If Only Your Business Decisions Were as Simple as Your Choice for Friday Night: "Dine-In" Or "Carry-Out"

Unravel the mystery of project delivery with construction-specific ERP technology

By Steven Gross and Sal Ashek

Whether you are a contractor, architect, design-build company, or facilities management firm, you share a single goal in project delivery – to exceed your customers' expectations. But, if that business objective wasn't difficult enough already, the myriad of decisions that must be made along the way are sure to test the skills, strength, and heart of any organization.

To say your construction company has to be both nimble and responsive is a severe understatement. Competitive forces, the availability of time and resources, as well as shifting customer expectations, place significant pressure on the manner in which you deliver projects. That's why even long-time industry leaders are seeking support from sophisticated software solutions to become more effective, efficient, and productive on a daily basis.

In order to do anything more than survive (i.e., to grow and maintain your profitability), you need a far-reaching, construction-specific enterprise resource planning system. Traditional software packages and apps won't even help you compete in today's world, much less succeed.

You need to drive results inside each and every daily task, as well as your overall business objectives, through the use of an ERP (Enterprise Resource Planning) program. A truly integrated solution can successfully bring together the financial and operational sides of your business, streamlining access to mission-critical construction-specific data. With an enterprise-class system encompassing all aspects of your activities, your firm's key stakeholders can unite to reach important decisions quickly and keep projects moving forward on time and on budget – despite any changes that may arise.

Delivery Decisions

How you choose to design, construct, and deliver is one of the most important decisions made by owners. Is it best to use design-bid-build (DBB), construction management at risk (CMAR), design-build with bridging, private partnership, or some other method?

Once the delivery method is determined, the contractor and key stakeholders will begin working immediately, but it's safe to say that without the support of an enterprise-class, construction-specific ERP, it is nearly impossible for you to succeed. Let's take a look at some system specifics that can determine your success.

Communication is Key

Building Information Modeling (BIM) is common practice in construction. It is often the foundation for project estimation and management, and is aimed at achieving cost savings, more effective communication, and the completion of superb builds. Construction-specific ERP systems support BIM to allow you to share real-time project information through an array of applications that link the financial and operating sides of the firm at the job site.

One example is the integration of email content with the ERP's project management application. As stakeholders interact, the thread of information they create is automatically captured and archived. Team members, partners, and vendors can share photos, documents, drawings, and more. This allows them to quickly and easily create, distribute, retrieve, and review information without duplicated effort and manual data entry.

Moving beyond information sharing, scheduling activities within an integrated system brings tremendous productivity gains and reduces miscommunication. In addition, mobile technologies can help reduce the gap between project roles, geographies, and more. Such applications remove significant communication barriers and deliver tremendous productivity gains, and have proven themselves in firms across the industry.

Change Orders, AP Approvals, and Other Project Management Concerns

Without ERP, valuable and highly-paid employees can get mired down in meaningless tasks, for instance, when project managers spend too much of their time creating Excel sheets and manually

entering data. With an enterprise-class ERP system, they would have the ability to create, manage, and approve change orders quickly and easily, as well as view the impact of current CORs and their status at any given time.

Industry statistics indicate that there are a number of contractors who have yet to automate their AP approval process, thus failing to reap the benefits of a fully-integrated field and front office. The simple fact is that it is never too late to empower a project manager to start an AP approval in the field and then utilize on-the-go management to keep things moving forward.

With enterprise resource planning modules in place, invoices can be approved, routed, paid, and archived without printing a single piece of paper, or sending couriers or mail. Furthermore, by uniting your ERP with third-party applications, you can also leverage the convenience of payment cards to capture additional value.

Other areas where technology can play a key part in your successful project delivery are the documentation and sharing of punch lists, meeting minutes, RFIs, and more. Certain ERP system settings can be established in email communication, like adding project numbers to the subject line, so content gets automatically linked to the specific project in the project management application. By using an ERP to deliver your projects, its features can generate significant time savings and productivity gains for your organization.

Job Cost Management and Financial Control

Most firms would agree that the biggest value ERP technology can provide in terms of job cost management is a comprehensive, yet intuitive, interactive dashboard. These highly-sought-after solutions allow you to view and share job cost at a high level, as well as the ability to drill down into critical details.

Through the dashboard, job cost segmentation structure allows you to view percentage of completion based on quantities, hours, and dollars. Such information is invaluable to the CFO, project manager, and the end-user. While looking up data, executives can create, view, and share P&L statements, income statements, and cash position per job, while forecasting revenue for future periods and calculating accruals. These powerful tools also allow you to know your actual vs. budgeted figures at any time.

It is often said that something cannot be controlled until it is measured and understood. That is especially true when it comes to profits and expenses. Thankfully, a construction-specific ERP system can provide you with significant visibility which, in turn, will allow you to bolster productivity, drive performance, and better manage project costs.

Microsoft Excel spreadsheets are outdated as soon as they are saved, emailed, or printed. CFOs need dynamic and up-to-the-minute systems that serve up real-time data with a click of a button so they can quickly and accurately calculate accruals or complete forecasting and budgeting tasks. Financial executives may even have to overwrite figures being proposed by project managers due to historical, current, or predictive data analysis. But without an ERP system to facilitate these practices, the CFO wouldn't have the correct information available at the appropriate time – and that could have a tremendous negative impact on your bottom line.

Equipment, Labor, and Materials

If managed wisely, equipment, labor, and materials are variables that can help deliver projects on time and within budget. Tight controls and ongoing measurements can secure successful project delivery, resulting in a profitable business.

Heavy highway and civil contractors leverage a lot of equipment to deliver their projects, which can carry a substantial cost, whether they are purchased or leased. There may also be maintenance and associated costs to manage, not to mention idle and usage time. Construction-specific ERPs integrate with existing software applications designed to measure equipment productivity, with alerts on idle time and GPS location coordinates bringing increased visibility and transparency to these expenses, and maximizing the wise use of company resources.

Hired or contracted, human resources are every contractor's largest expense. Labor costs can amass quickly, and adding overhead to manage labor expenses is tragic irony. That's why industry leaders utilize technology to capture labor time and calculate productivity and costs.

ERP systems provide the means to hire, maintain, manage, and pay employees, as well as report on performance. Advanced business intelligence tools can help CFOs monitor daily labor costs, productivity, dollars for man hours, and more. This information can be analyzed per project, per crew, or for the entire organization. In addition, such software can help contractors provide reports needed to comply with government regulations or union rules.

Enterprise resource planning systems can also aid contractors in purchasing materials, tracking inventory, calculating costs, and controlling unit costs.

Implementation Inside and Out

Contractors are merging, acquiring one another, and engaging in joint ventures in order to expand their competitive reach, to achieve new growth goals, or to differentiate themselves among the masses. And, as these companies come together or expand across multiple locations and geographies, the ability to share data only becomes more paramount.

Indeed, communication between companies, employees, end users, and vendors is a prerequisite for success. In order to deliver projects in today's world, contractors need a scalable and flexible system that allows them to interact seamlessly across all facets of their business. ERPs allow you to automate processes and make working together a truly unified art form.

But enterprise resource planning systems are only as effective as their access points, and companies must be able to share data anytime, anywhere. For many firms, cloud-based ERP implementations remove the last of their data-driven hurdles by allowing them to forego the need for hardware, software installations, and traditional computer terminals. A secure internet connection is all that is needed to deliver each and every project successfully.

The Life of a Construction Project

We tend to think that there is a beginning and an end to every construction project. But is it really that simple? Some old projects grow into new ones, while others initiate even more. And there are plenty of job sites that need renovation, maintenance, or even rebuilding.

The point is that project delivery is an ongoing component of your construction business, and should be treated as an organic process. Information must be constantly presented in real time, processes must be automated and active, and the systems managing your business must always be available.

Contractors who rely on paper, fax, mail, duplicate data entry, spreadsheets, and disconnected software systems cannot successfully partake in the project delivery continuum. They will not be able to learn from the past, measure today, and predict tomorrow. Construction-specific, enterprise-class ERP systems with cloud deployment, strong business intelligence capabilities, and integrated financial and operations applications are the only way you can manage today and be successful tomorrow.

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