Why Utilities Should Transform the Project Management Office into a Supply Management Office
About the Authors

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Utility companies supply indispensable products and services including gas, electricity, and water. Their business models have seen dramatic changes recently due to increased focus on smart solutions for generation, distribution, and transmission of the products and services. Utilities face enormous pressure to meet escalating demands, which requires businesses to quickly complete new infrastructure projects while maintaining customer satisfaction levels.

Because of complexity, quantum of work, and timelines, most projects suffer delays. Some companies are able to address these issues, while others have to deal with cost escalation, terminate projects, or purchase from other service providers at higher cost and low margins. This white paper identifies the current role of project management offices (PMOs) in utility companies. It studies the problems utility companies face, and discusses why the PMO should be transformed into a supply management office (SMO) to meet these challenges.

The SMO balances characteristics of both the PMO and corporate performance functions. It is a centralized body with an organizational view as well as operational capabilities. Since it works in a more collaborative manner, its risk foresight capabilities are better than the PMO’s.

While utility companies struggle with changing circumstances such as the Smart Grid and ensuring adherence to environmental and government regulations, the SMO ensures collaboration with stakeholders, deals with issues and bottlenecks, aligns organizational vision to business unit (BU) activities, and proactively plans and manages risks of supply gaps.
Utility Industry – An Overview

Power and water infrastructure are key to economic development. According to the International Energy Agency’s World Energy Outlook, world electricity demand will increase by more than two-thirds between 2011 and 2035. With the world population to reach 7.5 billion by 2020, the gap between demand and supply of electricity will only increase.

For many emerging economies keeping up with the increasing demand for electricity is a huge investment challenge. The global power sector will need $17 trillion to meet this rising demand as well as replace ageing infrastructure in the Organization for Economic Co-operation and Development (OECD) member countries alone. A large part of global investment will go towards meeting water infrastructure needs, estimated at around USD 1 trillion for just the OECD and BRIC (Brazil, Russia, India, and China) countries by 2025.

To avert a potential crisis, many countries are moving to create a more competitive power market through a series of physical and regulatory changes. Policy makers and regulatory authorities are partnering with private players to boost power and water infrastructures and help meet the demand forecast.

Challenges Faced by Utility Companies in Meeting Demand

The dynamics of the utility industry have changed over the past three to four decades. Demand for power and water services has increased dramatically because of rapid urbanization, open economies, rising population, and industrial development among other factors. The need for additional supply comes at a time when plants are facing frequent shutdowns due to aging infrastructure. Critical infrastructure needs to be replaced at a faster pace.

Though business planning for new projects is generally completed on time, infrastructure projects fail to meet agreed timelines. Most projects run behind schedule with a very low bandwidth available for construction, testing, and commissioning activities. The reasons for project delays include:

- **Inadequate focus on internal processes**: Most utility companies are focusing on implementing Smart Grid solutions and effective ways to optimize distribution and transmission, rather than on internal processes. Delays in approvals, lack of delegation of authority, and lack of process level service level agreements (SLAs) lead to schedule slippage. Figure 1 depicting the typical business process cycle in a utility company shows that most departmental interactions are manual, leading to inordinate efforts being spent on non-value added activities, and a lack of accountability and responsibility. Utility companies therefore need to focus more on optimizing and monitoring internal processes to meet deadlines.

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- **Process silos:** Departments work in silos and focus more on their specific tasks and activities. There is a lack of collaboration and information sharing leading to increased delays and idle time. Individual departments do not have visibility into project status and progress. Often departments are informed about new projects very late in the cycle, resulting in inadequate time to plan and execute the task. Absence of a co-ordination team impedes the seamless integration of all functions and leads to asymmetry and lack of ownership.

- **Missing robust governance:** In most process areas, there is a clear lack of accountability, especially when projects are behind schedule or have problems. There is no defined body with the authority to take decisions and coordinate with all departments to avoid slippage in schedule. The escalation matrix is generally not followed properly which also results in ineffective governance. Insufficient collaboration obstructs tracking and control of the processes.

While many capital expenditure projects can go off track, utility projects are more vulnerable to delays as they depend on regulatory decisions. There is high cost involved, and the type of work, which encompasses new technology, skilled labor, and equipment and materials, has built-in uncertainties. Companies need a centralized body to oversee the capital expenditure cycle for effective project governance, management, and oversight.
Scope of the PMO

The PMO is usually the body established to address these challenges. Often, the PMO at utility companies monitors overall project performance, collects and archives project information, documents and drawings, and sets project management standards. However, the PMO’s role is limited to the project execution stage alone: it has no involvement in the business planning and contracting process. The PMO is not authorized to act as a single governing body.

How an SMO can Drive Performance

The PMO is required to play multiple roles: it needs to add strategic intent definition and organizational alignment to its existing role of managing operational excellence. If this is not viable, a centralized body is needed with both an organizational view and operational capabilities.

This calls for transforming the PMO into an SMO. The SMO has a more strategic viewpoint than the PMO, and balances both PMO and corporate performance functions. It is more proactive as it has a single view of the supply plan against the current state of projects. Since it works in a more collaborative manner, its risk foresight is better than the PMO’s. It also does not have the narrow view of corporate performance in silos. Figure 2 explains how the SMO adds value to the organization by meeting customer demands effectively.
Key Components of an SMO

As shown in Figure 2, there are three key components of an SMO:

**Strategic Alignment**

The strategic intent of an organization can be realized through the activities of its business units and supporting functions. Processes vary from function to function and have varying degrees of impact on strategy. Determining the strategic alignment of the business process is important in managing supply and keeping stakeholders focused. This provides a single view of the supply plan and aligns executive leadership with strategic objectives.

**Organizational Alignment**

Communication and coordination are key to managing complex projects. Processes need to be optimized; SLAs need to be set, adopted, followed, and monitored across the organization. Existing systems need to be integrated so that all performance measures can be calculated and stakeholders identified at an early stage to measure their readiness to perform and assess their impact on the overall project life cycle. The wrong choice can adversely affect project schedules and budgets. Process-change resistance, course correction due to evolving needs, leadership commitment, and effective communication channels are some outcomes of these activities.

**Operational Excellence Management**

Schedule integration enables ranking of projects and course correction as necessary. It results in on-time completion of projects, improved decision making by early risk identification and binding metrics that cascade from business planning to project teams and operations. Though the existing PMO function partially covers these activities, it does not include an organizational view, and has no control over other entities. The PMO is generally not able to take corrective action against process non-compliance by business units outside of its purview.

**Case in Point**

The company is a leading power and water utility service provider in Asia. It undertakes the operation, maintenance, management, expansion, and construction of seawater cooling systems; desalinated and treated water systems; sanitary and industrial wastewater systems; and electric power systems to provide essential utility services to industrial, commercial, and residential customers in industrial cities. The company wanted to redefine its operating strategy to meet its customer demand.

**Business Needs**

- Review the capex planning cycle and explore options for reduction in cycle time and enhancements in operational efficiency
- Develop the interface definition for the processes from customer relations to operations and define SLAs for all processes (existing level of 10 percent)
- Identify business process improvements encompassing workflow, quality assurance, and delegation of authority

**Solution and Benefits**

An in-depth analysis of the company’s organization structure using the three-phase approach of envision, analyze and design, and develop was conducted. Benchmarking, improving, and redesigning capex cycle processes ensured adherence to international standards and best practices. A centralized monitoring function (SMO) was established to overcome the limitations of the PMO function, and reduced the cycle time of major capex by 30 percent and minor capex by 50 percent. Additionally, the SMO mandated SLAs for all transactions against the current level of 10 percent transactions with over 95 percent stakeholder buy-in.
Conclusion

The SMO is an extension of the PMO; its implementation challenges are more strategic than operational. Based on functional responsibilities, its role overlaps some of the roles and responsibilities of existing key corporate functions. It might also become a ringleader for departments that are otherwise shielded behind never-ending operational duties. An industry which is more focused on minimizing blackout times will not easily welcome a separate entity responsible for setting accountabilities and monitoring compliances. However a structured approach incorporating organization redesign with proactive change management should address the apprehensions of stakeholders.

Given predicted needs, a radical revamp in current work practices is called for in the utility industry. An SMO has the scope to meet this challenge, go beyond the traditional role of the PMO, bring different departments under a cohesive whole, remove bottlenecks, align the organizational vision to business activities, and proactively plan and narrow supply gaps.

While the transformation from PMO to SMO is considered more necessary than welcome, its implementation depends largely on the leadership's commitment to move from a 'catch-as-catch-can' scenario to an integrated work environment. Is the utility industry switched-on enough to make the transformation?
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