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The pandemic is making work harder—so make workforce productivity easier

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From consumer-packaged goods to heavy industrial production, COVID-19 has hit manufacturers particularly hard. Many simply don't have the option of working remotely, and they've been plagued by shortages and bottlenecks across the spectrum, from supply chain to production to distribution.

Of course, the health and safety of personnel is paramount, but staff shortages make it extremely hard to keep up with production demand. Absenteeism and turnover are higher than ever, jeopardizing on-time delivery and risking future business. When you don't know who will show up for work each day, it's almost impossible to reach productivity and revenue targets.

Dploy Solutions' Ken Koenemann

So, how can manufacturers overcome staffing deficits without overwhelming the staff that is on the job?

Here are five ways digital-manufacturing solutions can help:

1)   Establish clear standards for task completion and validating work. Despite staff shortages, now is definitely not the time to let quality issues rear their ugly heads. With economic uncertainty still a major issue, no company can afford to lose business over quality issues because staff are overworked or undertrained.

Using digital manufacturing solutions to build a digital playbook of standard work templates and instructions can help capture institutional knowledge and establish baseline procedures and expectations to ensure quality standards are baked into the process. Tools like automated video and task-structure analysis can monitor work in progress, validate performance and help turn this into a process template to measure adherence to the baseline.

2)   Automate onboarding and training. When absenteeism and turnover become a problem, it's imperative to maximize the resources you do have and implement a system to get more of those resources on the job ASAP.

Start by conducting a thorough inventory of skills across the organization to identify who can do what specific tasks or fill specific roles. Then, determine whether your current training programs align with any deficits you identify and make adjustments as necessary.

Next, invest in digital training solutions that give staff access to learning modules that build skills anytime, anywhere—during break times or even after hours at home. Incorporate factory video-analytics recordings of work in process to demonstrate proper procedures. And for staff who are on mandatory quarantine because of an asymptomatic positive COVID-19 test or direct exposure but with no illness, utilize this downtime for remote coaching, upskilling and cross-training. This is a great opportunity to develop skills so that you can shift staff around to cover any deficits once they're cleared to return to work.

3)   Adopt a KPI strategy. It's nearly impossible to set and achieve realistic production goals if you don't know what's really happening on the factory floor. Adopting a Key Performance Indicator (KPI) management software can help you to establish benchmarks that tie directly to stated business outcomes. With a KPI solution in place, you can monitor production indicators in real time and provide clear visibility to staff so they can see when dips occur that indicate operational issues.

By tracking KPIs in tandem with workforce stats like absenteeism, along with productivity and quality assurance, factory-floor managers can identify issues and their root causes. And, with a documented, data-driven KPI approach, this also provides objective, empirical evidence, instead of relying on subjective, anecdotal observations that often meet with resistance or tension.

4)   Measure and monitor workflow. Implementing a workflow-analytics solution can identify baseline productivity and establish a digital thread of data. Instead of relying on manual reporting—the widget welder says she can weld two widgets per minute—a digital system can actually track widget-welding efficiency in real-time.

When issues in output arise, this digital data can serve two purposes:

- It can help identify the root cause of hiccup, which could be two or three steps earlier in the production process than you originally thought

- It can enable modeling and simulation of potential solutions, so that you can understand results before you commit to change. For example, with digital simulations you can see the implications of rebalancing work across facilities or altering shifts, to avoid changes that might make things worse.

5)   Automate processes. With pandemic health concerns and restrictions, families struggling to manage remote learning at home, and concerns about job security, employees are facing a lot of challenges right now. Burnout can drive morale and motivation into the ground, not to mention cause stress that can contribute to absenteeism and turnover. When employees are overwhelmed, attention to detail and quality issues can also become a problem, which can jeopardize future business.

Lighten the load for your staff by automating processes wherever possible to reduce workloads and work around personnel shortages. Implementing IIoT equipment-monitoring solutions can help reduce staff resources needed to monitor equipment. Deploying a system for automated digital workflows—for maintenance requests and task tracking, for example—can also help to alleviate redundant and time-consuming processes that hold up production.

While staff shortages might be inevitable, particularly during a global pandemic, digital technology can provide front-line managers and those in high-level strategic roles with insights and solutions to address these challenges.

Now is the time to adopt digital-manufacturing solutions that can help your company reduce the impact of staff shortages, optimize worker productivity and keep business on track.