Saudi Aramco

1. Who was the first?

Who is the largest?

Why? Artesian flow cost to produce $2 -$3 bbl

Arabian National Islam

Intensely secret and difficult to compare

Difficult to compare because sheer size and importance plus secrecy

1. Origins and Operations

a. Became NOC with minimum disruption. Endured none of the wrenching experiences of other NOCs such as Venezuela and Iran – emptied of talent and focus on finding oil.

b. Became a convincing example of how an NOC, even run by technocrats and insulated from political interference can produce a first rate performance.

c. More by accident than design has a Western style corporate culture and invests heavily in education and technology and long-term prospective.

d. Internal transparency makes it easier to oversee and control its operations – not external.

e. Saudi is blessed by rich geology – not needed to invest in complex foreign projects. See map (page 175).

Some History

Began – Traditional old style concession agreement

Western companies and state state first agreement 1933. SOCAL (Standard Oil of California).
1933
Saudi – newly created state
1932
60 years life
Cover 670,000 square miles of total of 860 square miles. Good for the square miles.

By 1963, Aramco had relinquished 75% of original concession.

Oil – SOCAL spudded first well 1935 and by 1938 found oil in large quantities but had no way to handle vast amounts of crude. Created JV with Texaco 50/50.

WWII Forced Developments
1944 changed name to Arabian American Oil Company and Walla-Aramco was born.

Such vast quantities of oil require materials and Exxon (now) and Mobil and in 1948 owned SOCAL (30%), Texaco (30%), Exxon (30%), Mobil (30%).

|  |  |  |
| --- | --- | --- |
|  | Production | Revenues |
| 1947 | Aramco 90,000 B/d | 18 million |
| 1960 | 334,000 B/d | 334 million |

Special relationship between Al Saud ruling family and various US administrations.

Saudi population small and relatively unpoliticalized.

1951 Iranian nationalization shocked Aramco.

Arrogant British management created deep and bitter hatred by Iranian population toward
Anglo-Iranian Oil Company.

Aramco shifted to maximize employment of Saudi Nationals at all levels (Saudi and Venezuelan experiences were similar).

An Aramcan badge of pride for Saudis.

Bright Saudis left company, created services needed required by modern oil companies and created birth of industrial commercial development.

Not so outside of Saudi then 6 day war was June 1967. Brought nationalization which became “participation”.

Kuwait took over 100% 1974 and Saudi effective 100% control but had little impact on Aramco. However, Saudi adopted sweeping changes and King Faisal sought to create a NOC. General Organization of Petroleum and Minerals-Petromin.

Petromin mandate included exploration, refining, and distribution for minerals. In 1960s, became the main vehicle for industrialization of the Kingdom.

After 1973 oil shock, Petroleum announced a series of major export and refining JVs with Mitsubishi, Shell, Dow, and Mobil and a major gas gathering system.

Fate of several organizations hinged on aftermath of assassination of King Faisal. Khalid came to throne and Fahd became crown Prince and had a free hand to oversee economic development.

Central Planning became a ministry. Petromin handed over key projects , 30% of SABIC sold off to public. Not a surprise as majority of young adults had been through American universities that emphasized advantages of markets over state interference.

Petromin had managerial problem and now selling ineffectively and inefficient. Sold 1.5 – 2 million b/d of oil from participation arguments. Huge scandal involving Italians and ENI - $115 million went to Italian politicians and halt to various Saudis.

1988, a royal degree take over 100% of all Aramco’s assets. Companies were reassigned initially and by 2005. Petromin was dissolved and all assets taken over by Saudi Aramco.

Viewed as a victory for commercialism, markers vs. statist options and for a more performance based culture.

Relationship with Gov’t and Saudi Aramco

Objectives of Saudi Aramco

* To be a highly successful commercial oil firm

Commercial prosperity

* To be the supportive of the Saudi National mission

The golden quadrant

|  |  |
| --- | --- |
| 1 | 2 |
| 3 | 4 |

Social Benefit

Try, managers do, for all in top right corner

In 1976, when takeover of Aramco by Saudi state, objective three-fold:

* Survival of Al Saud ruling family
* Saudi government seek economic prosperity
* Government has sought control of oil and gas sector to provide financial leverage

Most NOCs display a divergence between the goals of the state and behavior of the NOC as its agent and become “a state within a state.”

Not Saudi, corporate culture ingrained with Saudi objectives and top managers see themselves as guardians

Regulation of oil sector

System reflects the government’s central goals. The ruling family has ultimate control.

Supreme Petroleum Council (SPC) was effective overseer of oil sector. Endures 5 year operating plan, a method of having a select group of Royal family, private citizens and other ministries approve and they did.

This closed system of administration minimized outside interference and made government goals clear. The experience in Kuwait was a warning when no protective walls were in place.

The membership of the SCPMA and the Saudi Aramco board on page 109. In theory, SCPMA serves as regulator for the nationals oil sector and overseas Saudi Aramco. In practice, Saudi Aramco is virtually self-regulating.

Opening of Up Stream

**Upstream** – Exploration and production for potential underground or underwater crude oil and natural gas fields drilling of exploratory wells and subsequently drilling and operating the wells that recover and bring crude oil and natural gas to the surface.
**Downstream** – Refining of petroleum crude oil. The processing and purifying of raw natural gas as well as the marketing and distribution of products such as gasoline, kerosene, jet fuel, diesel, heating oil, fuel oils, lubricants, waxes, LPG natural gas, and hundreds of petrochemicals.
**Midstream** – Transportation by pipeline, rail, barge, or truck of crude or refined petroleum product

Finances are highly transparent and not available outside of SCPMA. Government auditors only see the overall accounts and do not get operations and business data and thus accept everything done correctly.

Scale economies of very large fields not company skills and technology. Built up costs of crude production around $2 per barrel and a few cents doesn’t matter.

Saudi Aramco is left to regulate itself, sets its own objectives and priorities.

Capacity decisions lie with the Ministry which manage relations with OPEC (Organization of Petroleum Exporting Countries) and prepare estimates on global supply and and demand (Note – We read about there).

Unlike other NOCs, Saudi Aramco operates on a organized basis and is allowed to keep its revenue from crude and then pays royalties and dividends to equivalent to 93% of its profits.

Sales of crude are charged at a long run marginal cost, contrary to Western accounting practices and any accountant knows – but it is not a subsidy.

Only once have they gone outside for funds in the international market. This too adds to tanker fleet. They prepaid loans to avoid financial disclosure.

Rumors of corruption are few and far between. Yet Saudi and members of the ruling family are infamous for terms of corrupt practices. Partly due to its own oversight of procurement and managerial process – a legacy of former partners, notably Exxon – famous for excellence in cost management.

The oil sector and Saudi Aramco’s performance are critical to the well-being of the kingdom. See figures 5.4 and 5.5.

Governance and Strategy

State ownership often leads to corporate goals and practices that are different from conventional firms. Not a surprise to any of us.

Even Saudi Arabia is known as a secretive society, by their nature all tends to not be conducive to sharing of information.

“Rational is what right do people have to know when they pay no taxes and the government provides all needed services.”

Organization chart familiar - divided into six areas.
🡪Exploration and production and most important and led by a senior vice president as are the other five and overall governance is shared between the President and the corporate management committee.

Human Capital

A crucial part of the Saudi Aramco success is that the company has been able to maintain control of its hiring and not true of most others.

This has enabled them to avoid poorly performing staff. Petrobas also an exception.

One rumor states the existence of an office block in Dhahran where poorly performing staff are assigned an office and they’re basically ignored. Firing of staff members is not a viable option in Saudi culture and is restricted by law. Saudis are proud of their highly professionals running the company and “seek to be the best”.

Have adopted a mentoring system where staff shadow senior staff as part of learning experiences. Especially true when expert management was much larger.

Employees are thought to be extremely thorough in career and education development. Some estimate they spend $500 million per year on human resource development.

Initial years spent in the Industrial Training Center in Dhahran and then, if can pass, are given full scholarships to overseas universities. Since 1994, 4,800 Saudi nationals have received degrees.

In 2009, two new training initiatives Saudi Technical Services Institute – Damman General Organization for Technical Educational and Vocational Training – Al Hasa.

The CEO leads a company incorporating two district cultures uneasily. The first is that of a large American Multinational National Corp. The language of the company – English and thirty year service reward is a gold watch. Operates in a closed compound both physically and psychologically separated – a “Fortress Culture”.

The second, Saudi society is very lightly controlled and is extremely formal and hierarchical. Individual initiative not particularly encouraged and group loyalty is seen as extremely important. Employees are seldom criticized and avoid talking in public.

These cultures do coexist and makes the company appear as a normal commercial firm – same slogans and goals while Saudi element more elusive.

Saudi Aramco appears as a leading inventor among NOCs in research and development. Created dedicated research and development institutions.
🡪 Exploration and Petroleum Engineering Center (EXPEC) introduced.
🡪 Advanced thru dimension seismic surveying
🡪 Horizontal drilling
🡪Reserver simulation
🡪 Graphic display
🡪 Geo steering

Strategy and Investment Choices

Three broad goals during overall strategy
-Guardian of countries patrimony – guards the hydro-carbon resources
-Main agent in executing the state’s objectives

-Seeks to develop and protect the position of the company in the oil sector

Strategies for Oil
Recovery rates and reserves

Have maintained a maximum amount of depletion of 2/3% of remaining reserves – a reserve life of 30 years from 2009.

Recovery Factors
Saudi field – 50%
Industry – 35%
Target - 70%
Increase equivalent of 80 million bbls of extra reserves.

Exploration objective is to replace each barrel produced – higher production requires higher reserves. Has created expansion in exploration efforts. Target is to replace (2009) 735 million barrels to 900 million within 20 years. Do not consider probably or possible reserves. These are most conservative in the industry.

Production Capacity
Aramco and the government discussed long-term plan for capacity expansion in early 70s.
20 million bbl by early 1980s. 16 million demand slowed – first oil shock could maintain 15 years.

1.5 to 2 million cushion of spare capacity.
12.5 million BD by 2009. 2008 collapse of Lehman Brothers took these targets off the agenda.

Production
Same 1985 strategy was to balance international oil market to achieve desired price.

Marketing
Bring stability to markets
Defend a price that does not destroy demand
Secure maximum revenue possible

Strategy
No spot sales of crude
Destination clauses in crude lifting contracts

Market conditions include sweet and sour differentials.
Level of refining margins implicit net back value of crude, but are set by what the Saudis believe the market will bear.
OPEC what is sour greater than .5% to “pretty much follow”.

Strategy related to crude export trade and the downstream.
Upstream operations unnecessary due to prospects in Kingdom so large.
Part of strategy has been to create own tankers capacity to carry crude exports. VELA, the tank company, in January 2006 ordered six 318,000 dwt tankers to add to existing fleet of 23 tankers.

Downstream – domestic

Since 1968 had ambitions to extend Saudi Arabia’s operations into refining, marketing and distribution.

November 2006, announced capacity increase from 1.9 million B/d to 3 million by 2010. Most come from expansion from Saudi Aramcos refineries but a stated intention to involve private sector investment.
(PAGE 205)

Downstream – abroad

During 1982/85 period, became apparent among OPEC countries they were competing with non-OPEC countries for market share. Some former Aramco partners even refused to lift Saudi crude because of high government sales taxes.

Learned that operating abroad gave the company freedom from interference from its own government.

Rent seeking less prevalent in Saudi Aramco as they viewed themselves as “guardians of the country’s patrimony”. Difficult to prove.

Saudi Arabia had its own agenda, and created Star Enterprise Joint Venture with Texaco for refineries in Delaware City, Louisiana and Port Arthur.

Saudi government had its own agenda. Texaco thought it better to run Venezuelan crude, less costly, but Saudi Arabia bore additional cost because Saudi government wanted to be a crude supplier into US and thus strengthen political links between the two.

Gas

1975 – Ceased flaring. Master Gen Systems (MGS) was created and supplies fifty four companies in addition to Saudi Aramco, including power and dieselization plants, plus twenty one large petrochemical plants, 18 owned by SABIC, thru private sector. Even so, the role of gas as a domestic fuel is controversial. Free up oil for export or not.

Saudi Aramco’s Performance

To achieve the strategic objective, the company must undertake and operate projects, which require investment, construction and operations. Investment plans are drawn up within the text of a 5 year rolling plan that any project must pass is then considered in greater detail if passes. Approach and methods are those used by any large IOC. The golden quadrant is always present as a consideration to allow inclusion of national mission elements in the decision process (page 185).

The authors assessment is his attempt to measure performance in spite of the known objectives which he measures as good and operational context in terms of capacity and production levels.

Normal measures of performance such as capital employed; funding development and production costs are difficult to muster and evaluate as this data is not available in the public domain. Rare among NOCs, the shareholder (Saudi government) has access to complete and high-quality data about the enterprise performance in terms of overall finances.

Someone should review a book by Matt Summons that argued Saudi reserves are grossly overstated. Saudi Aramco refuted before CSIS (Center for Strategic and International Studies) in Washington and presented more data than ever before. The debate continues.

Output is a poor measure of performance because production levels are political choices rooted in efforts by the government to manage the oil markets. (See Figure 5.6 on page 210).

Students to summarize page 208, 5 Saudi Aramcos performance along with the 2012 annual review, Shaping Tomorrow, and provide Professor Jones on date to be advised.

The author’s conclusions state there are certain elements of context that are central to understand the story.

🡪 The company was never designed to be the NOC for Saudi Arabia. The company emerged after the defacto take over in 1976 more aligned to an IOC than a NOC.

🡪 The “technological strangeness” prevalent from the time of early discoveries of oil, both Aramco as a private company and Saudi Aramco as an NOC were faced with a much greater role in terms of the “National mission” compared with many other oil producing countries.

🡪 Successive Kings and their governments protected the company from undue political interference in its day to day operations.

🡪 Oil became a central plank in Saudi Arabia’s foreign policy and remains today.

🡪 Because of its huge reserves and producing capacity, Saudi Aramco had to consider wider issues and any other NOC.

* Saudi Aramco had three strategic objectives:

1). It was the guardian of the country’s patrimony and therefore responsible for the optimal management of the hydrocarbon reserves.

2). It was the servant of the Saudi state

3). It had strong interests to protect and develop its central role in the country’s hydrocarbon
sector.

Without the ability to measure performance in any detailed or consistent way, the overall conclusion is that Saudi Aramco has succeeded in achieving its three strategic objectives.

Over the years Saudi Aramco has developed and nurtured a very high-quality labor force. It is this pool of human capital that has made the company stand out both within the Kingdom and many of its brother NOCs.

The future of Saudi Aramco depends very much on what happens to the politics within the Kingdom over the next few years.