How Real-Time Data Drives Better Decisions and Increases Productivity on the Manufacturing Floor
In fashion and soft goods manufacturing, effective workforce management is key to meeting customer expectations. Whether a brand operates its own manufacturing facilities or contracts with third-party manufacturers (3PMs), customer relationships are built on keeping a promise to deliver the right products at the right time and the right price. Most work in a sewing operation is manual, so it is easy to see how labor productivity and performance directly impact product cost, quality, and availability. Unfortunately, the majority of fashion and home goods brands lack real-time visibility into their manufacturing operations.

Most manufacturing facilities track work in progress (WIP) by hand, walking the production floor, counting orders and updating spreadsheets or job boards. Some record WIP using gum sheets in a production book and transfer the data into a legacy ERP system or an Excel spreadsheet. Today, there is a much more efficient way to manage production and the manufacturing workforce by leveraging an automated, real-time Shopfloor Control and Manufacturing Execution System (MES).

What is Shopfloor Control?

Information gathered and recorded manually does not provide manufacturers with insights needed to make adjustments mid-shift or mid-production order. Shopfloor Control MES software tracks the progress of production throughout sewing operation, giving supervisors, managers and workers real-time information and notifications regarding WIP, including many aspects of workforce management such as employee productivity, labor costs, and pay rates.
Increase Production Through Efficient Tracking

When Shopfloor Control MES is used, employees can scan barcodes on pieces or garments rather than writing everything down in a notebook or using gum sheets. This results in an immediate efficiency improvement, along with enhanced decision-making capabilities. Shopfloor Control MES enables sewing operations to experience productivity gains from 11% to more than 40%.

Extra productivity translates easily into higher profitability. In a large corporation producing 100 million pieces per year, even the minimum 11% productivity gain would result in 11 million extra sewn products to sell each year—without any additional labor required.

“Shopfloor is amazing! The interface is so clean and clear that it is easy to implement and adopt. Even the less tech savvy operators have embraced SFC easily and enjoy using it, which has translated into higher job satisfaction and increased productivity, so much so that Grand Forest achieved a 10% increase in productivity in the first month alone.”

Carrie Bovender, CEO, Grand Forest

Ease Worker Anxiety About Pay Rate Plans

Some manufacturers pay operators an hourly base rate plus a piece rate while others pay exclusively by the piece. An industry study of thousands of garment workers around the world discovered that operators with combined hourly/piece pay had more anxiety at work than peers paid solely by a piece rate. The study’s lead author noted that “workers who are on a combination of pay types are concerned by the variability of their wages and the lack of transparency in how their wages are put together.”

Manufacturers can relieve anxiety about pay by implementing Shopfloor Control. It gives operators unprecedented pay transparency by displaying updating counts for how many pieces they have sewn and displaying the piece rate, any bonuses, and the total pay for the shift. “It’s helping us be faster and more accurate with everything we’re doing right now... Instant feedback motivates workers to achieve higher performance levels” says Anderson Ward, SVP Global Supply Chain Operations at PROPPER.

1 Exenta internal data, based on customers’ real-world results
2 Just-Style, “Piece rate pay a mixed bag for garment workers,” Leonie Barrie, January 4, 2019
Once operators develop trust for the system, they no longer spend time making notes about the pay they are owed. Instead, operators watch their garment total increase each time they scan a new piece. Scanning is easier, faster and more accurate than maintaining notebooks full of peeled stickers and hand scrawled notes.

Shopfloor Control MES is a win-win for worker/employer relationships. Stress levels are lower and operators have gained time during every shift that allows them to sew a few more pieces—boosting their own paychecks and the manufacturer’s production levels. Empowering operators to be able to see their own real-time productivity and pay data increases efficiency by 10% to 30%, as operators try to beat their own scores and earn more.3

**Boost Productivity with Incentive Pay**

When considering ways to reduce overall labor costs, paying operators less is not the goal in today’s global political climate with social media ready to amplify the brand damage of any management misstep. Instead, manufacturers should endeavor to help operators work more efficiently so they earn more while the company also benefits. Offering extra pay for above-average performance can help speed up the work on important orders. But to make performance pay work, manufacturers must have foolproof real-time tracking of operator performance.

“Previously, we were manually tracking our inventory and entering incentive pay, now that is all done automatically.”

Carrie Bovender, CEO, Grand Forest

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| Improve sewing operation productivity by | 40% |
| Empower operators to improve real-time productivity and pay data increases by | 10-30% |
Setting up performance pay in a Shopfloor Control MES system is quick and easy. Payroll managers or production managers set rules that adjust the rate for pieces that take longer or require more difficult work to complete. For example, a higher piece rate should be paid for a 3X sized t-shirt than for a small t-shirt.

With Shopfloor Control MES, real-time data drives incentive pay decisions. Manufacturers can offer special bonuses on the fly to incentivize a rush order or avoid missing a production deadline. They can also bonus to keep employees on track during times that otherwise exhibit a pattern of lagging production, such as the afternoon before a weekend.

Reduce Administrative Overhead Costs

Reducing administrative/supervisory overhead through automation can deliver a rich source of labor savings. With Shopfloor Control MES, shift supervisors don’t need to walk the floor as much to see everything that’s happening. Nor do managers need to wade through operator notebooks at the end of the day in order to transfer their production information into a computer system. Imagine a manufacturing operation with 3,000 operators. Let’s assume supervisors work very quickly, spending only one minute per worker each day reviewing the production notebooks and re-entering that data into a pay system. That equates to 50 hours of supervisory work dedicated to this simple task every day. A Shopfloor Control system could do away with this task—saving 18,250 hours per year, or nearly nine full-time employees.

In our manual data tracking scenario, the production and rate information also needed to flow through to payroll processing. Suppose the same 3,000 worker manufacturing operation employed eight payroll professionals. Shopfloor Control automation can cut the time required for payroll processing by 60% to 90%, freeing up budget for five or six people to focus on more strategic aspects of workforce management such as hiring and training.

Travel is another expense category that can be cut using Shopfloor Control MES. When brands lack visibility into manufacturing operations, product managers are often required to fly around the world to serve as the eyes and ears on the line during production. With Shopfloor Control MES, there’s no need for this type of travel because real-time WIP data is available anywhere. “Due to the integration between Exenta ERP and Exenta Shopfloor Control, our operators are able to scan their own work. By not having to scan barcodes in the office, we reduced our managerial and administrative time by 80%,” says Carrie Bovender CEO of Grand Forest.

Cut payroll processing times by 60-90%
Enhance Operational Visibility

In order to achieve maximum operational performance, manufacturers need maximum visibility. Moreover, visibility is needed at two levels: a high-level, big picture overview across the factory and a drill-down view of real-time production by operator. Shopfloor Control MES can deliver both types of visibility.

Within Exenta Shopfloor Control, management dashboards provide an instant, visual snapshot of key performance indicators (KPIs) for a specific date and time, giving manufacturers a great overview of business performance.

Driving higher productivity goals requires sharing visibility into production levels between management and operators. In Exenta Shopfloor Control, a real-time production screen called “Daily Targets” displays a live feed of units produced and a department line for direct comparison between how many units were made versus target goals. This screen makes it much easier for operators and managers to share an understanding of progress towards goals and work together to enhance productivity.

Pinpoint and Remediate Quality Issues

Shopfloor Control MES provides management with easy-to-view visuals showing all WIP throughout the stages of production, order by order. Supervisors can quickly view key performance indicators about quality, downtime, and other key factors.

Real-time information about defects and repairs helps management identify teams, individuals, or production stages where quality suffers, so they can remediate issues and improve quality processes. Incremental quality improvements lead to fewer repairs and reworking and less scrap, supporting business objectives for customer satisfaction and sustainability.

To further ensure quality, Shopfloor Control systems provide easy access to information operators need to produce a garment correctly. From their stations or on mobile devices, operators can view instructions, videos or pictures of the products they’re assembling and can notify a supervisor instantly when they need help.
Plan and Manage Large Orders

When key, larger volume contracts come in from government entities or large retail chains, it’s essential to plan for production. Management needs to be able to project large orders and plan them further out on the calendar. The plan needs to dedicate key resources such as factories, workers and equipment at the right time to keep production of large orders moving smoothly. Shopfloor Control MES features a Seasonal Planning tool that empowers manufacturers to strategically plan at the corporate level for delivery of critical, large contracts. Exenta’s Seasonal Planning tool is unique to the apparel industry. It makes it easy to schedule future projects based on project capacity at specific factories, and also to capitalize on each factory’s specific performance strengths. Planning in advance helps ensure performance on every contract while delivering consistent quality to key customers.

Minimize Off-Standard Time

When operators are not working their standard jobs, production tends to decline. Many issues can cause an increase in off-standard time, including: power failures, machine delays or breakdowns, meetings, line setting, waiting for additional work, and waiting for replenishment of inventory items like trims or accessories. Shopfloor Control MES can automate inventory tracking to ensure that fabric and other items needed during production stay stocked on the line.

Shopfloor Control MES also keeps track of machine utilization. When a machine becomes inoperable—for example a belt or a needle breaks—the system sends an automatic notification to maintenance and supervisors to get the machine up and running more quickly. Some solutions even make predictive alerts to schedule preventative maintenance before machines suffer downtime. “Having integrated ERP and shop floor systems means we can get goods to our customers more quickly, because we know when something’s available to be shipped as soon as possible, “ Bovender explains.

Reduce Absenteeism

Shopfloor Control MES can help lower absenteeism by giving managers access to complete time and attendance information. Reviewing patterns of absenteeism helps identify employees who do not meet attendance expectations. Managers can also see if certain stations or lines are overburdened by too few workers or too many temporary workers. This data can reveal areas where cross-training operators may improve coverage of stations when workers are absent. operations—all while increasing overall profitability.
Identify Where Additional Training May Be Needed

From a management perspective, with Shopfloor Control MES, it is easy to identify where efficiency crashes or quality goes down on a production line. If that occurs routinely on a certain product or at one particular station, such as cutting or hemming, it may indicate a need for additional training. It could also indicate that machines are configured ideally for that station.

Using Shopfloor Control MES data to drive decision-making in fashion manufacturing helps executives fine-tune production to meet customer expectations and improve the way the workforce is managed and paid. Shopfloor Control MES provides manufacturers with real-time tracking of both WIP and workforce performance, as well as management dashboards and live production feeds to keep operators and managers informed together. Using the power of Shopfloor Control data, manufacturers can optimize operator efficiency, offer opportunities to earn incentive bonuses, increase productivity, and improve product quality in sewing operations—all while increasing overall profitability.

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