How Performance-Driven Construction Management Will Improve Productivity

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In 2023, despite the proliferation of digital tools and advanced management programs, the construction industry still grappled with project delays and cost overruns. A staggering 98% of projects face these challenges.

As highlighted by McKinsey, many construction sites, while making strides in innovation, continue to look much like they did a century ago. But is this slow evolution rooted in technology (or lack thereof), people, or both? Could a performance-driven construction management (PDCM) approach pose a pragmatic solution to this innovation dilemma?

WHAT IS PDCM?

In an age dominated by advanced technology, using a pen and paper or even an Excel spreadsheet on a jobsite or in an office is not the most efficient. Manual, analog tracking leads to complexity and inaccuracy. Even with proper monitoring, analog reports will lack a level of clarity when it comes to analyzing them, hindering timely decision making.

This method poses a reactive approach to any reporting problems, and causes work to play out like an endless round of whack-a-mole, addressing issues after they arise instead of anticipating and mitigating. This style of project management results in projects stuck in a cycle of delays and budget overruns, as evidenced by only 54% of planned work being achieved weekly.

This is where PDCM — not just a theoretical concept but a practical shift toward regular performance evaluations — comes in. It goes beyond traditional outcome measurements — and processes of measuring — that focus solely on budget and scheduling. The goal of this new approach is to foster a culture of continual performance assessment and modification, emphasizing planning efficiency, early risk detection, and workflow consistency, that is integrated with the day-to-day construction schedule.

WHY TRADITIONAL MANAGEMENT FALLS SHORT

Traditional management models, despite meticulous preplanning, often falter during the construction phase. The firefighting approach leaves little room for prompt

adjustments, resulting in a relentless pursuit of escalated issues. PDCM challenges the subjective nature of traditional management, encouraging a shift from reactive to proactive decision-making.

By measuring the efficiency of workflows, effectiveness of collaboration, and overall team performance, PDCM equips teams to regularly identify areas for improvement and execute corrective actions. This strategy ensures continuous workforce improvement and enhances the ability to handle challenges as they arise.

PRACTICAL SHIFT

PDCM urges construction teams to apply a measure-optimize-analyze approach. Analyzing measurements and trends enables the assessment of the performance of different areas and trades. Comparing actual project performance to planned progress allows a team to identify what's working and what isn't. If the analysis shows red flags for any tasks or trade partners, you can dig deeper to root out the underlying causes of problems.

For example, take the challenge of trade output inconsistency. One study revealed that a trade's output fluctuates by an average of 56% week over week. This inconsistency makes predicting completion times a nightmare. However, addressing this consistency issue directly correlates with a reduction in delays. For instance, an output inconsistency of 50% leads to a 20% delay, while 25% inconsistency results in only a 4% delay. By measuring trade partners' production pace and optimizing their output, project managers can mitigate delays and enhance overall efficiency.

Another common problem is return visits. One company recently faced this challenge during the construction of its 48-story tower project. This 512,000-square-foot development in downtown Seattle wanted to ensure teams were working as efficiently as possible by minimizing completion gaps. By measuring what tasks were completed and if they were completed correctly and analyzing this data, they were able to identify errors in the install of pipe insulation across 24 areas that would require return visits to remedy.

Through implementing the PDCM framework, the company managed to reduce return visits by more than half. The act of identifying and optimizing those 24 errors resulted in a savings of 3.5 weeks of projected delays and $79,000 in direct costs.

PREPARING FOR CHANGE

Transitioning to PDCM requires moving from chasing timelines to being in control. It involves diving deep into project dynamics, monitoring activities closely, and making informed decisions at every step. It's about proactive management, not just reacting to problems. To make this shift actionable, construction teams need timely, accurate, and objective progress data.

Utilizing technologies that provide comprehensive insights into project dynamics can facilitate this transition seamlessly. With the right data, PDCM principles can be easily integrated into daily practice without time-consuming and costly adjustments.

Follow these practical tips to shift from pursuing deadlines to being in command of your schedule: embrace a proactive management culture by diving deep into project dynamics, ensure your project has access to accurate and timely progress data for individual tasks, analyze measurements and trends comparing actual project performance to planned progress, and use these insights to optimize performance by implementing timely solutions.

The future of construction belongs to those who adapt and thrive in the face of evolving challenges. By focusing on proactive decision-making and continual performance assessment, the industry can pave the way for efficiency and success. PDCM represents not just a methodological shift but a cultural one — a commitment to continual improvement and a proactive, data-driven approach to construction management.

About the Author

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