TEN KEY ELEMENTS

CONTROLLING PROJECT BUDGET FROM BREAKING GROUND TO HAND-OVER

Today, all businesses need deeper transparency within the performance of their projects. None more so than in the construction industry where budgets have become much tighter and investors, stakeholders and business owners feel the impact where any over run or overspend will have an amplified impact. Business decisions along the way are, these days driven or influenced by the information available 'en-route'. This in turn creates the absolute demand for this information to be as accurate and up to date as humanly (or more to the point, inhumanly) possible.

This eBook focusses in on the top 10 countdown of factors that can benefit or prevent effective cost control on the construction project journey. These challenges are vast and span multiple aspects and sources with the intention of assisting in tackling this ever more important aspect.

COST CONTROL IN ITSELF

These days, construction companies can face huge difficulties in keeping track of project performance both internally and externally. The individuals tasked with providing this information will be confronted with some core questions to which they will be required to provide answers. Whereas on face value, these questions may appear straight forward (such as will we be able to hand-over on time), the true answer may be far more complicated.

Questions related to being on budget and on time can be confused by the sheer volume of sources of information requiring reconciliation before being able to conceive of an answer, an answer which can change multiple times even during the information gathering process. With so many variables, it's no wonder that the industry leaders have been utilising bespoke specialist software to handle these aspects and have been at the forefront of their development for decades.

Another crucial question relating to the cost control question concerns contract commitments. How much of the forecast budget has already been committed to sub-contractors working on the project at any point in time and how much of this allocated budget has already been spent. What trends can be identified and how will this impact the rest of the project?

Although schedules and cost can be considered basic elements in terms of 'input' relating to project performance, the reporting of these is often extremely tricky. To complicate matters further, when these elements have been reported, what use or relevance will the data in this format have in making changes and adjustments necessary to address any issues. Perhaps most important of all, construction projects will have defined contract deliverables which will require some form of audit and reconciliation that will need to span the vast array of elements and parties involved from internal departments right through subcontractors and suppliers.

For those in traditional manufacturing and supply companies, these questions may seem straight forward. The reality for the construction industry is very different and even keeping track of what is being spent can be an onerous task.

When considering how construction companies can better control costs through the life of their projects, we have highlighted 10 key factors to consider.

> To achieve a step change in performance, engineering and construction, companies need to reimagine governance, people and technology. It's not enough to address these components independently - we have to find new ways to make them work together in an integrated fashion.
>
> *KPMG Global Construction Survey 2017*

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Cost reporting versus cost control

A frequent and common frustration found in cost controls professionals comes from the perception of being cost "accountants," expending considerable time accounting for work that was already completed. In their experience,, too much of their time is taken up checking that the data provided is true and accurate (effectively performing vast manual reconciliation. Forecasting ongoing expenditure and analyzing the data effectively would enable construction companies to identify overspends and over runs and take appropriate action which would be far more beneficial than simply 'counting the costs'.

Budget and Forecast

All too often, the way in which budget analysis and forecasting is conducted is dependent on the experience, processes and procedures of the individuals carrying it out. This leads to a lack of consistency across the business and ultimately means time correcting or accepting (perhaps unknowingly) the margin of error created. There is a real and pressing need to have all such elements removed as the margin of profit available to construction projects in this day and age would not withstand even small errors in non-standardised reporting. To put it bluntly, if the margin of profit is as little as 5-10% on a modern day construction project, errors or missed over spends of as little as 1% could represent 10-20% of the profits.

Measuring progress from multiple sources

The process of collating a coherent integrated picture when dealing with multiple sites, sources, subcontractors and suppliers is not an easy endeavor. Pulling together progress information such as % completed, or verifying accurately recorded and reported sign-offs from various sub-contractors is, even with vast experience, extremely challenging. Once such information has been collated, it would be ideal if it could be used to pull together an accurate and compelling overview of the project progress as a whole. As already highlighted, the burden in terms of time alone can render some or all of the information obsolete but add in the variations in how that information was collated and presented, you are once again facing the possibility of significant variances (not in terms of actual variation on forecast but merely in the information provided in itself). Once you factor in scale and look at larger construction projects, these inaccuracies have the potential to significantly distort the true picture.

> "Only 31 percent of construction and engineering companies have integrated systems for project reporting, which means that most project managers lack the capability to control all elements of the work"
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> *KPMG Global Construction Survey 2017*

Schedule and Cost

Keeping an accurate track and comparison between the schedule and cost is a particular concern for construction project managers. Those tasked with balancing the time on track elements would usually focus on broad milestones. Conversely, those in the world of accounting (providing the data on cost) would naturally focus on cost codes, defined reporting periods and transactional data. The various departments and stakeholders across the project will have their own management teams who will, by the nature of their experience and methodology, have their own individual style of reporting. Let's add to this that each group or department will be using the tools and software designed for their specific function. This creates an even greater strain on accurately measuring and reporting on the actual project progress and achievement or maintenance of the forecast budgets.

Reporting as a business tool or a business cost

Collating information from spreadsheets and putting them into presentations can take hours if not days and represents a genuine cost to the business (which unless you have factored this time into your overall forecasting will eat away at margins to some degree). With margins being so tight, the demand for reports and updates is of course high as stakeholders need to be reassured that their projects are on track which amplifies this issue ten fold. Construction software has the capacity to take this workload away from your front-line employees and management teams. This allows them to focus on their true professional expertise and utilize their time in the best way possible to deliver business results rather than tying them up in creating PowerPoints and graphs to communicate them.

Shared Data and Multiple Systems

The discrepancy between platforms and operating procedures discussed in 'Schedule and Cost' is amplified across the entire business (not to mention with the use of sub-contrctors and suppliers). There is an answer that deals with this element (and all element raised in this article). Modern Construction Software is loaded with business intelligence and reporting functions that will now be able to pull data from all your departments across every business function. This will identify areas that are succeeding above and beyond expectations whilst highlighting any areas that are falling short. In simple terms, which processes and procedures are profitable and where you are bleeding costs. A typical example is in resource management. Whether you are renting plant equipment or it is owned by you (or a combination of both), making sure it is utilised across sites and to its maximum effectiveness and efficiency will have a direct impact on your costs. Planning tools built into your software will allow easy scheduling to remove duplication of resources (one resource currently idle at one site whilst renting another to complete work on a different site). This example can be applied to all resources including manpower for example and will begin delivering financial benefits across the board as soon as you are up and running.

> 95 percent of teams think technology/innovation will significantly changet their business, but a mere 5 percent view their organisations as "cutting edge" when it comes to technology.
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> *KPMG Global Construction Survey 2107*

True Customer Relationships are better served by delivery than management

Construction projects have customers and, in turn some element of customer relationships and relationship management. Although these 'customers' are going to want to receive updates (the cornerstone of relationship management), their key concern is going to be in having their projects handed over on time and on budget. Organisations invest heavily in CRM systems and communication tools to deliver customer relationship management but often lose sight of delivering the 'end result' in deference to reporting on the adjustments to delivery dates. Appling the same focus and budgets to the systems that can truly ensure the projects meet their cost and delivery forecasts would not only protect profit margins but would increase customer confidence and set the organisation apart in terms of maintaining a reputation for always delivering on time and on budget.

There are lies, damned lies and Reports

It stands to reason that having an abundance of centralized data will allow a business to use that data in the ways that best fit their operational model. The most powerful Construction Software packages have the facility to add on bespoke reporting modules to easily communicate and display this data to maximum effect and in the most effective manner to be disseminated to the correct decision makers. Not only is this extremely efficient, it has the knock-on effect of allowing those decision makers to accurately respond to the data provided.

Work smart, not hard

This is perhaps the simplest of all the elements to explain. The demand for reports, manual collation, checking, re-checking searching for the cause of cost or delivery delays (and the list goes on and on) and all of the processes and procedures is a massive drain on resources. Every resource needs to be used effectively and efficiently in every aspect. The sheer manpower required to accurately carry out this work is massive (and, in reality, manpower that is not really required) as could be all but replaced by integrating the right systems to streamline all these aspects across the board.

> This years report (2,690 construction industry professionals responded) indicates that more companies are realising the value of dedicating funds and recognising the need to plan for technology upgrades
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> *2017 Construction Technology Report by JBKNOWLEDGE*

Change Control

Dealing with changes to the original forecasting and estimates in comparison to actual deliverables along the way represent the biggest challenge to controlling cost. How many times have you wished you'd identified an issue much earlier as it would have saved significant time and or money to have done so. In the construction industry, you will all have experienced, or at least know someone who has seen their entire margin all but wiped out by a simple error in estimating or cost assessment. One function of a truly comprehensive Construction software package is estimating software that minimises human error and calculation errors from the process. Construction ERP software also integrates information from every element of your business and provides up to the minute real time data and reporting. This can predict or catch things such as cost over runs and enable you to do something about it before it cripples your margins. Cash flow is king and having milestone payments (valuations) flagged, documented and submitted immediately could mean the difference between being in the red or in the black.

Conclusion

Answering fundamental cost control questions is often difficult. Challenges include insufficient resources, a reliance on manual consolidation, systems that fail to share data, different perspectives and data structures, and an insufficient change management process.

Common themes that have emerged controlling cost in construction firms has lead to some straightforward answers to address these challenges:

1. Organizations are moving towards standardization of the cost controls process by utilising the power of bespoke construction software that was built specifically to encompass all the elements and challenges faced.

2. These platforms support and enforce an integrated cost control system. Through integration, reporting becomes more automated and eliminates many of these challenges from the outset.

3. The most successful organisations have embraced the power and leverage of construction software developed by the world's largest and most influential players. Newer firms and, in fact any organisation at any size is able to feel the full benefit of the work and research already carried out by using the systems they have developed and adapting their processes to it. They have been able to break the chains of legacy systems and processes to become far more profitable and efficient.

> "Less than half of the respondents to this year's survey say their company has developed a data/technology strategy or roadmap. Of all the technologies, Project Management Information Systems (PMIS) is considered to have the greatest potential to deliver value yet just 1/5 have implemented PMIS across all projects, and a mere 8% say they have a full, realtime PMIS capable of project and portfolio reporting"
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> *KPMG Global Construction Survey 2017*