



Absence of Technology Highlights Construction Industry's Inefficiencies

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The construction industry has not been quick to adopt new technology, and a new survey shows that doing things the old way is proving detrimental to its cost management.

The survey from [Procore Technologies](#), a construction management software firm, and Dodge Data & Analytics showed that Canada led the way of all regions surveyed, with 68% of respondents knowing where they are making or losing money on specific projects. Thirty-two percent of respondents stated they have trouble determining appropriate contingency dollars; 31% could not accurately estimate the cost of activities; 31% could not track every facet of the project, thereby adversely impacting the project's overall cost; 29% couldn't control project cash flows; and 26% had difficulty understanding where they made or lost money.

“What that bucket tells you is, because of the complexity inherent in construction, if you don't have technology and tools in the field to collaborate on the job site, that's where things get missed and where potential change could happen on the job site,” Jas Saraw, Vice President, Canada at Procore.

Saraw says the benefits of centralizing communication between the central office and construction site even extend to benchmarking cost performance for future projects by leveraging data. On the executive side, performance and cost data could be used to ameliorate the company's bottom line.

“A good example would be a CEO or president who sees a leakage in the project and its impact, as well as who or what the offending cause was, and they could then engage in risk mitigation practices to ensure that doesn't happen again,” Saraw said.

Streamlining every aspect of a project by bringing together all stakeholders on a single platform could decrease inefficiencies — something the [Residential Construction Council of Ontario](#) (RESCON) has been lobbying for.

RESCON is a proponent of using BIM technology, which has made [headlines](#) in the architecture, engineering, and construction space for its ability to augment productivity and efficiencies by reducing the time required to generate an expenditure quote by 80%, cutting unbudgeted project changes by as much as 40%, generating time savings of up to 7%, and accurately estimating costs to within 3%.

“Imagine you’re on site and, as the builder, you want to add on three more floors and windows, so you mark it up on the iPad and go right into the system to spec new products and it will re-do your energy modelling right away and immediately update your purchase order,” [Richard Lyall, President of RESCON](#), said. “Also, with BIM, mechanical, electrical, plumbing and everything else is on the same platform, and when you receive bids and designs from various engineering companies, the BIM system will automatically do a ‘clash analysis,’ so you don’t have these surprises during construction where you get a water pipe going through an electrical junction.

“It sorts all those things out and makes it that much more efficient, and makes your ordering and logistics more efficient. The BIM platform also has the electronic Gantt charts for all your scheduling, and then all the trades, the builder, everyone, can all communicate on that same platform.”

Lyall added that energy remodelling could be done in hours on the platform instead of months, like it currently takes.

[RESCON](#) has long advocated for a faster permitting and rezoning process in the City of Toronto — the organization maintains that the years-long delays add on to the overall cost of projects, exacerbating affordability challenges — and Lyall believes BIM could expedite the process instead of dealing with the municipal governments’ various agencies, which he says all have a hand in the pie and, themselves, create inefficiencies.

“If you have the whole building and planning approvals process on that platform, that would save a huge amount of time — it would save years overall in getting projects approved,” he said. “You can make that even better, in terms of the timeline, if you streamline the zoning, site plan and approvals process and make it more efficient.”