



Drilling Down: Harvey Nash/CIO Survey

KPMG Global Energy Institute



The Harvey Nash/KPMG CIO Survey received more responses than any other IT leadership survey in the world. In 2016, more than 3,300 CIOs and technology leaders across 82 countries shared their views and experiences. The IT structure within an organization is changing and leaders have to stay innovative. In this edition of the KPMG Global Energy Institute's Drilling Down, **Mark Tackley-Goodman**, Principal-Advisory, discusses some of the implications arising from the challenges facing the industry and how CIOs can make room to support the type of technology transformation that will be required to drive improved business results.

1. Cyber threat is taking increasing prominence in IT budget discussions so how should companies optimize this investment vs. the risk profile?

Cyber threat continues to be in the top five business issues facing CIOs. However, within oil and gas, it is taking a noticeably lower profile behind the basic need to improve efficiency, cut costs and stabilize base IT.

Such is the level of board interest in this topic that it is easy to adopt a "punch list" approach to dealing with cyber threat as initial board reports will often identify a series of risks that receive specially approved funding to address. However, this is a high-risk strategy.

The speed with which the threat landscape is changing dictates that CIOs and CISOs adopt a more considered and programmatic approach together with regular board updates that report on both the changing threat landscape and the consequent modifications in remediation/investment strategies. This programmatic approach may take a little more initial effort to establish but will pay dividends within a few reporting cycles as the executive and the board gain confidence from the communication.

2. How can current cost optimization pressures be addressed most effectively?

Within the survey, the top two issues cited by oil and gas CIOs were operational efficiency and cost reduction. Given the engineering disciplines within the oil and gas sector, it is interesting to note that IT functions tend to lag other sectors in key areas that drive both levers. Leaders in these areas are typically high-technology companies, lower margin industries and the financial services sector: each of these having been driven to similar solutions by very different circumstances. In the oil and gas sector, some of the levers that can be used to drive cost, efficiency and reliability are:

1. Commercial optimization, especially related to software licensing, tax optimization, effort estimation, productivity measurement, personnel deployment optimization (internal and contract staff)
2. Automation and self-service, particularly in utility IT and IT operations management where modern IT service management and asset management tools can leverage to transform core IT management processes and results

The KPMG Global Energy Institute's monitor of key issues for decision makers in the global oil and gas sector. *Drilling Down* offers insight from KPMG thought leaders on the trends that are driving and shaping oil and gas companies today.



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About the GEI

The KPMG Global Energy Institute (GEI) is a worldwide knowledge-sharing forum on current and emerging industry issues. Launched in 2007, the GEI interacts with its over 30,000 members through multiple media channels, including audio and video webcasts, publications and white papers, podcasts, events, and quarterly newsletters. To become a member, visit www.kpmgglobalenergyinstitute.com.

3. Accelerated use of cloud strategies: the proven cost/performance of cloud solutions can be leveraged for IaaS and PaaS within oil and gas as it is in other industries that have similar operational and security concerns
4. Improved governance and discipline related to asset portfolio health, product life-cycle management, version refresh and business engagement in exploitation of IT asset functionality, applications enhancement
5. Improved systems development processes that enable innovation, speed to market and incremental development, whilst improving cost and risk profiles.

Addressed as a cohesive whole, these opportunities can realize large financial opportunities that can then support investment in innovation and digitization solutions that will derive significant business benefit. This will also enable oil and gas CIOs to play a recognized role in their company's digital revolution.

3. Where are the investment dollars best spent?

We see a significant opportunity within oil & gas for IT to play a much more significant role in the improvement of operational efficiency and commercial effectiveness across the value chain. KPMG LLP (KPMG) is working with clients in areas such as:

1. Predictive and cognitive analytics which can be directly applied to issues such as preventative maintenance, turn-around planning, field force enablement
2. Cognitive analytics in financial analysis and logistics
3. Internet of Things/Reliability & Integrity analytics
4. Robotic process automation, particularly in financial transaction processing, financial close, procurement transactions, HR support, Internal audit automation and other areas where the back office can be fundamentally transformed from a cost and effectiveness perspective
5. Tele-medicine support for remote operations
6. Engineering design simulation and complex logistics simulation that can be applied to issues such as integrated field planning or commercial optimization.

Having released costs, the CIO team can play a leading role in helping business leaders to explore how technologies can be applied to deliver tangible business benefit, with rapid implementation cycles and removal of outdated monolithic IT projects.

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4. What does the future operating model look like?

Our research and experience suggests that the IT function must fundamentally transform from a utility provider to become a value-focused advisory that actively helps the business to exploit information technology as a growth enabler/innovator and as a strategic differentiator. IT is at a crossroads: adapt to the new disruptive order or become marginalized and disintermediated.

In order to adapt, we are seeing IT functions transform from a traditional "plan/build/run" model of IT into an operating model that becomes a broker, an integrator and an orchestrator of a complex web of services that are directly aligned to improved business performance. Increasingly successful IT functions are operating as a business with a very clear understanding of the cost base and the value delivered to each part of the business. Investment and operational dollars are directly aligned to demand and consumption and IT is becoming an adviser/facilitator to the business.

This requires IT functions to evolve a new range of competencies, and many CIOs are adopting what Gartner refers to as "bi-modal IT". In reality, this model has been replicated many times over the past 30 years as technologies have become legacy and new capabilities have been required.

This move to the truly digital and mobile age is perhaps a more transformative step which will enable truly creative IT teams to take on extremely high value roles within the organization.

Source

Executive Order – Improving Critical Infrastructure Cybersecurity

Framework for Improving Critical Infrastructure Cybersecurity

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