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Integrating Process Mapping, KM, and Balanced Scorecards with Sarbanes-Oxley, By Nadia Uddin

Sarbanes-Oxley (SOX), a federal mandate, requires that company CEOs, CFOs, key executives, and managers including process owners sign off on internal controls that generate financial results. Whereas most U.S.-based organizations are in various stages of complying with SOX specifications, some approach the December 31, 2004 deadline as an opportunity to improve efficiency and bottom-line results by going beyond what is merely required to comply with Section 404. Leading organizations are using SOX as an opportunity to map their core processes and fundamentally improve those processes through knowledge management (KM) and balanced scorecards.

An excellent example is Crown Castle International, a leading independent owner and operator of shared wireless communications. It has integrated the disciplines of balanced scorecards, KM, and process improvement to comply with SOX, which has resulted in an overall improvement in its core processes and financial results.

“Organizations that already have laid a strong foundation are more easily able to comply with SOX and, in turn, run a better business,” said Carla O’Dell, president of the American Productivity & Quality Center (APQC). “For them, SOX isn’t just another cost to the system, but instead is actually one of those catalyzing events that lead to better business results. And I think Crown Castle International is one of those organizations. For those who don’t have those initiatives in place, the good news is that all these tools are available to help them.”

Integrating the Three Disciplines

Over the last 30 years, a number of deep, robust business approaches have helped organizations understand and visualize their operations and processes and manage them better. Three of the most enduring approaches are balanced scorecard, process mapping, and KM.

“The balanced scorecard innovation made it possible to look upstream rather than always operating in a rearview mirror,” said O’Dell. “With this initiative, the wattage went up from a 30-watt bulb to a 60-watt bulb.”

Combined with process mapping (a required activity for SOX), a balanced scorecard can reveal process measures and key performance indicators. “Here’s another powerful way to see organizations so that we can make them better, manage them better, and predict outcomes,” said O’Dell. “Process mapping turns the wattage up to 75 or 100.”

In 1995 came the innovation of understanding where and how knowledge flows in order for processes and indicators to work well. “Now we have very robust methodologies for understanding the process of knowledge flows,” said O’Dell. “That turns up the wattage to 150.”

With the approaching enforcement of SOX, some organizations are realizing that their processes are not well lit. On the other hand, “Organizations that already had the other pieces in place had the ability to up that wattage almost immediately,” said O’Dell.

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Crown Castle International: A Case Study

With operations in Australia, the United Kingdom, and the United States, Crown Castle International engineers, deploys, owns, and operates technologically advanced shared wireless infrastructures. It has a network of more than 15,000 broadcast and wireless transmission sites and offers services to clients such as Verizon, Sprint PCS, and Cingular.

Because of the nature of the business, Crown Castle International had to map several of its core processes to comply with SOX. With the help of auditors, the company then was able to identify where those processes generate financial results. Within the mapping initiative, Crown Castle International found that several individuals within the company developed innovative methods to complete projects, which revealed the entrepreneurial side of the company and created the opportunity for the transfer and standardization of best practices. And many individuals in the company expressed a need to capture that information, improve on it, and tie it to the company measures. Hence, the integration of KM and balanced scorecard (BSC) principles into SOX compliance efforts was an organic occurrence.

With 35 district offices, Crown Castle International wanted to ensure that projects followed the same processes so that the control points and documentation efforts stayed at a minimum. Bob Paladino, senior vice president of global performance at Crown Castle International, heads the group in charge of documenting the core processes with the process owners. "Our role is to standardize all the core processes [by] putting them in a KM context visible to everybody. And then, as a process improvement team goes through a certain process, they pull those documents and key off of those, update, and then put back an updated document," said Paladino.

The KM context Paladino referred to is the company's Web portal: CCI-Link. Crown Castle International has clearly defined core and support processes and developed process maps for each. "Each process map step is linked to a full-blown page that contains more comprehensive information that isn't just SOX, but SOX and how to improve the business," said Paladino. "It has about 20 elements such as the process name, owner, and purpose of the process step, training materials, how-to field guides, the actual step, controls steps for SOX, and the end-works products. It also has measurements that tie into a BSC. We are working continuously to update CCI-Link content; it is a living environment."

Access to this portal is available across the organization in order for everyone to understand specific processes and control points. "It's one script for all," said Paladino. "The global performance team facilitated SOX process owners to develop these inputs. CCI-Link has drop-down menus for the processes, the BSC, and best practices. So it's kind of a 'how-to' for different locations with consistent, repeatable information about our business. Again, the twist is that it is for SOX and process improvement."

Paladino described the benefit as having documentation on processes that the company would not normally have. Paladino said, "We're able to better work with people and identify where the issues are and kick off improvement projects. Right now, we have a significant effort on cycle time. For example, a carrier might want to put an antenna up to beat the competition. How long would this take? Two years ago, it would take us on average 365 days. Today, our U.S. average cycle time is 150 days, and some best-in-class systems have a cycle time of 60 days." This decrease in cycle time demonstrates massive savings and increased revenue for Crown Castle International clients as well.

Consequently, Paladino saw improvements to bottom-line performance: "Having all the process documentation at our finger tips has contributed to pulling forward our revenue. Our stock price has appreciated from \$1 to \$11 in the last year and has beaten leading market indexes by over 300 percent. We've actually been demonstrating our capability for increasing revenue and cash flow."

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What makes Crown Castle International's process mapping initiative different from other organizations is that it includes many other elements that other companies are not including, such as its balanced scorecard, measurement targets, training materials, and process ownership. These elements make SOX compliance a holistic approach. It is far more comprehensive because it establishes ownership and accountability.

Interwoven Disciplines

With Crown Castle International, its SOX compliance, KM, and balanced scorecard efforts evolved together and now work as interwoven, or concentric, circles.

When Paladino first came on board, Crown Castle International had a lot of material available in disparate locations; KM was an immature system. Today, "It has grown from humble beginnings to the fourth most used application in the company," said Paladino. "We had a million hits this year in a population base of 600 people in the United States alone. ...Each release has grown in terms of scope and context and usage. It's housed in Open Text's Livelink application, a global application. It's a great document management application, and we've leveraged that application for knowledge management. It gives visibility for all employees to access process information."

KM has evolved where Crown Castle International now has a global steering committee for governance that consists of the three country division leaders, Paladino, and functional representatives. The committee is redesigning its KM system so that it will have a fixed structure, with each screen being content-specific, so that the system is truly global.

After conducting an internal survey, the committee found a huge response to KM and CCI-Link and is now providing certain functional areas with their own communities of practice. Through the survey, the committee was also able to identify the top five issues with knowledge in the company (the highest issues being version control for documents and management). "We've kicked off more project teams to make improvements, and one is standardization for our taxonomy or keywords on our higher priority documents, such as customer agreements, so they are searchable," said Paladino. Overall, the survey allowed the team to focus its efforts.

Concerning balanced scorecards, Crown Castle International has gone from having a couple of country-specific scorecards to breaking it down to district-level scorecards (for 35 districts within the United States, for example), which allows the company to internally benchmark performance across the districts. "So when I mentioned before that we have a district that has a 60-day cycle time, we can catalog the best practices and make them available through our KM system to help raise the bar for everybody," said Paladino. "We have a gold-silver-bronze recognition program that provides visibility across the company for the best-performing areas and districts. The balanced scorecard program is five levels deep, with links to planning and budgeting, compensation, recognition, and KM."

For example, the organization has assigned owners to the measures. A licensing specialist, for instance, would own a certain measure for its impact on cycle time to ensure accountability. Such measures are linked to compensation and embedded in job profiles called success profiles.

Paladino also stressed the importance of sophistication within KM, balanced scorecards, and process mapping for SOX. "We're capturing our corporate memory. One of the benefits is capturing and harvesting that knowledge."

Benefits of SOX

SOX gives Crown Castle International a degree of confidence as an organization. Through the benefits of process mapping and KM, the company can execute orders within a shorter time

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frame. It can also track records of measuring performance, which gives it a competitive edge because the more promises Crown Castle International can keep for its customers, the more orders customers are likely to provide to Crown. This creates the classic reinforcing loop.

“When we have operations meetings and we’re talking about an issue such as cycle time, we’re talking about the same start and end dates,” said Paladino. “We’re all describing the same issue sets. We have one process that SOX helped codify, and now we’re focusing on how to improve the process. So everybody gets their mind around it easier.”

SOX provides pressure that pushes companies through a discovery process. “Not only is it the right thing to do, but there are also consequences for not doing it right,” said Paladino. “Companies can use SOX, KM, and BSC to identify their business practices and then challenge themselves to put in the control points that enhance their processes. It’s dual tract: one is compliance and the other is process improvement.” O’Dell highlighted a critical lesson learned from Crown Castle International’s example for other organizations working to comply with SOX. O’Dell said, “Great executives look at every challenge as an opportunity. Like Crown Castle, they will seize on SOX as an opportunity to deepen their process knowledge and to identify and share best practices.”

Nadia Uddin is a freelance writer based in New York City. She has written a number of articles and case studies for APQC including [Revitalizing Six Sigma: What Matters Most to the Business](#) and presentation proceedings for [Taking Knowledge and Best Practices to the Bottom Line](#).

About Bob Paladino & Associates, LLC.

Bob Paladino is a long time thought leader and implementation expert in the Corporate Performance Management (CPM) Balanced Scorecard field. His clients have won Hall of Fame Awards from Drs. Kaplan and Norton. Hall of Fame winners have been profiled in both of their recent best-selling books, as well as in Harvard Business School Press. He served at the Vice President & Global Consulting Practice Leader for Drs. Kaplan & Norton at the Balanced Scorecard Collaborative. He recently served as Senior Vice President, Global Performance for Crown Castle International and directed their global improvement programs to win the coveted Balanced Scorecard Hall of Fame and APQC Best Practice Partner awards. He is also an active speaker and is quoted and published in leading publications. He can be contacted below.

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