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Convening change

How CIOs can orchestrate strategic transformations

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EXECUTIVE SUMMARY

Middle East and North Africa (MENA) energy companies are embarking on a decade of substantial investment and growth. They are also expanding their overseas operations and making the transition from state-owned enterprises to multinationals. These investments and acquisitions are occurring in a difficult environment. Market volatility, increased competition, new sources of energy, potential cost pressures, along with stiffer environmental and regulatory frameworks, characterize the new context for MENA energy companies.

To succeed, MENA energy companies need to transform their operations. They will have to use data as a clearer indicator of performance. Developing the capabilities to deliver such information will depend upon the ability of staff to execute business processes in a systematic, consistent, timely fashion, and IT-enabled change. Chief information officers (CIOs) should be at the heart of such change. The CIO has a vantage point from which to understand interdependencies among changes in operations, how these interdependencies affect information, and how this can signal the need for transformation.

With the support of their CIOs, MENA energy companies at the early stages of transformation need to avoid three common pitfalls: not understanding the integrated nature of transformation, treating IT as an order taker, and outsourcing much of the transformation. The CIO should use a four-step approach to shape and initiate the transformation's early stages. First, the CIO spots and articulates the need for an integrated transformation to C-suite partners. Second, the CIO evaluates, with C-suite partners, the case for transformation, developing a compelling argument that defines its extent, benefits, costs, and implementation plan. Third, the CIO equips IT to effectively deliver transformation without compromising daily operations. Finally, the CIO drives the transformation agenda by helping to sustain consensus among key stakeholders. The governance structures required to manage the transformation will encourage seniors and managers to assist each other and will allow them to break down silos and internal corporate barriers.

KEY HIGHLIGHTS

- MENA energy companies know that they have to transform how they operate if they are to cope with an uncertain and challenging business environment. They need to cultivate the capability to more efficiently capture their data so that they have a stronger basis for decision making. An IT-enabled transformation is key to help build such capabilities.
- The CIO has a strong position from which to recognize the need for change. By guiding the company around the most common pitfalls, the CIO can help shape the transformation agenda in its critical early stages.
- The CIO can enable the company to make the correct choices at the start of the transformation. To do so the CIO's office will have to transcend its traditional, tech-based mandate.
- The CIO must become a convener of corporate stakeholders, ensuring their commitment, and helping them by orchestrating the construction of an effective governance framework to oversee the transformation.

AN ERA OF CHANGE

MENA energy companies have been extremely successful. They have derived a significant competitive advantage from an abundance of cheap natural resources. However, their strong position, in terms of ample budgets and large market share, has allowed them to overlook potential inefficiencies in how they operate. That period of their history is over. MENA energy companies are entering a new era of corporate change and transformation. The coming decade presents MENA energy companies with important opportunities in the shape of an array of large-scale projects, and potential threats from a drastically changing business environment.

This new era will demand that MENA energy companies transform how they operate. Some companies will simply intensify existing efforts. Others may need to plan for larger changes. C-suites across the region know that transformation will become an obligation, not a choice. MENA energy companies will need better management information to cope with their investment and growth plans. During the next decade, companies across the region will invest hundreds of billions of U.S. dollars in megaprojects, bringing in larger revenues than ever before. These investments have more than corporate importance; entire multi-billion dollar national economic and social development plans will depend upon their success.

Many of these MENA energy producers are also making the transition to becoming multinational corporations with global operations and assets. They are seeking to improve the skills of their staffs—to develop trained professionals with increasingly entrepreneurial outlooks. This is not merely a corporate aspiration; it is consistent with government-sponsored efforts across the region to improve national workforce skills.

At the same time, MENA energy companies are operating in a more demanding, and potentially threatening, environment. In overseas markets there are energy companies from other parts of the world that have more efficient and effective business processes, even while they lack the resource bases of the MENA energy producers. Similarly, a variety of technology and policy factors is encouraging the development of new energy sources; sources that can become an alternative for consumers seeking to lower their dependence on MENA suppliers.

These changing market dynamics are characterized by four main factors: growth, globalization, potential cost pressure, and volatility.

- *Growth.* MENA energy companies must learn to cope with significant changes in the scale of their operations. The International Energy Agency forecasts that global energy consumption will increase by 40 percent between 2011 and 2035. The MENA region will produce more than 90 percent of the growth in oil production required to meet that demand. Similarly, these companies need to change how they manage their investment projects, to ensure that coming capital spending is used efficiently. From 2011 to 2020 Booz & Company expects the nine most significant Arab energy producers to invest US$823 billion in capital projects (Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates).[1]

- *Globalization.* MENA energy companies must start to operate as genuine multinational corporations. As they take their place on the global stage, they will face more complexity in their operations. These companies were previously focused on being regional energy producers. Today, their ambitious foreign acquisitions mean that they own diversified portfolios of subsidiaries and overseas interests. These include refineries in Asia, petrol stations in Europe, and technologically advanced chemicals and plastics providers.

  For example, Kuwait Petroleum International, known as Q8, owns thousands of petrol filling stations, hundreds of diesel stations for long distance delivery vehicles, and two refineries, all of which are in the European Union. Kuwait Petroleum International also operates a global aviation fuel business. Saudi Aramco possesses the world's second-largest tanker fleet, and is involved in refining and petrochemicals joint ventures in South Korea and Japan. The Saudi Basic Industries Corporation (SABIC) owns the petrochemicals division of the Dutch firm DSM. SABIC also purchased the U.S.-based General Electric Corporation's plastics division. Similarly, Abu Dhabi's International Petroleum Investment Company (IPIC) owns a majority of Borealis, an Austrian plastics company that is a major player in the European market. IPIC also has interests in North America and Japan, among other markets.

- *Potential Cost Pressure.* MENA energy companies face potential cost increases. There is an appreciable risk that production costs will grow, as oil and gas fields age and as their resources become depleted. In addition, exploration and development, in part due to improved safety and environmental standards, are becoming more complex and more expensive.

  A further cost pressure could come from higher feedstock prices. Governments may seek to increase their revenues by cutting back some of the subsidy that these companies benefit from. Similarly, governments may divert gas away from energy companies to power stations, thereby obliging companies to pay more to source gas.

- *Volatility.* Today's market environment is highly volatile. In recent years there have been wild swings in energy prices due to financial, political, and social factors, along with large-scale natural disasters (such as the Fukushima nuclear crisis). Environmental regulations have also contributed to making the market less predictable. There are important new energy sources that are emerging as alternatives to oil—a challenge that MENA energy companies will have to address.

In such a complex operating environment, MENA energy companies will need improved management information if they are to be able to react quickly and effectively. A critical aspect of such change will be turning data into clear indicators of business performance. Whether to manage daily operations, or to reach grand strategic goals, more and more MENA energy companies will have to provide their senior executives with timely and accurate information. In this new environment, for instance, senior executives will need more than ever the ability to understand the profitability of customer orders; to meet customer orders relative to production and inventory; and to compare returns on globally distributed assets.

TRANSFORMING TO COMPETE

Developing the capabilities to deliver such information will depend upon the ability of staff to execute business processes in a systematic, consistent, timely fashion; it will also depend upon IT-enabled change. This is because business processes by their nature generate data and information. A company can therefore excel by ensuring coherence among its people, processes, and underlying IT systems. By contrast, companies achieve only mediocre performance by treating people, processes, and IT as separate and unrelated elements of doing business—an example of the "silo mentality."

IT-enabled transformation can lead to coherence and achieve excellence in four ways. First, it defines an integrated process landscape. Companies are aiming for coherence at all levels, so that different units and functions are harmonized. This means ensuring that people, processes, and technology are intertwined. Second, IT-enabled transformation builds the supporting systems for this process landscape. Third, transformation calls for workforce training. Fourth, IT-enabled transformation changes the culture of an organization so that seniors and managers work across their organization and are not confined to their silos.

Global energy and chemicals players have used IT-enabled transformation to achieve coherence at multiple levels of their operations. Companies such as Exxon Mobil, BASF, and Royal Dutch Shell have demonstrated that properly executed transformation that aims for coherence and that is supported by IT can profoundly affect an organization's capabilities. Such transformation improves the quality of management information and reduces unnecessary complexity in operations.

BASF, for example, has aggressively pursued a global, centralized IT landscape to promote standardization and agility. This has contributed to sustaining an enviable competitive position relative to its peers. The company claims that its superior IT capability means that it does not have to worry about technical integration issues when dealing with acquisitions. Andrew Pike, the former president of information services at BASF, says, "The issue of how much technical effort is required to integrate an [entity] no longer has any particular significance. Decisions about company acquisitions are based purely on strategic business considerations."

Similarly, Exxon Mobil has developed a reputation for its unrelenting focus on harmonized operations. The company has become more efficient because it has aligned its business processes and IT systems. This allows Exxon Mobil rapidly to allocate resources around the world in response to changing demands. Patricia Hewlett, Exxon Mobil's vice president of global IT, argues that "the efficiencies made possible by adopting consistent platforms and business processes add flexibility to the business by allowing rapid movement into new markets and enabling Exxon Mobil to adjust workloads among offices worldwide."

Global energy and chemicals players have used IT-enabled transformation to achieve coherence at multiple levels of their operations.

AVOIDING THE PITFALLS

The early stages of transformation are critical. This is precisely when companies can be overwhelmed by the transformation's complexity, with the result that they take the wrong path. After all, a transformation is an effort that spans the entire enterprise and involves highly dependent business functions.

Success in the early stages of change will ultimately prove rewarding. A well-executed strategic transformation can have an energizing effect on an organization, yielding insights and allowing for new approaches to creating value. Better and more timely information should enable better and faster decisions. New data replaces previously inaccurate information. By contrast, a poorly implemented transformation can damage morale, as well as wasting time and resources.

The dangers of making the wrong initial choices are reflected in the fact that IT-enabled transformations miss their targets more often than not. This is a particularly important consideration for those MENA energy companies that have already taken the first steps to enhancing their management information and decision-making capabilities. According to one IBM survey based on over 1,500 practitioner interviews, 59 percent of IT-enabled programs missed at least one objective or failed entirely.[2] Other studies have demonstrated that change management is critical in large-scale changes. Indeed, organizational change capabilities should be a paramount consideration. They ensure that there is a well-lubricated and rapid shift among staff to using the new management system.[3]

Within the C-suite, the CIO has a critical role to play, supporting the company as it steers around the initial problems. CIOs are in a position to provide this assistance as they have a vantage point from which to understand interdependencies among changes in how the company operates.

There are three common pitfalls for companies beginning the transformation process: not understanding the integrated nature of transformation, treating IT as an order taker, and succumbing to the temptation to outsource the lot (*see Exhibit 1*).

1. *Not understanding the integrated nature of transformation.* The most frequent error companies make is to commence numerous, unconnected changes that run simultaneously among processes, geographies, business functions, and IT systems. To avoid this pitfall, companies should adopt an integrated approach from the beginning.

2. *Treating IT as an order taker.* Companies often regard IT as a mere support function that responds to service requests. IT therefore delivers solutions without appreciating the underlying issue. This lack of partnership between IT and its corporate counterparts prevents the collaboration needed to develop holistic, sustainable, and cost-effective solutions. Companies should instead leverage the CIO's position to allow for an understanding of the relationships among changes in how the company operates.

3. *Outsourcing the lot.* Companies sometimes hand the main transformation effort to outside providers for reasons relating to expertise and internal capacity. Unfortunately, this can hamper the growth of the company's own abilities. This would be especially serious for MENA energy companies. MENA governments want to improve their national skills base and are looking to energy companies to champion this effort. Companies can avoid this pitfall by taking advantage of the external suppliers to groom internal capabilities.

Exhibit 1
Companies Must Avoid Three Common Pitfalls at the Start of the Transformation Process

PITFALL	CHARACTERISTICS	RECOMMENDATION
Not understanding the integrated nature of the transformation	- Multiple separate initiatives running in parallel without acknowledging inter-dependencies ("silo mentality") - Overload on organization with experts being pulled in different directions - Significant integration conflicts; issues and disappointments in implementation	- Adopt an integrated approach from the start
Treating IT as an order taker	- IT function is a "shop" where orders are placed - Limited interaction between IT and the business except for checking whether the order has been delivered - IT is on the defensive all the time - IT is seen as a low-value-added function	- Develop business acumen of IT leaders - Have IT leaders rise to the challenge of being business leaders rather than technical specialists
Outsourcing the lot	- Bulk of transformation is dumped on external vendors to get quick results and avoid draining internal resources - Sustainability of the transformation is compromised as internal talent and capabilities are not developed - Staff does not genuinely internalize change	- Adopt an approach that leverages external vendors for internal capability development - Avoid excessive outsourcing - Grasp opportunity to nurture internal talent

Source: Booz & Company

LEADING FROM THE CIO'S OFFICE

The CIO has to be at the heart of the transformation, acting as an enabler, convener, and catalyst. This role stems from position rather than technology. The CIO sits at the heart of integration and major transformation-related decisions. This gives the CIO a unique perspective from which to understand interdependencies among changes in how the company operates and how these affect information.

- *At the heart of integration*. The CIO, unlike other executives, can draw up integrated plans that are consistent with the company's strategic direction and imperatives. This is because the CIO works with all business units and functions while remaining impartial. This gives the CIO the ability to see the different requirements across the entire enterprise and how these may conflict with or complement one another.

- *At the heart of major transformation-related decisions*. The CIO can help lay solid foundations for the transformation by initiating discussions on key trade-offs. One such trade-off is between the temptation of focusing on technology and the necessary emphasis on change management and capability development. Another trade-off is between exploiting existing systems and investing in potentially unnecessary new ones.

The demands on the CIO are therefore considerable. The CIO will have to break with the stereotype of being a mere technology provider. Instead, the CIO has to become an ambitious change leader. This involves guiding the company around pitfalls, building capabilities, creating C-suite consensus, and providing advanced planning and risk management. This requires business acumen, a distinguished leadership style, and an ability to shape the early phases of a sizable transformation without compromising day-to-day operations.

The Shell Case

Royal Dutch Shell is a global company working in over 90 countries. For many years Shell's operations reflected these worldwide interests and the way in which the market was then functioning. The company configured operations on a country-by-country basis, and there were varied degrees of coordination across regions and business lines. At one point, Shell administered more than 100 separate Enterprise Resource Planning (ERP) systems, and numerous other applications in its portfolio. Over time, this arrangement became unwieldy and led to significant overhead, complexity, and cost.

Shell's leadership recognized the changes in the global business environment and the need for the company's multicountry portfolio to remain competitive. Shell executives, with the support of Alan Matula, the CIO, embarked upon a worldwide ERP-enabled process transformation.

Matula took on the task of facilitating the transformation. First, he built the case for change in concert with leading executives. By acting collegially and as a catalyst, he helped executives make common cause. This ensured commitment and clear accountability for delivering the benefits of transformation. During this initial phase, Matula made sure that IT focused on establishing trust, getting the basics right, and engraining consistency among Shell's business units.

Matula also worked with Shell's senior executives in setting the transformation on the right path. He strengthened governance to enable executive buy-in, transformation oversight, and collaboration. He recruited key talent to standardize and simplify the IT landscape. Matula also revised Shell's sourcing strategy to focus on just a few vendors to provide value, innovation, and functional improvements.

The result of this program is that Shell has effectively standardized and streamlined its organization, technology, and processes. This has led to greater operational efficiencies and better decision-making capabilities.

FOUR STEPS FOR THE CIO: THE "SEED" APPROACH

In order to help the company avoid common pitfalls and set the transformation on the right path, we recommend that CIOs follow a four-step approach called SEED: spot and articulate the need for integration, evaluate and build a compelling case, equip IT with the required capabilities, and drive the transformation agenda. The CIO should play an enabling role that involves leadership in a truly collegial sense, as opposed to being the dominant officer or personality. The CIO's role is to make certain that the company makes the best choices in the critical embryonic stages of the transformation.

Spot and Articulate the Need for Integration
In the first step, the CIO spots the need for an integrated transformation and articulates the case for coordinated change to C-suite partners. The integrated nature of change is important. Lack of integration often compromises the success of transformations.

Multiple factors prompt the CIO to call for a transformation. It can stem from business developments. It may proceed hard upon the heels of a significant acquisition, corporate reorganization, or after a major change in the operating model. Equally, developments in IT can signal a need for change. Often a large number of interlinked demand requests, with IT implications, begin to accumulate across the company's multiple functions and geographies. Satisfying these orders would not only be difficult, but would lead to increased operational complexity—precisely the kind of problem the CIO can spot.

The CIO has to communicate a sense that the status quo is no longer acceptable. Without full leadership acceptance of the need for change, commitment and proper implementation will not follow.

In particular, the CIO should counter the temptation of some executives to dismiss large-scale transformations and instead to proceed in a piecemeal manner. The arguments against a comprehensive transformation include its cost, its disruption, and the need for individual business units to retain autonomy and flexibility. The CIO needs to engage with these contrarian views. Having correctly spotted the need for transformation, the CIO will be able to argue that solo initiatives are likely to fail. This is because they ignore their interdependencies and effects on the overall business. By contrast, assembling these piecemeal projects into an overall transformation actually gives them a greater chance of success.[4]

Evaluate and Build a Compelling Case
The CIO acts as a facilitator to evaluate the case for a transformation, partnering with colleagues to build a compelling argument for change. This involves working with functional leaders as they define the extent of the transformation, its benefits, costs, and implementation plan. The fact that the senior leadership reaches consensus is an early sign

of commitment and of readiness for change. Indeed, such C-suite coalescence is an initial indicator that the transformation can succeed.

There is bound to be considerable debate over the benefits of transformation. These typically include reduced overhead, optimized working capital, and increased process efficiency and effectiveness. For example, IT-enabled transformation can lead to a reduction in total cost of ownership (TCO) of IT systems. TCO encompasses direct and indirect costs over the life cycle of a system. Qualitative and strategic benefits include more quickly compiled and more dynamic management information, along with improved flexibility in integrating acquisitions.

The CIO needs to involve the various business functions in evaluating relevant benefits and costs. That will prevent business functions from regarding transformation as an imposition. By involving the functional leaders, the CIO can help ensure support and accountability for the rationale and business case for the different requirements and elements of the transformation. The CIO can then integrate all of the individual functions' cases into a corporate argument for transformation that the CEO and senior executives can approve.

Equip IT with the Required Capabilities

The CIO must equip the IT function with the ability to build momentum for the transformation while delivering the basics of daily technology needs.

This means a clear strategy for IT based on two main requirements. The first is to specify the technology architecture. The highly integrated environment of energy companies generally dictates that ERP be at the center of this technology. ERP draws together information from the whole company from inside and sometimes external sources. As part of this architecture specification, the CIO has to mandate policies governing technology choices made during investment decisions. This is particularly important for MENA energy companies with global acquisition plans and large capital budgets. Such policies prevent the proliferation of IT systems that are either incompatible or that communicate poorly with each other.

The second strategic requirement is to decide upon a sourcing approach that builds internal skills and secures vendor commitment to assist in this process. For MENA energy companies, developing their skills base is a national as well as a corporate imperative.

At the same time, CIOs should remember that others still regard them as technology providers. A failure to get the basics right (e.g., resolving issues involved in running systems and staying within the budget) can undermine the most impressively designed and facilitated transformation.

Drive the Transformation Agenda

Finally, the CIO can drive the transformation agenda by convening colleagues as they set up the structures that will oversee change. A capable CIO will act as a catalyst, seeking to achieve and maintain consensus among key stakeholders during the transformation.

The best way to overcome inevitable implementation problems is to emplace a strong governance mechanism. The CIO can orchestrate the creation of coordination and governance bodies. These will allow C-suite decision makers to engage, set priorities, and commit the necessary resources for success. The ability of senior executives to do so will be enhanced by the understanding derived from the business functions' participation in the evaluation process.

Better yet, by creating the coordination and governance bodies, the CIO and other business leaders are entering into an environment in which they can consider how they can help each other to solve corporate problems. This attitude can permeate the entire company. It can change behaviors and break down internal corporate barriers. It is a powerful example for staff to see senior executives collaborating, an example that can help end the silo mentality.[5]

CONCLUSION

The MENA energy sector is entering an important stage of development. State-owned companies are becoming multinationals. National champions are increasingly international businesses. The global economy depends upon their ability to supply it with oil, gas, and an increasing range of products. At the same time, these businesses have to invest hundreds of billions of dollars efficiently and effectively, while developing their skills base and those of their home economies.

MENA energy companies can prepare to meet these challenges by transforming how they operate. These energy giants will have to cultivate the capability to more efficiently capture their data so that they have a stronger basis for decision making. IT will play an important enabling role in such a transformation. In particular, MENA energy companies' CIOs will have to become enablers of change. An IT-enabled transformation will deliver capabilities that will stand these companies in good stead as they navigate through an era of volatile markets and potential cost pressures. As MENA economies seek to move from being resource dependent to being knowledge-based, there can be no better example than the national energy champions taking on that challenge and leading the way.

Endnotes

[1] Dr. Raed Kombargi, Alain Masuy, Asheesh Sastry, Frederic Ozeir, “Executing Capital Projects in the MENA Energy Industry: Much to Learn, More to Deliver,” Booz & Company, 2012.

[2] IBM, “Making Change Work,” 2008.

[3] Nate Clark, Dan Holland, Danielle Phaneuf, Neill Beurskens, “A Catalyst for IT Success: How Proficiency in Change Management Can Make IT Transformations Pay Off,” Booz & Company, 2012.

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