Case Study
IT Project Governance

Advanced Management Insight℠

Case Study for Computer Aid, Inc. (CAI)

Company Profile

CAI is a global IT services firm that is currently managing engagements with more than 100 Fortune 1000 companies and government agencies around the world. Specific CAI offerings include balanced outsourcing solutions, legacy support, application development, knowledge capture, desktop services, and managed staffing services. CAI's ability to provide on-time and on-budget results have been critical to success for over 25 years. CAI's unique methodologies and tools provide clients with real techniques for increasing productivity, profitability, and competitiveness.

Headquartered in Pennsylvania, with offices and staff throughout the United States, Canada, Europe, and the Asia Pacific region, CAI offers a variety of delivery options including on-site, off-site, and blended solutions. Our Solution Delivery Centers are successfully leveraged to enable our global staff of 3,000 technical and managerial professionals to quickly and effectively respond to client requirements.

Business Situation

CAI maintains multiple Solution Centers to provide customers with the "virtual capacity" to quickly respond to development and maintenance requirements. These enable CAI to provide customers with a flexible environment for strategic advantages. Virtual staff resources at one or more of our Solution Centers support on-site core team members. An entire project team can be located at one or more Center. CAI's Solution Centers are located in the United States; Manila, Philippines; and Shanghai, China.

As a result of increased competitive pressure, technology savvy clients, and tightening margins, CAI's Solution Centers needed to improve service and reduce costs. Increased project governance was key to success. Focused areas of project governance that were addressed included:

- **Establishing** the basis for project governance, approval, and measurement — including defining roles and accountabilities, policies and standards and associated processes

- **Evaluating** project proposals to select those that are the best investment of funds and scarce resources and are within the firm's capability and capacity to deliver
- **Enabling**, through resourcing of projects with staff and consultants, harnessing and managing of business support and the provision of the governance resources
- **Defining** the 'desired business outcomes' (end states), benefits, and value — the business measures of success and overall value proposition
- **Controlling** the scope, contingency funds, overall project value, and so on
- **Monitoring** the project's progress, stakeholder's commitment, results achieved, and the leading indicators of failure
- **Measuring** the outputs, outcomes, benefits, and value — against both the plan and measurable expectations
- **Acting** to 'steer' the project into the organization, removing obstacles, managing the critical success factors, and remediating project or benefit-realization shortfalls
- **Developing** the organization's project delivery capability — continually building and enhancing its ability to deliver more complex and challenging projects in less time and for less cost while generating the maximum value

Technical Situation

CAI had manual-based Project Governance procedures in their Solution Centers. Metric data collection was via face-to-face communications and e-mail. Often, new teams form in these centers. A long-standing resource management challenge is training new team members to perform in a consistent and repeatable manner. This issue occurs not just at CAI but across the IT industry (Sein et al, 1998; Lee, 2008). Often new team members need to re-learn the same processes by making the same mistakes made previously – not because they need to learn from their mistakes, but because processes to capture previous mistakes and translate them into employee training are often costly, time-intensive, and overlooked (Lee, 2008).

Solution

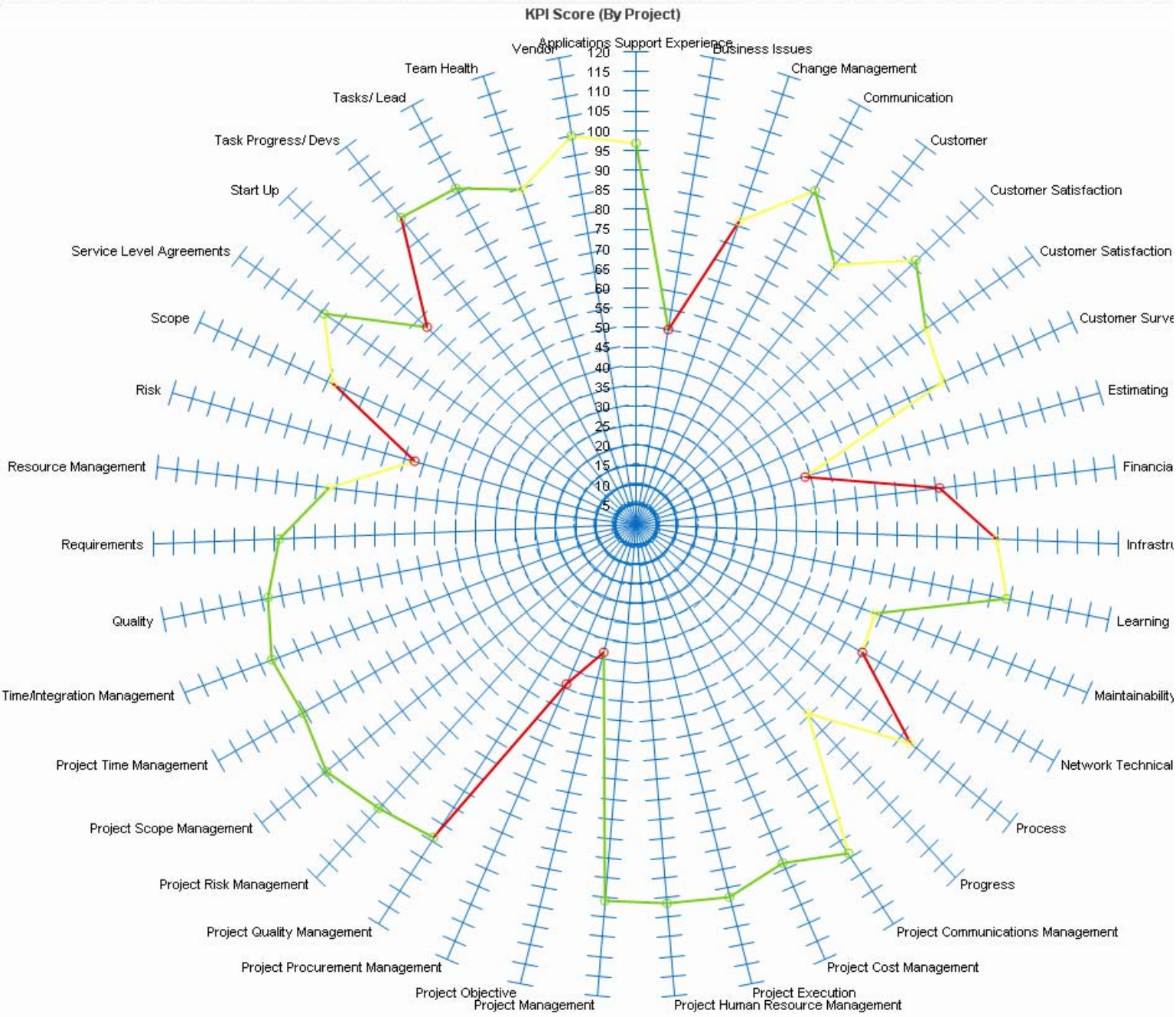
CAI chose to implement Advanced Management Insight (AMI) in their Harrisburg Solution Center in 2007. Initial implementation was eight large projects. The system was used 'out of the box' for nine months. Based upon feedback received and

utilizing AMI authoring tools, the system was customized with specific questions, rules, and dashboards in December 2008. The customization included:

- Monthly Developer Procedures
- Monthly Project Management Procedures
- Weekly Execution Assessment for the Developer
- Weekly Execution Assessment for the Project Manager
- Rolled out to all projects in the Harrisburg Solution Center in January 2009
- 75+ people responding to questionnaires
- 400+ questionnaires taken per month (weekly and monthly based questionnaires)

Benefits

Management now determines the key performance indicators (KPIs) they wish to track. Data collection and subsequent scoring of the responses ascertains the KPI values; and they can be viewed by organization and individual project. Based upon predetermined thresholds, the KPIs are indicated by green, yellow, and red to indicate their 'health.' In the screen shot below we see that "Business Issues,' 'Estimating,' 'Financial,' 'Network Technical Support Expert,' 'Project Objective,' 'Project Procurement Management,' 'Risk,' and "Start Up' warrant immediate investigation.


KPI Score (By Project)
Vendor
Applications Support Experience
Business Issues
Change Management
Communication
Customer
Customer Satisfaction
Customer Satisfaction
Customer Surve
Estimating
Financia
Infrastru
Learning
Maintainability
Network Technical
Process
Progress
Project Communications Management
Project Cost Management
Project Execution
Project Human Resource Management
Project Management
Project Objective
Project Procurement Management
Project Quality Management
Project Risk Management
Project Scope Management
Project Time Management
Time/Integration Management
Quality
Requirements
Resource Management
Risk
Scope
Service Level Agreements
Start Up
Task Progress/ Devs
Tasks/ Lead
Team Health
120
115
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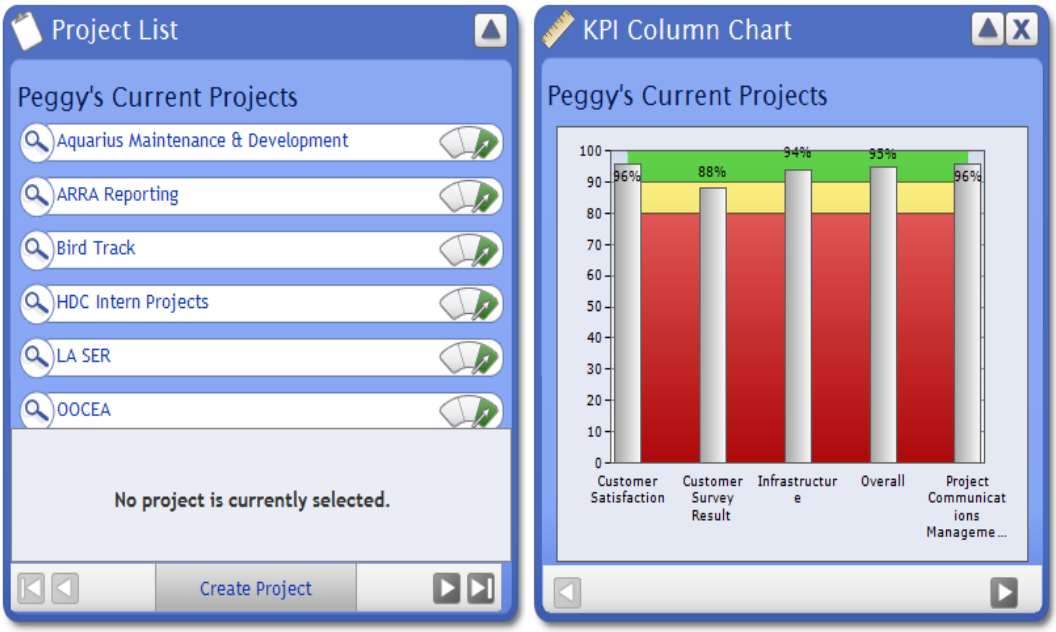
Through Dashboard visualization, project risks and issues are identified early. The chart on the left shows that all selected projects are performing well. The chart on the right shows that all selected KPIs are in the green.

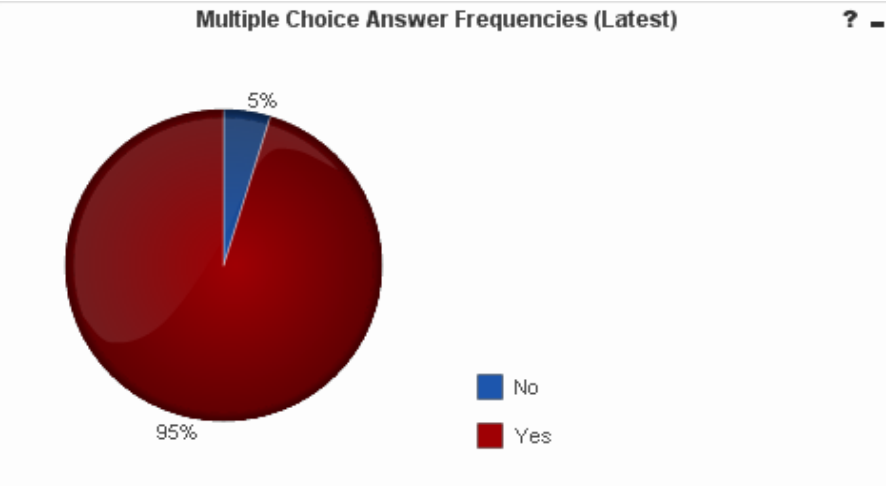


Seeing something on the high-level visualization that merits further explanation enables the user to drill down into the details of who responded to a selected question and how they responded. Below we see that 5% of the people responded "No" to the question, "Are reliability requirements defined?" Previously this root cause analysis was not attainable or it necessitated meetings and lengthy discussions; and the management team was not aware of inconsistencies among the team. This provides management with that view.

Questions

Are availability requirements defined?

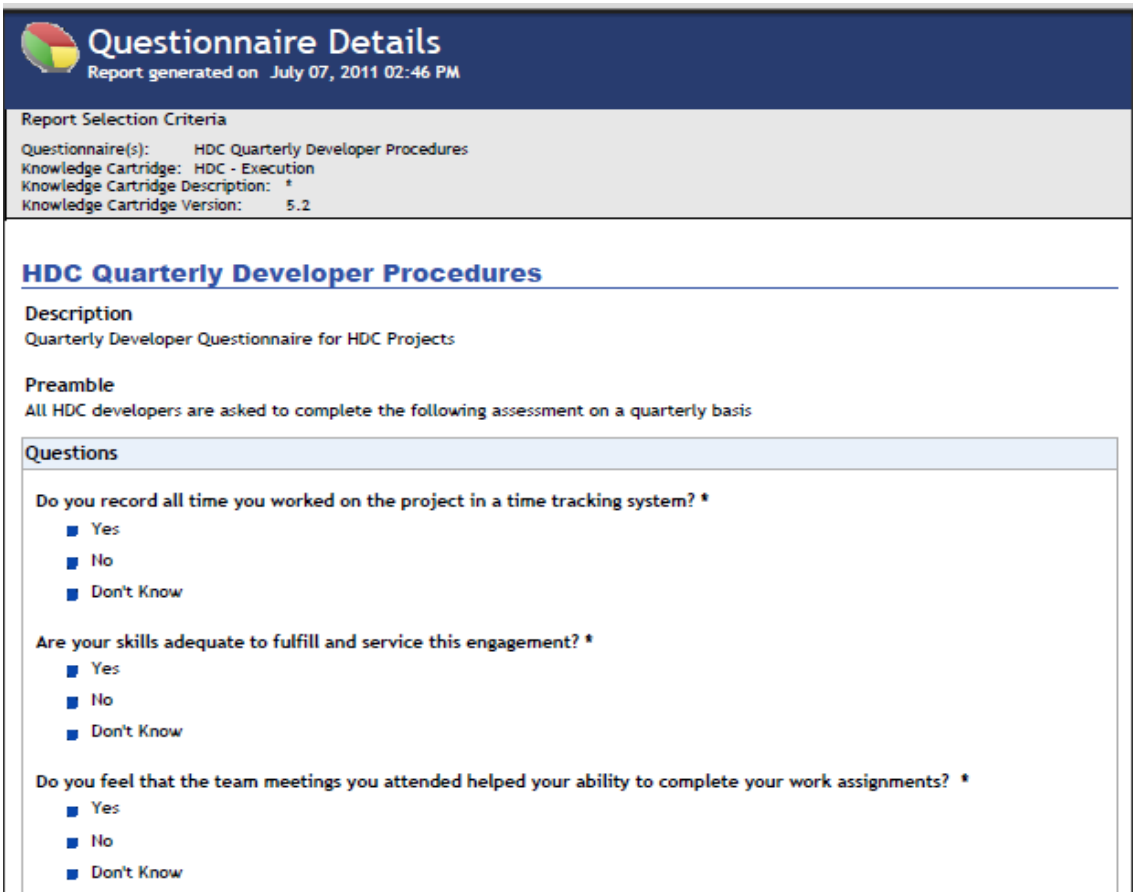
Respondent	Role	Response	Date & Time
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:14:59 PM
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:14:17 PM
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:16:23 PM
Bruck, Peggy (ID:141)	HDC Delivery...	Yes	6/12/2008 11:38:06 AM
Bruck, Peggy (ID:141)	Project Manager	Yes	6/12/2008 11:38:06 AM
Kaiser, Evan (ID:180)	HDC Developer	Yes	6/23/2008 1:13:23 PM
Ordille, Tom (ID:179)	HDC Developer	Yes	6/23/2008 12:07:40 PM
Ordille, Tom (ID:179)	HDC PM/Lead	Yes	6/23/2008 12:07:40 PM
Bruck, Peggy (ID:141)	Project Manager	Yes	6/12/2008 11:53:01 AM
Bowers, Phil (ID:235)	HDC Developer	Yes	7/10/2008 12:21:10 PM
Mahon, Neil (ID:234)	HDC Developer	No	7/9/2008 12:21:18 PM
Zellers, Laura (ID:175)	HDC PM/Lead	Yes	6/12/2008 3:27:58 PM
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:42:29 PM
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:42:02 PM
Hesen, Eric (ID:23)	Project Manager	Yes	10/1/2008 6:42:57 PM
Gricks, Stacey (ID:28)	Project Manager	Yes	10/1/2008 1:02:04 PM



Prior to implementing AMI, project staff meetings occurred weekly or monthly. The resultant view of project status was not up to date. True status and knowledge of the critical issues was not apparent without full cooperation from all project staff. Communication seemed to be flowing only downward from management, and the staff felt as though they were not contributing to the success of the project.

Since implementation of AMI, project meetings occur on a weekly basis immediately after assessments are reviewed. Staff members now feel they contribute to the project's success and any issues raised are handled immediately. Issue resolution has increased by approximately 25%.

The following is a questionnaire that is e-mailed on a monthly basis to about 75 people aligned to our Harrisburg projects. This questionnaire ensures that our people are following our accepted procedures. This is sent to a predefined list based upon role and project assignments. Respondents are given three days to answer the questions. This process provides everyone with a 'voice' and a formal way to score and track their responses. This automated process results in improved communication and easy tracking for current and future trending analysis.



Questionnaire Details

Report generated on July 07, 2011 02:46 PM

Report Selection Criteria

Questionnaire(s): HDC Quarterly Developer Procedures
Knowledge Cartridge: HDC - Execution
Knowledge Cartridge Description: *
Knowledge Cartridge Version: 5.2

HDC Quarterly Developer Procedures

Description

Quarterly Developer Questionnaire for HDC Projects

Preamble

All HDC developers are asked to complete the following assessment on a quarterly basis

Questions

Do you record all time you worked on the project in a time tracking system? *

- Yes
- No
- Don't Know

Are your skills adequate to fulfill and service this engagement? *

- Yes
- No
- Don't Know

Do you feel that the team meetings you attended helped your ability to complete your work assignments? *

- Yes
- No
- Don't Know

Recent Successes

Since 2008, 56 project teams have used AMI. Client industries include retail, transportation, agriculture, health and human services, education, criminal justice, gaming, state and local government; and the U.S. Department of Defense.

Highlights

Unemployment Benefits – Two hurricanes hit only 14 days apart. The agency didn't function for a week. Employees didn't come to work and everything was cancelled. AMI quickly showed the project impact on developers, as key meetings and client decision points didn't happen. As a result of AMI, CAI immediately raised them to the client as a change request. This meant that upper management made the decision rather than going through the user process. Additional project costs were avoided as a result of using AMI.

Food Distribution – The proposal, contract, and kickoff meeting defined several technical environments as being identical, such as development, test, production software, and server integration. However, their performance capabilities weren't identical. A developer at a client meeting learned that another organization was providing a makeshift production environment for their system. The developer commented about this in AMI. The issue was then raised with the client. AMI allowed the client time to react and deal with the issue before infrastructure delays impacted the implementation schedule.

Electronic Tolling – The client was suffering from delays as a result of decisions not being made about data conversion files. This was impacting the conversion scripts used for test execution. These deliver test files to the client for application testing.

Day Care Rating – CAI aggressively bid to win new business that was based on a 10-hour work day. AMI identified the team that was utilizing new technology. The team members were not familiar enough with the new technology, and this was impacting the schedule. The latest release of the technology provided no additional value over the standard practice technology. The project schedule did not allow for time to introduce new technology to team members. The issues were resolved before rework and schedule slippage occurred. AMI also helped team morale to increase along with productivity.

Education Reporting – AMI uncovered communication issues between team members.

PMBOK KPIs

Key Performance Indicators Scores calculated on March 01, 2011 10:00 AM

KPI	Scores	Status
Customer Satisfaction	100%	Good
Infrastructure	86%	Warning
Overall	98%	Good
Project Communications Management	99%	Good
Project Cost Management	93%	Good
Project Human Resource Management	100%	Good
Project Quality Management	100%	Good
Project Risk Management	98%	Good
Project Scope Management	100%	Good
Project Time/Integration Management	98%	Good

Benefit Summary

- One well defined process for all projects
- Consistent measures
- Equitable ranking of projects
- Timely results
- Defined expectations
- Easily recognized trends
- Best practice processes
- Early identification of project risks
- Promotes project team collaboration
- Improved communication with off-site resources
- Gives a non-verbal voice to those that won't raise issues in weekly status meetings
- Facilitates project oversight
- Exception reports
- Peer Recognition

References

Lee, Y.M. (2008). Managing Workforce Resource Actions with Multiple Feedback Control Schemes. *Proceedings of the 2008 Winter Simulation Conference.*

Sein, M.K., Bostrom, R.P., & Olfman, L. (1998). Re-Conceptualizing Training for the IT Workforce of the Future.