

Project Manager Time: Revealing Process Gaps & Project Predictability

By Dr. Perry Daneshgari & Dr. Heather Moore



A project manager's (PM's) work and performance represents construction's most visible management activity. Whether gained through an accredited construction management program or years of field experience, a PM's background shapes how they navigate the company's structure, controls, and processes. And because nothing falls outside their purview, PMs in construction drive project outcomes.

To identify, codify, and predict the outcome of PM work, MCA, Inc. was commissioned to study the daily activities of PMs across several large contractors.

This article summarizes the approach, findings, and analysis of PM current work and activities as well as obstacles to explore how companies can improve project visibility and stability, reduce variation in PM performance, and lessen reliance on individual experience.

INVESTIGATION

The study was commissioned to establish a baseline for existing project management capabilities. The results inform a road map identifying company needs and supporting growth and stability.

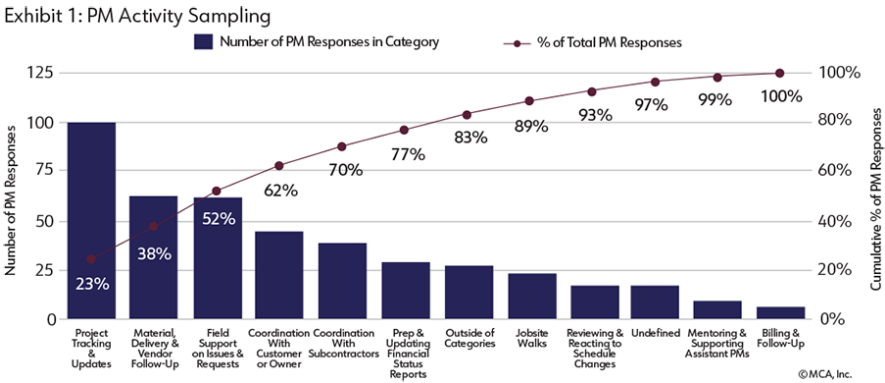
Over the course of one month, MCA, Inc. sampled more than 50 PMs from companies across the country. In addition to interviews as a part of weekly job review meetings, over 30 PMs took part in an activity study, where they were randomly sampled twice a day. Their daily plan and obstacles to completing that plan were also documented at the beginning and end of each day using the short interval scheduling (SIS®) process and software.

The study's objective was to document PMs' current activities and obstacles — and, in doing so, to determine how closely PMs' daily work matched overall business objectives, measure the usage of previously established processes, and identify where to focus improvement efforts.

To fulfill these objectives, MCA, Inc. utilized a structured framework to study PM activity through three primary methods: random activity sampling, documenting PMs' daily obstacles, and interviewing and surveying field teams about their expectations and observations of PMs.

Where Are PMs Spending Their Time?

Over several weeks, MCA, Inc. selected random times throughout each PM's workday to sample current activity. A breakdown of this PM activity sampling can be found in Exhibit 1.



The sampling found that one in four PM activities involved tracking or reporting. Of that time spent tracking or reporting, 28% was spent attending or leading meetings.

The third most frequent activity — field interaction and support (14%) — was similarly meeting-heavy; the most common subcategory was direct field reviews.

The remaining field support activities varied, depending on company, project, PM, and field leads. This frequency of meetings between the field and PM is expected; field leads want frequent PM contact and consider it a priority.

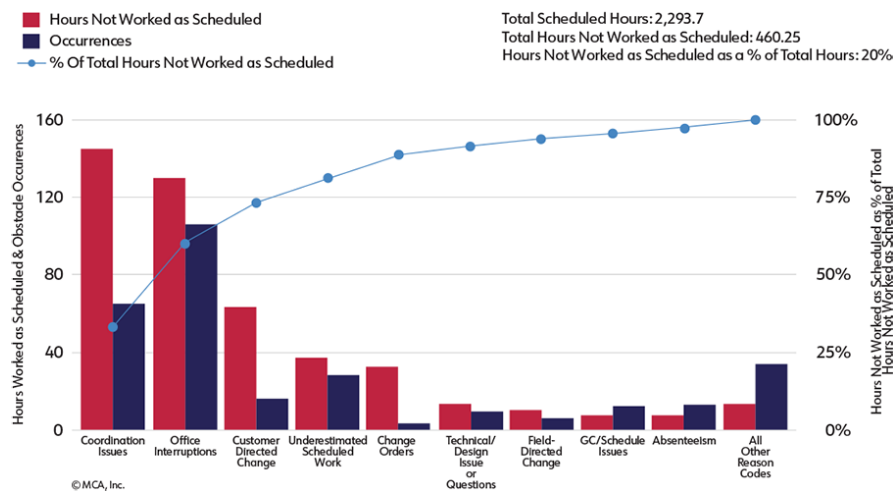
After interviewing the field teams, the preferred method to accomplish this communication was frequent *ad hoc* meetings. While many have official review meetings set up and daily or weekly planning sessions, most interactions were unplanned.

While these meetings are crucial to project progress and cash flow, they carry a cost: PMs are unable to complete their planned daily work.

What Obstacles Are PMs Facing?

Throughout the study, PMs kept track of their daily plans and any obstacles that interfered with that planning using SIS[®]. The obstacles recorded for the PMs' daily plans are shown in Exhibit 2.

Exhibit 2: PM Daily Obstacles



The top obstacles PMs experienced to their daily plan throughout the study were coordination issues, office interruption, and customer-directed change, which included anything from meetings being added or running long, unexpected phone calls, or assisting others around the office.

These obstacles indicate that PMs are managing discrete events — "firefighting" issues as they come up rather than using project management processes to predict and prevent unwanted situations, outcomes, or behaviors (for additional information on prevention vs. reaction, see the September/October 2021 issue of *CFMA Building Profits* ¹).

Managing discrete events or firefighting issues are key signifiers that there is a lack of processes or controls in place to help *prevent* issues from occurring. Without processes to ensure information flows reliably, decisions get made in isolation. To protect project outcomes, decisions must be made the moment issues surface.

Consequently, frequent meetings and phone calls become necessary. However, when processes are in place and used, they can help detect the same issues early and reduce their impact, mitigating stress on the project management team and minimizing variation in project outcomes.

How, then, do you identify where processes are lacking — or whether those in place are being consistently followed?

RESULTS

The Need for Process

Throughout the study, each company's processes and procedures were surveyed and documented, comparing them to the activities being tracked by individual PMs. The analysis yielded two primary findings.

First, the most common spreadsheets created by PMs were ones that covered activities that lacked existing processes or tools. For the PMs surveyed, this primarily included change order tracking, material forecast and tracking sheets, and subcontractor tracking.

While these areas were the main process holes for the sampled companies, these gaps can vary from company to company. Regardless of what the gaps may be in your company, it's critical to recognize that each process gap will consume significant PM time.

Change order tracking was the second highest subcategory within project tracking — which was also notably the highest reported category — and managing material and coordinating with subcontractors were the second and fifth largest categories reported, respectively.

Second, each PM used or had created approximately 10 individual spreadsheets to complete their regular work. Beyond the few topics covered in the first result, the rest of the sheets tracked items that had processes or procedures in place but that the PMs were unaware of.

The main issue was lack of process maintenance in the form of training, tracking of the process usage, and process correction.

Study Comparison

A separate MCA, Inc. study found that the likelihood of a project to gain or fade in profit is heavily influenced by the PM's experience level. ²

From MCA, Inc.'s job porosity research (published in the September/October 2023 issue of *CFMA Building Profits* ³), when a PM was with the company for less than two years, their projects experienced fade 71% of the time as compared to 48% of the time for more tenured PMs.

Across every role — craftworker, supervisor, and PM — relying solely on individual tacit knowledge makes project outcomes unpredictable.

In an industry that demands more out of existing resources, relying only on the individual knowledge of PMs limits a company's growth potential.

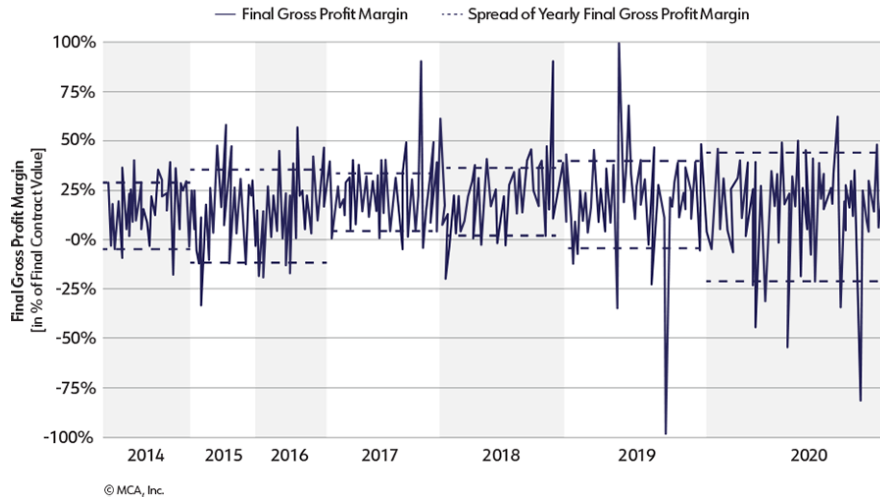
This also explains the lack of ability to maintain the existing control processes in organizations. Even when companies determine what their ideal processes are and put them into place, if they are not constantly seen, reviewed, and updated, their usage and daily relevance will begin to fade.

Processes help stabilize and create consistent outcomes of an activity. Project outcomes vary wildly before processes are defined and stabilize once they are followed.

However, the moment those processes fall out of use and are no longer governed and maintained, companies return to irregular outcomes.

In Exhibit 3, the spread of a sample company's gross profit margins narrowed around 2017 (and became more predictable) as the company focused on creating and enforcing its internal processes, with project margins typically ending within 20-25% of each other. However, after the processes were created, the company failed to continue enforcing, maintaining, and updating them.

Exhibit 3: Project Final Gross Profit Margin Volatility



As a result, the processes became less applicable and less used, resulting in project outcomes becoming unpredictable once again, with the spread of typical project margins nearly doubling the spread of margins while processes were being maintained.

Processes & the Industrialization of Construction

Without the use of process, whether its because processes are undefined or not maintained and trained, the following are the three main effects observed.

1. Predictability of Jobs Goes Down

The PM's core role is maintaining project control so expected outcomes are met.

Without processes to support this endeavor, the role of managing a project becomes much harder and more labor intensive.

As noted previously, this causes additional meetings, obstacles to expected work, extra effort to understand and report on areas lacking process, different decisions from project to project, and overall unpredictable project outcomes.

2. PMs Are Forced to Create Their Own Structure to Complete Their Work

The creation of tracking documents — or other management tools — and lack of process that causes that creation takes time and effort that may be better spent supporting other areas.

This time can only be recaptured if the right process or tool is applied. However, you will not know the right process to define or tool to put in place without recognizing your current processes, where your PM's time is being spent, and what areas need the most help first.

3. Increased Potential for Data

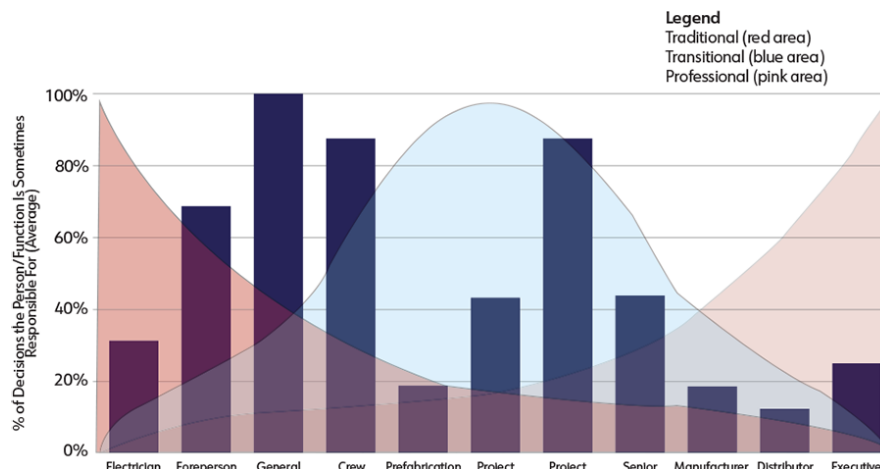
Loss In the rise of the data age, as AI becomes a more powerful tool in the construction industry, it is becoming more difficult to accurately consolidate and gather a company's intelligence into something that can withstand the test of time. The Industrialization of Construction® requires production, management, and application of an immense amount of data.

AI is not only automating tasks, but collecting, summarizing, and applying the existing data as determined by the users. While AI is a tool that can help alleviate stress on PMs and field workers, there is a limit to what it can help with until organizations have followed the approach of digitalizing, commonizing, and interconnecting their work.

Before AI can be used to aid in the complex decisions that arise on a jobsite, or even reporting useful information up the chain, information on these decisions must be standardized, digitalized, and structured in a way that can be meaningful across projects.

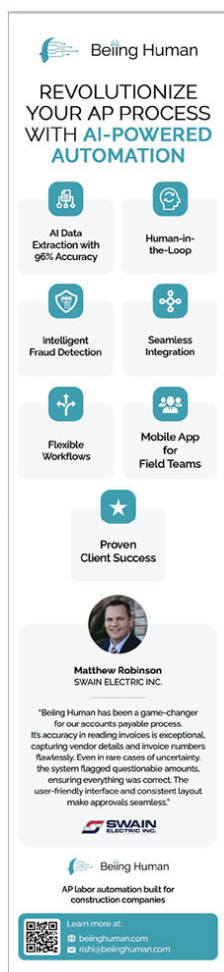
These observations are indicative of a lack of industrialization. After completing the study and analyzing the results, the participants completed the Industrialization of Construction® Litmus Test (as introduced in a 2021 *CFMA Building Profits* article ⁴) to determine quantifiably how industrialized they were as a whole (Exhibit 4).

Exhibit 4: Industrialization of Construction Litmus Test Results



The test results indicate that the study participants fall into the transitional category (represented by the blue curve), where decision-making has moved upstream but is not yet standardized to allow for further industrialization. This matches the observations documented as well as results industry-wide in that most companies currently fall into the pattern of the transitional organization.

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INDUSTRY APPLICATION

Given these observations and outcomes, what steps can you take to help your company?

Without the collection, summarization, and application of data, project management in the construction industry will continue to rely on the hard work of both PMs and the field. However, as the industry progresses and updates its expectations for resource output, it will become impossible to manage the amount of work expected without the establishment of processes and the digitalization and commonization of data.

In the meantime, while collective knowledge is being stored and processes created, there are several actions your company can take to help support and streamline the work your PMs are doing.

Begin by identifying what your PMs are expected to do today:

- Review and make your expectations for PMs explicit. What standards do you have in place for planning, monitoring, and acting to maintain project control?
- Identify where PMs in your company are spending most of their time. Is it on what you would expect? Is it helping ensure your projects are predictable and profitable?
- Evaluate whether PMs have access to enough information to know project risks. Can they prevent issues rather than react and resolve them?
- Assess which areas of PM activity have processes and procedures. How well are those processes and procedures being used? Who is involved in making key decisions?

It's also critical to prioritize areas of project management to digitalize, commonize, and interconnect:

- Consider introducing automation in areas that currently have standard procedures and processes.

- Less established areas, which require heavy resource allocation, should start with digitalizing what people do today, documenting, and creating a commonized process.

Ensure that new and developing processes are consistently taught and reviewed:

- Confirm that key operational objectives and goals are reflected in training and documentation.
- During onboarding, train on existing processes and tools to reduce single-use spreadsheets and tacit decision-making.
- Stress the importance of replacing informal exchanges between the field and PM with more trackable and consistent approaches.
- Bring the same methods and outcomes to every project, for the jobsite/field, customer, and company.

CONCLUSION

Project outcomes in construction still rely heavily on PMs' experience and tacit knowledge. As pressure increases for the industry to get more out of existing resources, ensuring that PMs are using their time effectively and efficiently is becoming even more vital.

The results found in this study are not company specific; for every company lacking processes and process maintenance, there can be a negative effect on both PM workload and overall project predictability.

This is ultimately a systemic issue, which occurs as organizations grow and try to support larger amounts of work without the processes or maintenance plans to support the new workload.

To meet the industry's needs, continue along the path of industrialization, and reduce the stress and reliance on individual PMs, organizations should focus on designing, maintaining, and improving processes for all aspects of their operations — before adopting any software solution.

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The methodology described in this article is intended as an illustrative framework. Organizations seeking to conduct similar analyses are encouraged to work with qualified operational consultants to ensure accurate data collection and interpretation.



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Endnotes

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