Today’s oil and gas industry continues to struggle in finding a complicated balance between rising global demand, diminishing known resources, and in maintaining manageable distribution and operating costs. While mergers and consolidation continue, oil and gas management are determining other approaches to recover their base lines. One particular measure is to include business process outsourcing (BPO) in their operational mix. Much of this reorientation has been caused by operational processes becoming progressively more complicated and more costly in terms of managing a variety of business functions; hence businesses are handing parts of their core work, such as engineering services apart from finance and accounting, to outside service providers.
Oil and Gas Industry and Scope

Today's oil and gas industry continues to struggle in finding a complicated balance between rising global demand, diminishing known resources, and in maintaining manageable distribution and operating costs. It is estimated that nearly 40% of the world’s total primary energy demand is met by the oil industry, and economic circumstances of the countries rich in this reserve are governed to a large extent by its availability. An estimated 2,330 billion barrels (Gb) of recoverable oil reserves was previously available in the world, though a recent study on oil and gas distribution and depletion\(^1\) estimates that 90% of this reserve has been discovered and 50% of that has already been tapped and consumed - with the Middle East holding 65% of the world’s oil reserves.

Further, a previous study by the Energy Information Administration (EIA) indicated that given an equal distribution of reserves, comparable consumption and production levels, there might be just 100 years of consumption left for existing oil reserves. This elevated concern of dwindling oil reserves – has led to heightened pressure to tap into the highly underutilized gas reserves, though the utilization of gas in the past has not been optimal due to economic constraints. Utilizing a higher percentage of this gas is also more environmentally savvy. As a result, legislation to control operators has been introduced, and many countries are increasing gas usage primarily for domestic purposes and in order to reduce the amount of imported oil or to increase the amount of exported oil. Growing usage of gas is becoming a major focus for exploration in many areas and also attention is being given on improving the infrastructure.

\(^1\) Peak Oil by Colin Campbell, 1999
Likewise, as consumer demand continues to push companies to gain access to existing reserves and increase production levels, energy firms are pressed to make informed decisions at an ever so frantic pace. This decision making process will require them to be equipped with a strong, secure and flexible IT infrastructure capability which will help find, analyze and apply specific operational needs. As such, effectively affordable and reliable oil and gas production has become a mission of industry players and at the same time has also evolved into its biggest challenge in an acutely volatile market. To complicate matters, the market is often fraught with costly and time consuming regulatory measures, cutthroat competition and frequent mergers and acquisitions – all of which can contribute to further unpredictability in prices. There is also an ongoing pressure to address health, safety and environmental concerns.

One of the particular characteristics of this industry, and specifically of the exploration and production stages is the sizeable amount of necessary capital required. Further, dexterity and a strict adherence to cost control are required for overall profitability. In early 1990s for example, companies paid special attention to reorganizing their operations by reengineering business processes and technology – within the decade, they encouraged consolidation to create synergies gained from economies of scale.

While mergers and consolidation continue, oil and gas management are determining other approaches to recover their base lines. One particular measure is to include business process outsourcing (BPO) in their operational mix. Much of this reorientation has been caused by operational processes becoming progressively more complicated and more costly in terms of managing a variety
of business functions; hence businesses are handing parts of their work, including finance and accounting, to outside service providers.

The outsourced offshoring of finance and accounting processes is one aspect of business that has been observed to have directly benefited the operating costs to oil and gas companies. This paper investigates the key drivers behind this mounting trend in the upstream segment, and its broad viability.

**Current Offshoring Trends in the Oil and Gas Industry**

The offshoring trends in the industry today are varied but the top three trends are as follows:

- **IT offshoring of infrastructure related components.**

- **Best-shoring or alternative offshoring,** of applications related to corporate systems. This trend is an imperative cost cutting tool for businesses competing on a global scale. Running applications from a single network, versus multiple networks in numerous locations, slashes costs and enables streamlining of processes and methodologies.

- Oil and gas companies are beginning to investigate the benefits of human resources offshoring. In addition to reducing costs, areas such as compensation, benefits management, recruitment and employee retention may be better handled by companies who are experts in the field.

**Advantages of offshoring. Why outsource?**

A driving force for many oil and gas companies in offshoring finance and accounting functions is cost reduction. Due to tightening margins, companies are under greater stress to slash expenditures. 30-50% reductions in costs (related to these specific business functions) have been reported by companies that have calculated their offshoring gains; the reductions are mainly reported in wide-ranging general and administrative costs. Furthermore, offshoring diminishes headcount and related costs such as salaries, benefits and incurred office space expenses. Simplifying, standardizing, centralizing and automating finance processes through the use of best practices and advanced technology also reduces costs and increases efficiencies. Offshoring companies offer benefits of economies of scale to clients by offering similar services to a broad range of customers. Cost reduction, however, is just one of the motivating factors behind finance and accounting BPO. A number of other premeditated advantages are also attracting oil and gas corporations to offshoring.

**Stronger focus on core competencies**

Management needs to focus on strategic decision-making, but, routine low-level tasks involved in running their operation can be all consuming. Offshoring routine tasks such as joint interest billings, payables, revenue distributions and receivables, ensure more time, energy and efforts are available to value-add projects such as analysis, strategic planning, forecasting and budgeting. Outdated business processes can be reevaluated and reengineered by specialists, whereas these updates (if done internally or in-house) may otherwise be delayed due to a lack time, focus and objectivity. This is especially relevant to the oil and outsourcing industry where considerable time is required in the strategic exploration initiatives.
**Improved regulatory conformity and compliance**

Complex business planning and strict government laws inflict a massive organizational and compliance burden on oil and gas companies. Through offshoring, companies gain access to specialists who have may have more exhaustive knowledge of complex tax systems, reporting policies and industry standards. Regular audits by these specialists also ensure *third-party verification* – and that financial records are compliant with regulatory requirements. Offshoring companies also are able to provide access to well defined processes and technology solutions designed to improve the precision, timeliness, dependability and lucidity of financial data and analysis at affordable costs. Though such technology implementation such as disaster recovery solutions can be implemented internally by oil and gas companies, allowing the outsourced provider/partner to fulfill these tasks can further reduce operating costs and allow them to maintain a higher focus on core competencies.

**Access to a larger talent pool and new technologies**

Diminishing talent pools within their base of operations is a key challenge faced by many oil and gas industry players. Staff turnover, attrition and downsizing, together with an aging labor force, has resulted in a scarcity of trained personnel. Offshoring, however, overcomes these challenges by offering the proficiency, methodologies, tools and solutions needed by an upstream company’s unique and evolving requirements – and is able to provide this necessary labor pool at a reduced cost envelope.

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**Exhibit 2: Oil & Gas Workforce Projections**

![Chart: U.S. Petroleum Engineering Workforce](chart.png)

**Source:** petroStrategies Inc.

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**Other advantages**

- Domain excellence – subject-matter expertise, controls and compliance, and new technology implementations.
- Process expertise – provider competence to implement global and industry standards and best practices.
- Labor cost reduction and increased productivity – offering Best Shore delivery through operating metrics, service-level agreements and corporate governance.
• Technology implementation – including best of breed, proprietary and commercial applications, effective architecture, and world-class alliance partners. The benefits of a virtual infrastructure can also be considered a direct benefit.

• Scale and leverage – usage of global network for delivering services, capacity management and reusable solutions; especially for service providers with domain expertise across geographic regions.

• Improved monitoring and reporting capabilities.

Processes That Can Be Offshored

Oil and gas companies are more likely to keep components of their business which reflect their core business competencies in-house. However, these companies may be likely to offshore back-end processes such as human resources, financial services and supporting functions such as document management and related back office tasks. This however does not limit the potential of other more sensitive business process and functions to be outsourced to offshore destinations. The possibility to do so exists in as much as security concerns, confidentiality and functional relationships between client and service provider are firmly established. Engineering and design along with business consulting and ITO services for example, are some of the higher-value services which are currently being outsourced by a number of oil and gas companies.

Further, with an increasing push by both the buyer and seller side segments to adhere and accept globally recognized industry standards, many of the higher value services which were previously processed in-house, will become more feasible to be outsourced. As service providers improve service delivery as they near their maturity cycles, service buyers will tend to be more comfortable towards increasing their outsourcing strategies if not altogether including higher value operational processes in their outsourced list. In the case of finance and accounting services – maturing service providers (as they increase their level of competency) are able to provide increasingly favorable service delivery prices and more able to obtain regulatory compliance. Ultimately this allows service providers to create a product (the service) for oil and gas companies that are at both times value-rich and cost attractive. Likewise, it is worth noting that with regulatory initiative such as Sarbanes-Oxley; that many oil and gas company CFOs will be hard pressed to simplify their financial operations, and outsourcing again will continue to present itself as a logical solution.

Industry and regulatory standards such as Sarbanes-Oxley also applies to the other higher value processes that can be outsourced by oil and gas companies. ITO service providers can offer clients access to brand or platform specific certifications and globally recognized best practice standards such as Capability Maturity Model Integration (CMMI). This is especially relevant to oil and gas companies looking to outsource engineering design or custom application development functions.
Below is a listing of current business functions that are likely to be outsourced by oil and gas companies.

<table>
<thead>
<tr>
<th>Business Function</th>
<th>Service Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Higher Value Services</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Engineering and Design          | • Property evaluation & acquisition  
• Divestitures  
• Drilling prospects and engineering reserve reports  
• Field study exploration  
• Waterflood feasibility and field performance issues  
• Process, mechanical, electrical, structural, civil and control engineering services |
| ITO                             | • Application/Software deployment and management  
• Hardware deployment and management  
• IT consulting services  
• IT/IS training  
• Network and workstation management  
• System integration  
• System infrastructure provision  
• System related support and management |
| Finance and Accounting          | • Accounts receivable/payable  
• Revenue accounting  
• Tax related services  
• Finance and treasury  
• Land record & property related  
• Financial reporting  
• Due diligence & auditing  
• Electronic document imaging |
| **Lower Value Services**        |                                                                                                                                                   |
| Human Resources                 | • Payroll and tax related  
• Compensation and benefits  
• Health and pension administration  
• Administration and claims processing related to employee insurance, retirement, education and other employee related benefits  
• Training and related services |
| Back office and shared services | • Document management  
• Remote document process and storage  
• Document automation and related services  
• Web-based document management |
Prime Offshore Destinations for the Oil and Gas Industry

The oil and gas industry’s needs in the coming years are expected to become more complex and service providers must be capable of addressing these concerns through a functional global network to better minimize operational and business risks from both their own and the client’s perspectives. They must be able to address for example, concerns for new green-field production sites and rapidly organize IT components to contribute to new areas intended for asset development. Vendors must also have the ability to think out of the box in order to expand their global infrastructure and meet client requirements. Moreover if service providers wish to further attract oil and gas companies - offshored services for non-core functions such as financial services, human resource management, and procurement must continually be provided in both a scalable and efficient manner.

The premier offshoring destinations in the world are largely concentrated in Asia. According to the Tholons City Competitiveness Index - the factors determining the viability or readiness of an individual city is composed of several contributory factors. Considering the components of cost, human capital and business environment for example – can give a clear indication of a city’s overall capacity to provide the mentioned offshore services.

For many organizations, cost may be the primary driver for their business location decision. In the Tholons City Competitiveness Index - ranking of the ten most viable cities for offshoring found that nine were Asian cities – Bangalore, Delhi, Manila, Mumbai, Chennai, Hyderabad, Pune, Cebu City, Kolkata (Dublin being the only non-Asian country). The above Index was based on variables that have been grouped into six main sets of drivers.

- Cost Component(labor and associated business costs)
- Human Resources (labor supply and quality)
- Business Environment (innovation and competitiveness)
- Infrastructure (physical, telecommunications and utilities)
- Real Estate (structure, availability, and cost)
- Peace and Order (safety and geo-political concerns)

However it must be noted that the cost component may not necessarily be the singular factor in the decision for an oil and gas company to consider outsourcing. Often, of equal value is the aspect of quality in fulfilling the business process. In the scenario where the cost and quality components take equal weight, additional considerations will need to be undertaken by the client company.

**Scenario One: Cost Driven**

In the cost-driven scenario, a larger majority in the decision making process is weighted towards the cost component. In many cases, cost may account for upwards to 50-75% of the business decision. The remaining drivers of human resources, business environment, infrastructure, real estate and peace and order are then allocated the remaining share (weight) of the decision.

India holds a significant cost advantage and in relation to its vast human resources capital – as found in destinations such as Bangalore, Delhi, Mumbai and Chennai - who claim four of the top five positions in the Index. Manila is the other cheapest non-Indian location for offshoring. The Tholons Index also notes that offshoring activity is spreading out from Manila to other locations within the Philippines.
Scenario Two: Quality Driven

Human resource analysis focuses specifically on the size and quality of the labor pool. From a labor supply viewpoint, Latin America and Asia score highly. Manila, Moscow and Budapest also rank highly on the aggregate index of labor quality. While balancing quality and cost - Delhi, Hyderabad, Kolkata and Bangalore to name a few, again feature in the top ten.

Scenario Three: Business Environment

In this scenario, cities from India and China are prevalent in the top ten owing their places to the scale and projected economic growth of their respective domestic economies. Recent economic surges in the Philippines and Vietnam are also worth considering as positive developments when considering the dynamism of a location’s business environment.

Service Providers for the Oil and Gas Industry

The corporate profile of oil and gas companies often consist of being enterprise sized, with highly specific technical needs and expansive global coverage. As such, the nature of service providers who are able to process their outsourced service demands are likewise similar. In this manner, the majority of outsourcing engagements from the oil and gas industry are handled by equivalently large service providers who not only have the operational maturity, but also possess the capacity of scale to handle large and sensitive projects. Below is a table identifying some of the major service providers cater to the oil and gas industry.

<table>
<thead>
<tr>
<th>Service Provider</th>
<th>Outsourced Service Provided</th>
<th>Service Buyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS</td>
<td>• Document processing • Supply chain management • HR</td>
<td>• BP Canada • Interconnector (UK) Limited</td>
</tr>
<tr>
<td>TCS</td>
<td>• Asset Life-Cycle Management (Digital Oil Field Solutions) • Plant design engineering • Plant automation services • Business process consulting</td>
<td>-not disclosed-</td>
</tr>
<tr>
<td>L&amp;T</td>
<td>• Engineering services and research</td>
<td>-not disclosed-</td>
</tr>
<tr>
<td>Chevron Holdings</td>
<td>• Back office and related support services • F&amp;A, HR and related services</td>
<td>• Caltex and Texaco (captive)</td>
</tr>
<tr>
<td>SAIC (Varec)</td>
<td>• Site surveys • Software development • System architecture design • Terminal automation</td>
<td>-not disclosed-</td>
</tr>
</tbody>
</table>
Future Trends

The global market and demand for offshoring will continue on the upswing and Tholons expects sustained growth in both the medium and long term periods. The future offshoring activity will be propelled by the business imperative to spread (or minimize) operational risks by choosing a number of strategic locations rather than a singular offshore destination. For lower order activities, the main driver will continue to be cost and third-tier Indian cities such as Chandigarh, Kolkata, Jaipur, Cochin and Ahmedabad are being predicted to become increasingly important destinations. Higher order, less cost-sensitive activities will favor locations such as Bangalore, Hyderabad, Delhi, Manila, Buenos Aires and select Central European cities.

Making Offshoring Work

Effectively transitioning a business area such as finance and accounting over to an third party service provider requires careful deliberation, planning and execution. To garner the complete value of offshoring, upstream companies must consider some fundamental steps outlined below:

**Step 1: Calculating the cost**

An in-depth expenditure study should be carried out to ensure the cost of offshoring does not exceed the anticipated value. Three cost scenarios should be evaluated:

- The current cost of managing back-office functions.
- The cost of adapting in-house processes with best industry standards, practices and technology.
- The cost of back-office offshoring. Baseline in-house expenses must include tangible costs like staff, infrastructure and IT applications, as well as intangible expenses of lost focus.

**Step 2: Building consensus**

Offshoring concerns every level of a company from top executives to managers and employees. Major changes caused by offshoring may cause an initial negative reaction. It is thus critical for the success of an offshoring strategy to bring consensus in all levels of the organization. A methodical cost analysis will address the concerns of executives while presenting offshoring as a standard industry practice to the executive level, not as something innovative will ease concerns. Front-line managers who fear a loss of control should be convinced that offshoring actually ensures enhanced control. Instead of investing valuable time in controlling day-to-day processes and employees, they
are freed to focus completely on controlling outcomes and the strategic direction of their organizations.

**Step 3: Selecting the right partner**

Extensive due diligence can enable the company to choose the right partner. Below is a list of key criteria to consider in selecting a candidate.

- **Client references** - Speak to at least three clients with similar needs and obtain exhaustive and candid feedback.
- **Experience and knowledge** - Assess an outsourcer's skill and expertise.
- **Service levels** - Evaluating customer service is the single most important criteria.
- **Infrastructure** - Visiting the prospective provider's facilities.
- **Financial health** - The ideal candidate should have a track record of success and development, a strong cash flow, hefty capital reserves, low debt and a varied client base.

**Step 4: Negotiating contract**

Essentially the contract must reflect harmony on all business and operations related issues. Most importantly, those related to extent of services, performance and costing. Performance incentives and penalties are also a critical component. The contract should plainly specify penalties for failing to meet service level requirements, as well as monetary rewards for exceeding expectations. In addition, a stipulation allowing each party to terminate the agreement in a worst-case scenario is desirable.

**Step 5: Ensuring continued value**

Managing the offshoring relationship by applying contractual metrics is the wisest approach to keeping the relationship on track. Quantitative measures should be used to evaluate performance, and qualitative input from in-house clientele. Appointing a single point of contact is an efficient way to ensure that the needs of both the client and the outsourcer are met on a regular basis.
Conclusion

The emphasis to drive down cost expenditures remains unabated in the upstream oil and gas industry. Companies that have discovered offshoring have not only found an efficient tool for maximizing effectiveness and lowering costs but have also enjoyed other resulting operational benefits. Through offshoring, oil and gas companies are acquiring a wealth of other strategic rewards that address their intricate and developing business challenges. With a well-planned offshoring strategy, these companies should attain the results they require to stay competitive in a cutthroat market. Oil and gas companies must focus largely on their core business and less on their back offices – a predicament than can be effectively addressed through business process offshoring.

As previously mentioned, today’s oil and gas company must strive to gain access to accessible reserves and find novel means to maximize production levels. Hence, organizations need to maximize and better utilize existing resources to assist them in capturing, analyzing, and applying strategic business decisions. Oil and gas companies can utilize the offshoring process to take advantage of domain expertise, gain access to modern technology implementations and industry-accepted best practice standards – as normally provided by offshoring service providers.

Offshoring can also help oil and gas companies create a fully global infrastructure with the purpose of developing an optimal system of operations regardless of location, and provide them lucidity in their supply chain. It can thus be inferred that if the oil and gas industry aims to minimize operational costs and maximize output then offshoring selected services to well chosen offshoring destinations presents itself as a viable and effective solution.
About Tholons

Tholons is a Services Globalization and Investment Advisory firm that combines "Best of Breed" consulting experience with deep execution expertise and investment insights to deliver truly effective services to its clients. Tholons offers a detailed understanding of business processes and combines it with practical hands-on expertise in executing the strategy. Tholons draws upon the considerable experience of a hand-picked team, which has successfully formulated and executed globalization strategies to unlock value for Global Fortune 1000 companies. Service providers leverage Tholons expertise to optimize their global delivery model. Tholons advisors also engage with government bodies to build compelling strategies for making countries attractive destination for outsourcing.

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