Deloitte.

Predictive project analytics

Will your project be successful?

Contents

A new approach to reducing project risk

Most corporate executives understand that business growth hinges on an organization's ability to effectively manage major capital investment campaigns, changes to business processes and the adoption of new technologies. Yet, despite their inherent strategic importance, these very projects frequently experience cost overruns, run late or fail entirely.

The reasons for project failure are diverse, ranging from poorly defined requirements, lack of access to specialist resources and competing priorities to the constant pressure in-house teams face to deliver more quickly at lower cost. Whatever the cause, the consequences of project failure can be severe – including significant unforeseen costs, operational failures, regulatory non-compliance with potentially accompanying penalties, customer dissatisfaction and loss of competitive advantage or market share.

Given these potential severity of these repercussions, leading organizations have always searched for ways to keep their projects on track. Research studies provide insight into the factors that contribute to success and failure, but cannot predict the outcome of a particular project. Traditional risk assessments deliver expert opinions related to project outcomes, but cannot pinpoint specific control gaps that can cause a project to go off the rails. And virtually no tools exist that can help organizations identify in advance which projects will fail and how to get them back on track.

Until now.

Research illustrates that in 2010 alone:

21%
of projects were cancelled prior to being delivered or were never used

Only
37%
of all projects succeeded in delivering the required functionality on time and on budget

46%
of projects were over budget

63%
of projects were either challenged or failed

71%
of projects were delivered late*

Benchmarking project success

Research shows that project success hinges on a range of factors, including the project's inherent complexity, the project team's capability level and the maturity of existing controls and governance processes. So it stands to reason that your organization could mitigate project risk, reduce the incidence of failure and close gaps if you could accurately benchmark your capabilities in each of these areas against similar projects.

To help you achieve this, Deloitte compiled a predictive project analytics database that contains detailed information on thousands of completed projects, categorized by project type, complexity, management approach and outcomes. By empirically analyzing your project and comparing it to our database, the system provides you with an objective assessment of the inherent complexity and management characteristics of your project to help you determine whether you're on track for success or failure. Deloitte's professional analysis of the analytic results can then suggest what steps to take to improve your chances for success.

By comparing your current performance levels against predicted required levels, the tool can help pinpoint specific gaps, hidden obstacles and missing controls in 28 different areas, such as budgeting, scheduling, risk management and team capabilities. This allows you to determine the specific improvements or investments you need to make to increase the likelihood of project success. It also enables you to identify areas of over-investment, where you can spend less effort without affecting project results.
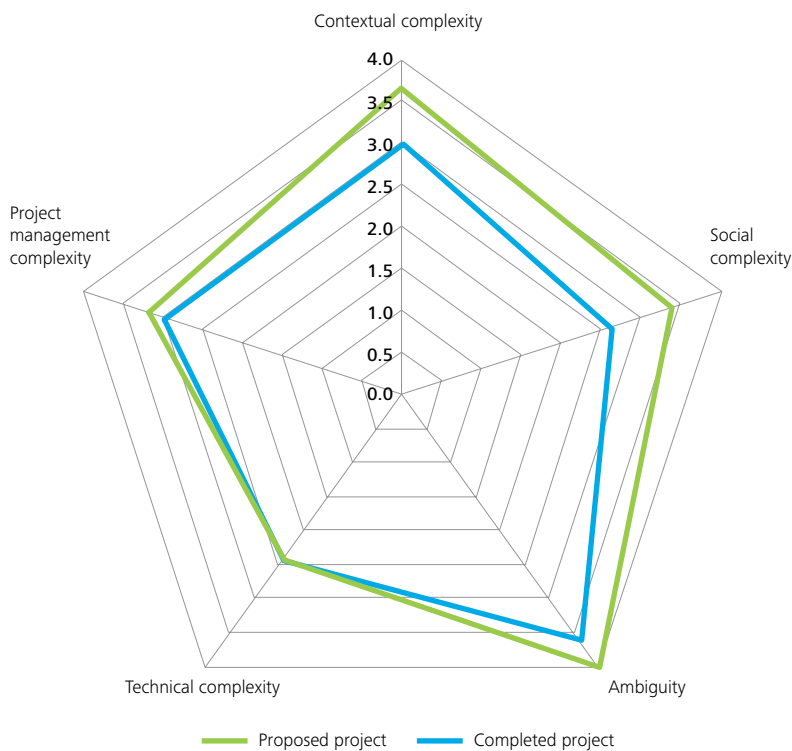
To help you achieve this goal, Deloitte compiled a predictive project analytics database that contains detailed information on thousands of completed projects, categorized by project type, complexity, management approach and outcomes.

Effective risk management and success is all about performance…

Following an in-depth review of recent research on project success rates and factors, Deloitte found a strong correlation between project complexity and project outcomes. Probably no surprise was the fact that more complex projects do fail more often. Oddly enough however, it's not the complexity itself that creates failure; it's not having the right people and controls in place. Research shows that a team that succeeds on a low-complexity project may fail as project complexity rises. Simply put, more complex projects require higher degrees of project management and control to succeed.

Project complexity comparison

Radar chart comparing Proposed project (green) and Completed project (blue) across five axes: Contextual complexity, Social complexity, Ambiguity, Technical complexity, and Project management complexity. Scale 0.0 to 4.0.
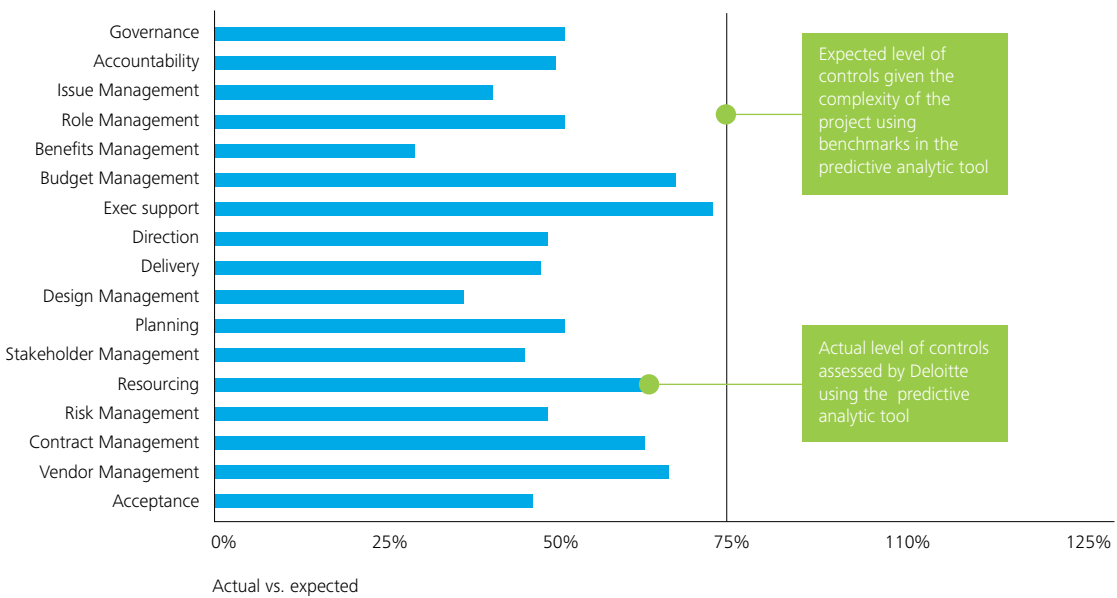
Legend: — Proposed project — Completed project

Here's how it works:

Our five-stage predictive analytic methodology lets us assess your project team capabilities, predict your project's required maturity levels and clearly identify ways to manage project risk and control costs.

- We begin by performing a detailed assessment of your project's risk and complexity to determine the level of controls and governance you need to have in place to deliver a successful project.
- This assessment is augmented by a series of interviews with key project team members and stakeholders, and further bolstered by a review of core project artefacts, such as plans, reports and logs.
- Next, we enter all this background information into our predictive project analytic tool, which produces a correlation between project complexity, controls and success using a database of thousands of projects, and then we incorporate an effective assessment of softer factors such as leadership and decision-making.
- By aggregating the outputs from our structured, experiential review and our predictive analytic tool, we gain a broad, deep view of your key unmitigated project risks and identify specific control/governance improvements that can help you achieve a successful outcome.
- Finally, you receive the findings in the format of your choice. Our objective is to avoid clichéd project commentary. Instead, our reports provide practical recommendations and prioritized actions that allow you to immediately address or avert specific identified project risks.

Comparison of project control maturity against maturity needed for success

Expected level of controls given the complexity of the project using benchmarks in the predictive analytic tool

Actual level of controls assessed by Deloitte using the predictive analytic tool

Actual vs. expected

Reining in project risk

Predictive project analytics work extremely effectively at the start of a project by helping you build the competencies you need to enhance success. However, the tool also adds value throughout the project lifecycle. By conducting this analysis during the course of a project, you can bring a floundering initiative back on track. Similarly, by assessing your project towards completion, you can avoid launching an initiative prematurely.

No matter when you leverage predictive project analytics, you position your organization to:
- Gain an objective overview of your project risks and exposure areas so you can close identified gaps
- Enhance project outcomes by prioritizing actions most likely to help you achieve success
- Realize early value from your projects by identifying specific measures you can take to keep projects on track
- Minimize potential financial, productivity and reputation-based losses by improving project oversight
- Drive greater organizational efficiency by eliminating unnecessary project characteristics and strengthening internal attributes that contribute to project success
- Reduce risk by assessing your project relative to those with similar attributes
- Benchmark your project against a database that includes engineering, capital works and technology projects and is effective regardless of project type

For every $1,000 spent on a project, roughly 1.5 decisions are required: How do you know you're making the right ones?

Real-world results

To give you an idea of how predictive project analytics work in action, take a look at these real-world case studies:

Post-implementation review
Following the failure of a challenging project, this client asked Deloitte to carry out a post-implementation review.

By deploying our predictive project analytics system retrospectively, we were able to identify the issues which led to the project's failure.

This allowed us to compare the completed project against a scheduled upcoming project. Given the higher degree of complexity involved, we determined that the new project needed a much higher level of control and governance process to succeed. We then performed a predictive analytic review of the new project early in its lifecycle to determine in more detail what specific controls would be required. As a result of this analyses, the client was able to apply lessons learned from its troubled project to avoid similar future failures.

Project quality assurance
In an effort to ensure project success, this large company engaged Deloitte as a project quality assurance provider to assist it in carrying out a major finance transformation and ERP implementation. As part of our initial project risk review, we assessed the project using our predictive analytic tool.

The tool suggested that there were a small number of fundamental complexities within the project. These included implementing a solution which had never been attempted before, and engaging a systems integrator and project management team unfamiliar with the core elements of the proposed solution. Our analyses allowed us to identify key project management process improvements to help the client resolve these complexities.

By applying our predictive project analytics system retrospectively, we were able to identify the issues which led to the project's failure.

From opinion to objectivity

The next level of project risk management

Consultants have been predicting project risks and suggesting mitigating strategies for years, based on experience, knowledge and various risk methodologies – now we have tool that goes beyond individual expertise to provide comparative measurements against other projects across multiple categories.

The database provides objective data, not opinion. It's a benchmarked process that can clearly indicate where your project is missing controls and where it might go off the rails. And it's the only such tool available. If you have a critical project in process or in the planning stage, Deloitte's predictive project analytics tool can help your organization achieve success by objectively determining and mitigating the agents of failure.

Consultants have been predicting project risks and suggesting mitigating strategies for years, based on experience, knowledge and various risk methodologies – now you can access not only to the professionals but the tool that goes beyond individual expertise.

Next steps

We can analyze your project, compare it to our database and tell whether it resembles a project which went on to succeed or fail. Deloitte's Project Risk and Governance services team has assisted a range of organizations successfully achieve their project objectives, from long-term complex projects to short-term initiatives. For more information on Deloitte's predictive project analytics tool, please contact our Canadian leaders:

National & Global
Project Predictive Analytics
Gabriel Rodriguez
Partner – Enterprise Risk Services
+1 416-601-6301
garodriguez@deloitte.ca

Toronto
Angela Moch
Senior Manager
+1 416-601-5687
amoch@deloitte.ca

Cary Mamer
Canadian Capital Project
Services Leader Partner
+1 403-267-0570
cmamer@deloitte.ca

Gord Sandford
Partner
+1 416-874-3325
gsandford@deloitte.ca

Atlantic
Kendra MacDonald
Partner
+1 709-758-5141
kendmacdonald@deloitte.ca

National Capital Region
Keith Davis
Partner
+1 613-751-5308
keidavis@deloitte.ca

Greater Montreal Area
Umberto Delucilla
Partner
+1 514-393-5171
udelucilla@deloitte.ca

South Western Ontario
Jim Pryce
Associate Partner
+1 519-650-7779
jpryce@deloitte.ca

Winnipeg
David Sachvie
Partner
+1 204-944-3623
dsachvie@deloitte.ca

Saskatchewan
Karen O'Brien
Partner
+1 306-565-5208
kaobrien@deloitte.ca

Alberta
Don MacPherson
Senior Manager
+1 780-421-3661
donmacpherson@deloitte.ca

Paul Zonneveld
Partner
+1 403-503-1356
pzonneveld@deloitte.ca

Greater Vancouver Area
Tejinder Basi
Partner
+1 604-640-3255
tbasi@deloitte.ca

www.deloitte.ca