Breaking the Mold: A Nonlinear Approach to Construction Financial Projections

The role of a financial professional in construction is different than in any other industry. Managing the financial inputs, throughputs, and outputs in construction are complicated by the unpredictable nature of the source data.

Construction financial professionals (CFPs) can often be the last ones to find out about upcoming projects, their costs, and cash flow requirements as well as the impact on the company's overall financial performance. This lack of insight into the pipeline and backlog forces CFPs to rely on linear projections and predictions, which presents a challenge to projects and budgeting. However, these challenges can be overcome by CFPs getting involved in project operations early and often to gain visibility to the pipeline and backlog information as well as to provide valuable input to project financial planning.

This article explores pipeline (e.g., business development, potential jobs) and backlog (i.e., awarded work that has not yet started) by providing a point of view and recommendations for CFPs to help them transfer linear projections into more accurate nonlinear, historical performance-based projections and budgeting.

Preplanning

The term preplanning is unique to the construction industry due to the lack of advanced planning. CFPs along with their project managers (PMs), who operate with more data, primarily rely on financial reports, which are after-the-fact in the best case. As far as the ability to course correct based on the actual work performed, timely decisions are impossible through the rearview mirror of financial reports.

In the field, preplanning refers to any planning that happens before the job starts. In other words, planning the work and resources early is often a challenge due to the lack of, or changing, information.

This challenge continues from the field to the business, where many construction company owners are tradespeople themselves, having once been in field planning. When building on their success with minimal information, it becomes a challenge to depend on data for decision-making and business planning — relying on CFPs and good accounting systems becomes critical.

However, information about the pipeline and backlog doesn't always live in accounting; at best, it is kept in a spreadsheet, but there are often a lot of informal agreements with customers that aren't incorporated into that spreadsheet. So accounting will only know about the upcoming work if a PM or estimator gives them input, which does not always happen.

To connect the front-end of the work and capital flow in a construction business, CFPs must be able to see the input, throughput, and output of the work inside of the company as well as out in the field.

One way of managing the flow of information in many industries is through digitalization, commonization, and interconnection (DCI™) of the data sources and their inputs. The process starts with pipeline, backlog, and project tracking (including procurement) and is finalized with accounting and financial reporting, including data quality analysis of gaps among any of the sources.

Pipeline & Backlog

Through our work in the construction industry, we have come across various understandings of the pipeline and backlog.

There are three general mindsets when it comes to measuring, tracking, and managing this first step in the flow of information:

1. Ignorance is bliss.

- We don't have a pipeline; we bid one job at a time.
- I'm more worried about running current work than tracking backlog.
- It's too tough to keep up with it, and my business is doing fine.

Digitalization, Commonization & Interconnectivity

The digitalization, commonization, and interconnectivity (DCI™) of data requires data quality control, which has the following components:

1. Data collecting
2. Data recording
3. Data reporting/reduction
4. Data presenting

To assure the quality of these four components, the transition taxonomy of data to information, knowledge, and wisdom must be established.[1]

What supervision uses to manage the work can be replicated in the form of DCI™ applications. DCI replaces the eyes, ears, and spreadsheets of each project and PM with a consistent set of applications that build a corporate memory for the optimized processes and information to be used during each project's planning, procurement, installation, and closure phases.[2]

DCI Construction™ connects distributors, manufacturers, and contractors.[3]

Endnotes

1. *Daneshgari, Dr. Perry & Moore, Dr. Heather. "How Will Working From Home Catalyze Industrialization?" CFMA Building Profits. January/February 2021. cfmabponline.net/cfmabp/20210102/MobilePagedArticle.action?articleId=1655665.*
2. *Daneshgari, Dr. Perry; Moore, Dr. Heather; & Sullivan, James. "What Workforce Shortage? The Problem Is in the Planning." CFMA Building Profits. March/April 2022. cfmabponline.net/cfmabp/03042022/MobilePagedArticle.action?articleId=1776860.*
3. *Daneshgari, Dr. Perry & Moore, Dr. Heather. "2022 Industrialization Update: Evidence & Projections." CFMA Building Profits. November/December 2022. cfmabponline.net/cfmabp/11122022/MobilePagedArticle.action?articleId=1839133.*

2. Sailing in smooth waters.

- We have a consistent client/work base, and I'm not worried about getting future work.
- I'm not looking to grow or expand outside of our current base; if we just keep doing what we're doing, we'll be okay.
- I have simple tracking on my computer of the jobs I know are coming up.

3. Expansionary and risk-taking.

- We're trying to grow (geographically, market/niches, volume, etc.), and I need to align our strategy with a view of what work is available.
- We've grown, and I can't keep all the bids, customers, and work we've committed to in my head or in our current systems anymore.

All three mindsets can benefit from the digitalization of the pipeline and backlog for interconnectivity.

By providing a point of view for CFPs, this can help transfer their linear projections into a more accurate nonlinear and historical performance-based projection and budgeting; segregated data about performance provides insight into typical performance of certain groupings of projects (e.g., by customer, location, type of work).

Life & Work Are Not Linear

When data for daily schedules, weekly and monthly job progress, and overall construction put in place is visible and trended, it can show that construction is not "linear." Yet, accounting systems or other tools forecast the backlog as though it is equally divided in time.

For example, if your estimating department just won a 10-month, $10 million job, the assumption is that $1 million worth of work will be performed per month. For macro planning on that job or a few others, this might be good enough; however, once you start stacking these linear scenarios on top of each other to aggregate company resource planning, the differences become significant.

What once looked like a need for 35 workers in three months could be 70, and what may look like work ramping down in six months could be just the opposite.

As shown in Exhibit 1, industry data shows that construction goes through very consistent cycles, and the same holds true for

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