with video.

There are many effects of revamping the biggest money wasters into money makers with Video Work Instructions. Your company can reduce spending by reducing what and how much is outsourced, reducing payroll costs, waste and defects, so you have more to spend on growing your business in new ways.

Improvements in the ways above may also give you a new presence and competitive advantage with both new and existing customers and employees. Internally, prospective employees will be drawn by new training methods and work instructions. And not only will you be producing work better and faster, for your customers, but you will be able to establish yourself as an industry leader, which may lead to better customer satisfaction, loyalty and ultimately more money.

**Side Note:** NWIRC is offering a two-part ‘Video Work Instruction Workshop’ (March 29 and April 5). As part of the workshop, you will receive video camera glasses and coaching to create your own work instruction video for a task or job you identify. The final product is a video work instruction you can start using for training. Call us for more information or to register at (814) 217-6067. **You can also join us for an informational webinar on February 26. Find details for the webinar or workshop at: www.nwirc.org/events.**

### Lean Accounting Expert Returns to the Region

NWIRC is excited to bring lean accounting expert, Jean Cunningham, back to northwestern Pennsylvania in April to offer her signature training. Jean is the author of Real Numbers and, her most recent book, The Value Add Accountant. She is widely recognized as a pioneer of Lean Business Management having led her companies and client companies through the Lean transition into non-production functions since the early 90’s.

If your company has embarked on applying lean thinking and practices, you may not have thought about the role of management reporting information and the accounting team in supporting this transformation. Jean will be teaching two classes on this topic.

On April 17 (8:30am-4:30pm), during the one-day Lean Accounting workshop, Jean will share with you her experience and insights regarding 1) five sources of financial improvement with lean; 2) improving cost management reporting to improve usefulness while simplifying at the same time; 3) utilizing information in the accounting records to help identify upstream process improvement opportunities; 4) using metrics for performance monitoring; 5) applying lean concepts to reduce waste in accounting operations, and more.

The following day, April 18 (8:30am-4:30pm), she will teach Lean Accounting: Deeper Dive. This class will take a more in-depth look at ‘Accounting for Lean’, including changing

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your financial statements so they can be understood by non-financial personnel) and to reflect your lean efforts, and how to implement.

Both classes are eligible for 8 CPE credits. Class size is limited, so please be sure to register early. More information and registration is at www.nwirc.org/events.

**Lean Versus ERP: Are You Gaining From Both?**

*By Gerry Schneggenburger, NWIRC*

Is your business reliant on an ERP/MRP system to automate or reduce work-in-process costs and durations? If so, you may want to reconsider your use of IT systems versus custom-built logic made specifically for your type of operations and product lines.

Lean continuous improvement is well known for its system of ‘pulls’, like Kanban, and results in the reduction or elimination of ongoing work, plus it represents a more decentralized and participatory approach to production (Fig.1).

On the other hand, ERP [Enterprise Resource Planning] systems are known as ‘push’ systems whereby production is triggered based on due dates of customer orders or desired restocking to inventory levels. ERP managed production is well suited to a mixed product line, infrequent orders, or custom work¹. (Fig.2)

While it’s true most recognized ERP systems currently adopt lean principles, in reality it’s impossible that a one-size-fits-all approach can materially impact your business. Why? Because Value Stream Mapping and other lean-related activity are custom developed for your product line(s), for your equipment, for your cells – and it’s rare that any two operations are exactly the same.

So how can your firm develop an optimal mix? Research findings¹ show the benefits of ERP systems can be attributed to quality process improvement activities prior to IT implementation. In other words, adapt your ERP system to match your optimized production system based on lean principles and design.

ERP systems contribute the highest value by automating data and paper flow while providing visibility to pertinent processes. Some manufacturers go so far as to relegate their ERP systems only to processing of orders outside the plant [i.e. customers and suppliers]; all other production aspects are based on lean principles with custom applications or processes².

To move your business forward, if you think your production processes are out of balance, consider:

1. Having a lean continuous improvement expert Value Stream Map a production line of concern;
2. Within an improvement team process, ensure a designated IT professional who can affect ERP changes is an active team member [they’ll see firsthand the identified production issues, the future desired state, and develop IT requirements and processes to accommodate]; and
3. As with any operational initiative, a lean continuous improvement cultural mindset is required by leadership and must be continuously pursued.

If you’d like more information, perspective, or IT systems assistance, don’t hesitate to contact your NWIRC Business Advisor.

*Gerry Schneggenburger has 30 years of executive business management experience with an IT foundation of systems development, programming, database administration, systems network engineering, and IT lean continuous improvement.*

*Sources:*

¹ Radboud Universiteit Nijmegen, Supporting Lean Transformation with IT, by Samiaji Alief Kayadi, August 2018
² Industry Week, Can Lean and ERP Work Together?, by Doug Bartholomew, Apr 12, 2012
³ Kenitra Ibn Tofail University, Lean ERP: A Hybrid Approach to Push/Pull, by Drrs. Houti, Abbadi, and Abouabdellah, May 2016

**Going to the M&T Show in Pittsburgh?**

Use code NWIRC400 to get a $400 discount on your pass.
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor (SBA):

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UPCOMING EVENTS

Generational Diversity as a Competitive Advantage  
Feb 12  
Location: Erie  
Take advantage of each generation’s abilities and incorporate into business operations. Learn events and trends that shape each generation, their traits and strengths, techniques to to create a diverse workplace, and more.

OSHA Compliance and Injury Prevention  
Feb 19  
Location: St Marys  
The purpose of this OSHA and Injury Prevention class is to help prepare organizations dealing with the complex area of regulatory compliance, injury prevention, and business liability. This course will pack a comprehensive scope of subject matter into a one day session for the busy professional.

ISO 9001:2015 Internal Auditor  
Feb 26-28  
Location: Erie  
This 3-day course provides a detailed review of ISO 9001:2015 quality standard, including the most recent changes. Participants will learn how to conduct an audit, write the audit report, take corrective actions, and more.

Engage and Equip Your Team with Kata  
March 12-13  
Location: Erie  
The focus of this 2-day training is Improvement and Coaching Kata- a pattern of scientific-thinking used to achieve goals and challenges turning employees into problem-solvers. Participants also receive a 2-hour post-workshop coaching session onsite at their facility.

For more information or to register for training, visit www.nwirc.org