EXECUTIVE SUMMARY

A successful engineering company with a few hundred employees and a portfolio of projects of varying sizes for multiple clients needed to improve the *accuracy*, *timeliness*, and *quality* of its project, program, and portfolio reporting.

The company's current reporting inconsistencies were delaying issue identification and management, hindering strategic decision-making for program and resource planning, and inhibiting client confidence, which resulted in delayed invoice payments and lost revenue opportunities.

The company wished to create a reporting structure that could meet or exceed all internal and external reporting requirements.

After the company's issues, concerns, and objectives were understood, an analysis was conducted that included interviews of the relevant stakeholders, evaluations of the company's systems and processes, and reviews of multiple project and program reports.

The assessment's findings confirmed that there were opportunities for improvement, and it was recommended that the company consider:

- ⇨ Creating a standardized information management (IM) and reporting methodology
- ⇨ Incorporating a company-level work breakdown structure (WBS)
- ⇨ Implementing a single, fully-integrated project management information system (PMIS), and
- ⇨ Enhancing project-, program-, and senior-management knowledge of project management and project controls processes, principles, and norms

These four items establish the plan, structure, tools, and knowledge from which high-quality reporting is derived, and high-quality reporting can lead to improved decision-making and proactive project management, enhanced client relationships, and increased company profits.

The implementation of these principles and subsequent centralized portfolio reporting structure directly resulted in accurate, timely, high-quality reports that:

- ⇨ Provided comprehensive program information for decision-making and planning
- ⇨ Helped substantiate and expedite payment of about $4 million in overdue invoices
- ⇨ Promoted the extension or addition of approximately $40 million in new purchase orders
- ⇨ Directly influenced the award of a five-year $50-80 million contract extension

CASE PROFILE

This company, with between $50-100 million in annual revenue, is regarded as one of the premier engineering companies in its industry and area. It has a few hundred employees and a portfolio of projects of varying sizes for multiple large clients.

In recent years, however, the lack of accurate, timely, and high-quality reporting was hindering decision making and creating communication and trust issues within the organization and in its client relationships.

The company's project-, program-, and senior-management did not have reliable, real-time, information to make strategic, forward-looking decisions.

Client representatives had difficulty knowing and validating project or program status – including progress, costs, and forecasts – resulting in delayed invoice payments and lost revenue opportunities.

These are not uncommon problems for companies with portfolios of diverse projects for many different clients. Companies generally focus on their core competencies and main activities. The reporting functions are support activities and may not be regarded as high-priority recipients of valuable time and resources. However, as this case will illustrate, sound reporting can lead to improved decision making and proactive project management, enhanced client relationships, and increased company profits.

For this case, the issues and concerns can be summarized as:

- Incorrect and inconsistent reporting data
- Poor report presentation quality
- Consistently late report submittals
- Large resource commitments required
- Delayed issue identification and management
- Difficulty with strategic decision making for program and resource planning
- Lack of client confidence in project and program reporting, estimating, and invoicing resulting in delayed invoice payments and lost opportunities

OBJECTIVES

The company's objectives for this case were to have accurate, timely, high-quality reports that promote issue identification and management, provide company-wide information for decision making and planning, and encourage client confidence.

The reports should not be labor-intensive to generate. They should provide all levels of internal management with information required for their varying uses, including project and program management reporting, functional management reporting, and senior management and corporate reporting. They should meet or exceed all external client project and program reporting requirements. And they should highlight issues or concerns as soon as possible, allowing time for corrective actions.

ANALYSIS

Once the company's issues, concerns, and objectives were understood, interviews were conducted with several project-, program-, and corporate-reporting stakeholders. These included representatives from human resources, accounting, project controls, project management, program management, functional management, senior management, and multiple clients.

Along with the interviews, evaluations were performed of the systems and processes used, incorporating system and process diagrams to understand all input and outputs. Then multiple project and program reports were reviewed for content, formats, and quality.

These discussions and reviews helped gain an understanding of:

- How reporting requirements are determined and revised (contracts, team members, etc.)
- How reporting requirements differed from client to client (both internal and external)
- From which systems – HR, accounting, project management information systems (PMIS) – report data were extracted
- What processes governed these systems
- What tools (Excel, Access, etc.) were used to manipulate data after extraction
- What resources performed the report generation and review
- What report formats were used and what information the reports provided
- How report formats and information differed among projects and programs
- How the reporting compared to other common reporting in the industry

FINDINGS

After completing the analysis, the following items were identified:

- There was no standardized information management (IM) methodology.
- There was no company-level work breakdown structure (WBS). There was, however, a functional cost breakdown structure (CBS) and resource breakdown structure (RBS).
- There was no single, fully-integrated project management information system (PMIS).
- There was a general lack of knowledge of project management and project controls processes, principles, and norms. The project and program reporting was inconsistent in adhering to these principles.
- Project controls specialists and other project team members were habitually re-creating portions of reports from scratch every report period.
- There was very little data-validation or automatic error-checking utilized in the reporting files.
- A separate reporting system was used to extract data from the accounting system, increasing the probability for inconsistencies and errors.
- Many errors were discovered on reports in various programs for multiple clients; some had gone un-corrected for substantial periods of time.
- When discovered, small errors could take days to fix. The corrected data was often never communicated to clients and other end users.
- There were many inconsistent formatting and other quality issues. Project teams often had to re-learn how to interpret project reporting when alternating between programs or clients. This included inconsistent acronyms, formulas, etc.
- Due to inconsistent project controls information, project managers were doing their own reporting, rather than focusing on decision-making and successful execution of their projects.
- Senior management would request the same information from different sources.

RECOMMENDATIONS

When reviewing the case findings, a few main opportunities for improvement were discovered. These included:

- ⇨ Creating a standardized information management (IM) and reporting methodology
- ⇨ Incorporating a company-level work breakdown structure (WBS) used to categorize and group clients, programs, and projects
- ⇨ Implementing a single, fully-integrated project management information system (PMIS), and
- ⇨ Enhancing project-, program-, and senior-management knowledge of project management and project controls processes, principles, and norms

These four things are important because they manage the information that is the basis for all reporting; **sound information management methodology, structure, tools, and knowledge drive successful reporting.**

A standardized information management methodology can guide an organization's use of processes and systems and set the stage for success – much like a well-developed project plan. A company-level WBS provides a hierarchical grouping and coding framework that works in concert with the company's CBS and RBS to correlate all information from different systems and sources. A fully-integrated PMIS is the tool that gives companies a mechanism for comprehensive project data administration – including funding values, budgets, earned values, actuals, forecasts, etc. Enhanced knowledge of project management principles provides the wherewithal to bring together the methodology, structure, and tools. The combination of these factors leads to project and company success.

Establishing this foundation will prevent years of unnecessary complication and expense, and will forever reduce the amount of resources and required time for report preparation, allowing more time for analysis and proactive project management.

Enacting these four main recommendations will stimulate corrective actions and promote sound behaviors for all the findings of this case. Additionally, having sound information management could allow the company to establish a competitive advantage by providing reports and information that consistently exceed clients' expectations.

High-quality reporting can lead to improved decision-making and proactive project management, enhanced client relationships, and increased company profits.

RESULTS

The company is currently working towards enacting these four recommendations company-wide. In the interim, a centralized portfolio reporting structure has been implemented for two of the company's largest programs that account for about half of its annual revenues.

First, an information management and reporting methodology was developed. Then a program-specific work breakdown structure was created – to which all relevant project and program information was mapped. This methodology and structure were then incorporated in the construction of an integrated project management information system that was developed specifically for these two programs. Lastly, the appropriate program stakeholders were introduced to the new resulting reports, their contents, and the guiding project management principles.

The implementation of these principles and subsequent centralized portfolio reporting structure directly resulted in accurate, timely, high-quality reports that:

- Provide comprehensive program information for decision-making and planning
- Helped substantiate and expedite payment of about $4 million in overdue invoices
- Promoted the extension or addition of approximately $40 million in new purchase orders
- Directly influenced the award of a five-year $50-80 million contract extension

PM AREAS

The following PM Areas were addressed in this case:

- Project Evaluation
- Scope & Deliverables
- Estimates & Proposals
- Budgets & Schedules
- Change Management
- Progress & Performance
- Cost Management
- Forecasting
- Information Management
- Labor & Resource Planning
- Contracts & Procurement
- Subcontractor Management
- Logistics
- Reporting
- Risk & Issues Management
- Closeout