CASE STUDY

INDUSTRY	Concrete Block Manufacturing Customer A
LOCATION	North America United States
PLANTS	More than 10

Op-Smart

Simply Better

Problem & **Opportunity**

Desire to replace an antiquated, paper-based, downtime monitoring system that required manual entry of reason codes with multiple hand-offs resulting in untimely and inaccurate reporting. Plant management and the executive team never really understood the root causes of downtime and were slow to react to opportunities to continually improve when they did because of poor data that was usually late.

Executive management wanted to deploy next generation decision-making tools to improve the plant productivity. Specifically, they craved timely, accurate, automated reporting of shop floor data as key seasoned senior operations executives with years of operating experience were nearing retirement.

Discussion

While this Company has had a solid reputation and thriving business for multiple generations, they strive to continually improve their operations by selectively evaluating new tools to increase productivity. Furthermore, they are acutely aware of the need to equip the next generation of operating managers and executives with the tools they need to effectively manage the business in an ever-increasing competitive marketplace.

While onboarding and training their future leaders it became clear to top management that the paper-based reporting system was fraught with inaccurate data and was often days late in getting to them. The old system required line operators to write the downtime reason codes on paper in increments of five (5) minutes. At the end of their shift, these papers were given to the plant supervisor for review. That supervisor would then collate them and hand-deliver them to an administrative assistant who worked in another building. It required her to interpret each operator's handwriting and descriptions to be used in the summary report. At times she would be busy with other duties so the report was often late getting to key decision-makers. Moreover, because of multiple hand-offs and a system which required someone's best guess as to what was causing the downtime, managers in many plants did not rely on the summary report but used their own systems to improve productivity in each plant. This meant the Company had multiple downtime systems in place. They all required leaning on the memories of key people for information as to what happened the day before. At best, this is inconsistent across the Company. They knew they could do better.

In today's world when we use smart phones to navigate from one place to the next, phones and even watches to pay for groceries, bands to monitor our physical activity and smart tools to control the lights, heating and air conditioning in our homes, their must be better tools to run a concrete block manufacturing plant.

Action Taken

Customer A decided to install Op-Smart's new software system to monitor and measure each step in the block manufacturing process in one key plant. This would serve as a pilot to evaluate the effectiveness of the system. If successful, they would rollout to additional plants.

How it worked

Op-Smart's support team used the Customer's actual plant layout to mirror the manufacturing process. In less than three days, Op-Smart installed their data collection server, electronic tracking devices and trained the operators to use the new system with no loss in production time. Op-Smart's automated data collection captures activity to the millisecond. In this case, the customer chose to explain downtime activities of only one minute or more.

Op-Smart deployed low cost tablet computers to a couple of key locations for operators to use to conveniently record the reasons for downtime by simply clicking a box from a dropdown menu. It was as easy as using their own smart phone.

Meanwhile, since Op-Smart's system is cloud-based, any manager or executive can access the system via their smart phone, tablet or computer, anywhere at anytime. This allows executives to have instant access to real-time information via a custom-tailored dashboard while the plant is running. It provides them with precise information to better understand what is really happening in their plants at all times. Accurate and timely information allows them to spot trends more quickly, solve problems faster and fine-tune their operations for competitive advantage. Some examples of key reports that the team found to be valuable were:

- **OEE** (Overall Equipment Effectiveness)
- **Pareto charts**
- **Industry specific KPI's**
- **The Proprietary "Fix-me report"** (aka, downtime cost analysis)

The plant personnel and the executive team engage in objective, fact-based discussions on how they can improve efficiencies. Importantly, Op-Smart integrates seamlessly with existing ERP systems to allow for accurate data across the company.

Results

Op-Smart's Process Smart system showed Customer A accurate data of what was really happening in the plant versus what they believed to be happening in the plant. For example, the plant team was surprised by the actual length of transition time (includes mold change, set-up and mold adjustments) and the actual length of break-time on shifts versus what was previously being reported. It was identified that shift beginning and ending were significant opportunities for productivity improvement.

Bottom line, the plant was able to identify a 6% productivity gain. This meant $240,000 per year at the pilot plant. When they extrapolate this to more than ten plants they were energized to roll-out Op-Smart across their company. In summary, they realized the system gave them a better ability to allocate capital on true bottlenecks and it significantly streamlined their data collection and processing.

The team now takes advantage of Op-Smart's advanced decision making tools to allow them to make better decisions, faster and ultimately run a more efficient manufacturing operation.

Next Steps

Based on this successful pilot, Customer A installed Op-Smart to a second plant and is finalizing plans to deploy to all plants. Furthermore, they are testing Op-Smart's advanced scheduling capability to ensure they are producing the right products at the right time to deliver high levels of customer service. And, because it is cloud-based, sales and manufacturing have the ability to collaborate in real-time and adjust to marketplace changes.

Could Op-Smart's suite of advanced tools help you improve your concrete block manufacturing plant?

Email us at sales@Op-Smart.com for an introduction to a fast, affordable and integrated decision making system which will give you the competitive edge you need in today's marketplace.

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