The PetroSA Strategy:
A study on the development of a national oil company strategy

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Masters of Business Administration Degree

By
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PLAGIARISM DECLARATION

I declare that this thesis

The PetroSA Strategy:
A study on the development of a national oil company strategy

is entirely my own work and that where any material could be construed as the work of others, it is fully cited and referenced, and/or with appropriate acknowledgement given.

Signature: ........... ................

Name of student: Bongani Sayidini
ACKNOWLEDGEMENTS

I would like to thank the following people who contributed immensely to the successful completion of this research work.

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My mom who has been there for me my entire life. Mama ndiyabulela ngemithandazo yakho, ngenxaayo bendisolokondinethembalokubandophumelela. Ndibulela ukundifundisa kwakho ukuthandaza, ensuring that throughout my study time, before any exam, I took time out and asked umvelingqangi to lend a helping hand, achukumise ezondawozifunaukulibalengqondweniyam.

The people of South Africa, through their national oil company (PetroSA) for affording me the opportunity to find and further develop myself. My solemn pledge to you - I will serve you to the best of my ability!

The President & CEO of PetroSA, Vice Presidents, and all those who afforded me time to engage them in strategic conversations. I feel deeply honoured to have had a conversation with all of you.

Lastly, Prayer has empowered me beyond imagination, a special acknowledgement to the Lord Almighty without which none of what I have achieved would have been possible.
ABSTRACT

Developing a strategy for a national oil company can be quite a challenge, more so in an emerging economy, like South Africa, where there is a lot of learning and experimentation in search of appropriate and effective strategies and where new policies are put in place and new laws amalgamated.

This study reviews strategy formulation at PetroSA. It looks at how the company has formulated its strategy over the years, that is, since its inception in 2002. It examines the company’s newly formed strategy dubbed “VISION 2020” a strategy launched in September this year. It pays particular attention to how PetroSA employees understand and relate to the company’s strategy and assesses its coherence.

Reviewing strategy formulation over a 6 year timeframe could be viewed as a pre-mature exercise, but the sooner PetroSA gains an appreciation of the potential barriers to effective strategy implementation, the better positioned the company will be to address these, moving a step closer towards the realization of its longer term objectives, inter alia, “gaining a 25% share of the liquid fuels market in South Africa by year 2020”

In trying to put the development of a strategy of a national oil company such as PetroSA into context, the study also briefly reviews strategies of 10 other national oil companies.

This study reveals that there is disconnect in how management understand the company’s strategy and how the general PetroSA populace relate to that strategy or at least has related to the company’s strategy over the years. While “VISION 2020” has been well received within the organization, a lot still needs to be done to ensure that the company’s newly formed strategy is embedded in the minds of the lower level critical workforce who have to implement this strategy.

Emerging out of this enquiry is a proposed strategy development model for PetroSA, putting emphasis on such aspects of strategy formulation as inclusivity and communication among others.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<tbody>
<tr>
<td>BEE</td>
<td>Black Economic Empowerment</td>
</tr>
<tr>
<td>BBBEE</td>
<td>Broad Based Black Economic Empowerement</td>
</tr>
<tr>
<td>CEF</td>
<td>Central Energy Fund</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CEPPWAWU</td>
<td>Chemical Energy Paper Printing Wood and Allied Workers Union</td>
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<tr>
<td>CFO</td>
<td>Chief Financial Officer</td>
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<tr>
<td>CNOC</td>
<td>The Chinese National oil company</td>
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<tr>
<td>COA</td>
<td>Co-operation agreement</td>
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<tr>
<td>CO₂</td>
<td>Carbon dioxide gas</td>
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<tr>
<td>Sequestration</td>
<td>The capture transport and storage of carbon dioxide gas</td>
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<td>GTL</td>
<td>Gas to Liquids</td>
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<td>HC</td>
<td>Human Capital</td>
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<tr>
<td>IOC</td>
<td>International Oil Company</td>
</tr>
<tr>
<td>Lukoil</td>
<td>Russia’s largest oil company (not an NOC)</td>
</tr>
<tr>
<td>MEP</td>
<td>Venezuela’s Ministry of Energy &amp; Petroleum</td>
</tr>
<tr>
<td>MoU</td>
<td>Memorandum of Understanding (MoU)</td>
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<tr>
<td>MT/D</td>
<td>Mega Ton per Day</td>
</tr>
<tr>
<td>NEP</td>
<td>Malaysia’s National Economic Policy</td>
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<tr>
<td>NIOC</td>
<td>The National Iranian oil company</td>
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<tr>
<td>NOC</td>
<td>National Oil Company</td>
</tr>
<tr>
<td>NOGC</td>
<td>India’s national oil and gas corporation</td>
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<tr>
<td>OPEC</td>
<td>Organization of oil exporting countries</td>
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<tr>
<td>PDVSA</td>
<td>The national oil company of Venezuela</td>
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<tr>
<td>Petrobras</td>
<td>The national oil company of Brazil</td>
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<td>Petronas</td>
<td>The national oil company of Malaysia</td>
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<tr>
<td>PetroSA</td>
<td>The Petroleum Oil &amp; Gas Corporation of South Africa</td>
</tr>
<tr>
<td>PSC</td>
<td>Production Sharing Contract</td>
</tr>
<tr>
<td>Saudi Aramco</td>
<td>Saudi Arabia’s national oil company</td>
</tr>
<tr>
<td>StatoilHydro</td>
<td>The national oil company of Norway</td>
</tr>
<tr>
<td>US$</td>
<td>United States Dollar</td>
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</table>
1. INTRODUCTION

Developing a strategy for a national oil company (NOC) can be quite a challenge, more so in an emerging economy, like South Africa, where there is a lot of learning and experimentation in search of more appropriate and effective strategies and where new policies are put in place and new laws amalgamated.

The purpose of this study is not to test hypotheses rather the research seeks to establish whether, given the complexities of working as a commercially mandated organization, while being a vehicle to advance broader national objectives the Petroleum Oil & Gas Corporation of South Africa (PetroSA) follows a structured process in developing its strategy. That is, the researcher seeks to gain an understanding of the strategy formulation process at PetroSA.

In essence this research seeks to answer the question “Does PetroSA follow a structured process in formulating its strategy”. In line with the grounded theory research philosophy this enquiry has led to a proposed strategy development model for PetroSA.

According to Hartley & Medlock III of the Baker Institute for Public Policy Rice University (2007, p.1-2) developing an understanding of the systematic behaviors of national oil companies is relevant to policy in oil importing and exporting countries, international oil companies (IOCs) and other NOCs.

They caution though that devising an appropriate policy strategy for behaviors that may be relevant for just one historical episode as is the case with PetroSA is near impossible, a contention the researcher fully agrees with. However, longer-term average behavior of an NOC is likely to reflect systematic tendencies making it reasonable to devise policies with these tendencies in mind.

Given the enquiring nature of this study, the grounded theory research philosophy seemed most appropriate and was followed.
Data were collected through:

- Interviews
- Questionnaires
- Observations
- Historical company documents and
- A draft DVD on the launch of PetroSA’s latest strategy dubbed “VISION 2020” a strategy unveiled in September this year.

Data collection and interpretation was done almost simultaneously, in line with Leedy & Omrod (2005, p.140-41) who contend that in a grounded theory study data analysis begins almost immediately, at which point the researcher develops categories to classify the data. Subsequent data collection is aimed at learning as much about them as possible, and at finding any discomforting evidence that may suggest revisions in the categories identified or in interrelationships among them.

This study reveal that the PetroSA strategy has not been coherent over the years, and that while a semi structured approach has been followed in formulating the company’s strategy, the strategy formulation process in not well documented and there are no guidelines to strategy formulation to ensure continuity should those who have been at the forefront of strategy formulation leave the organization.

This could put the organization in a precarious position as it strives towards “becoming a leading African energy company”
2. BACKGROUND

2.1 General Background

As contemplated in the White Paper on Energy Policy of 1998, the re-organization of the Central Energy Fund (CEF) group to separate the commercial activities from regulatory, strategic and developmental functions led to the formation of PetroSA 2002 (PetroSA, 2008).

PetroSA was formed through a merger of 3 state owned entities, Mossgas (Pty) limited, Soekor (Pty) limited and parts of the Strategic Fuels Fund Association (Mokate & Kunene, July 2000, PetroSA, 2008).

Mossgas was largely a downstream Gas to Liquids (GTL) refinery that processed natural gas and condensate into finished products for the local and international markets. Soekor’s business mainly focused on the exploration of oil and gas in South Africa.

In their 6th July 2000 letter to the Minister of Minerals and Energy, Mokate & Kunene, Chief Executive Officer and Chairman of CEF contend that the main motivation for the merger was to provide a more rational governance structure for CEF’s interest in the petroleum sector, a structure that would efficiently serve the state’s business and strategic needs with respect to oil and gas.

That it did not make sense to have 2 companies, Mossgas and Soekor in a related field both reporting to CEF, especially given its other more strategic, developmental or administrative obligations, largely orientated to be of service to government.

From a shareholder perspective, the activities of the 2 companies were sufficiently similar for them to be managed by a team with a single CEO reporting to a single board of directors. This would allow CEF more effectively to manage its diverse activities. At the same time proper focus and attention would be given to realizing synergies and operational efficiencies in a merged Mossgas and Soekor.
According to them, the merger would serve the following objectives:

- The consolidation of the two companies under a single corporate governance and management structure in order to increase efficiency, effectiveness and eliminate the duplication of effort.
- The leveraging of the combined skills, expertise and assets into new commercial business opportunities.
- The creation of a national oil company through which the government could effect its various objectives in the petroleum industry.

They emphasized that part of the initial mandate of the new company (PetroSA) would be to adopt a behaviour and development trajectory that complemented and promoted Government’s policy and strategic approach, for example, the advancement of the energy goals set out in the Energy Policy White Paper of 1998 or as revised from time to time. And where investments were made outside of South Africa, it should prefer, all other things being equal, investments in SADC and African countries and in particular those countries targeted by South Africa for the development of bi-lateral relations.

Furthermore strategic conversations the researcher had with the PetroSA executives from August to December 2008 revealed that PetroSA, unlike solely for profit organizations has dual objectives, to operate as a commercial entity and create value for the shareholder while also advancing national objectives in the petroleum industry.

For example, South Africa sources, through private players, more than 80% of its crude oil supply from Iran and Saudi Arabia, putting the country in a precarious position. In order to manage the risks associated with such positions PetroSA has recently been mandated to ensure that 30% of all crude consumed in South Africa be procured through the company and that it ensured that South Africa acquired its own crude vessel (Energy Security Master Plan – Liquid Fuels, 2007, p.7). PetroSA, in crafting its strategy is obliged to take such mandates into account.
Given this dual mandate, operating as a commercial entity while advancing national strategic objectives, the environment in which PetroSA operates is quite complex, this is exacerbated by the range of stakeholders whose views and interests must be factored in the strategy formulation process at PetroSA. Adding to this is a networked economy, characterised by challenges of complexity, connectivity and change (Fontana & Oosthuizen, 2007, p.10)

Moreover the environment in which PetroSA operates is further complicated by the inherent risk and uncertainty in the upstream petroleum business, a core part of PetroSA whose main function is the capital intensive exploration and production of oil and gas reserves.

To minimise this risk, PetroSA engages in joint ventures with international oil companies. Since these international oil companies are major sources of the intensive capital, and sophisticated technologies needed for exploration and development of petroleum resources, it is essential for a company such as PetroSA to formulate a coherent and well balanced petroleum exploitation strategy. This should be consistent with its social and economic goals and at the same time allow the international oil companies to generate economic profits that in some way relate to the level of risk involved in obtaining these profits (Ramadan & Zekri, 2003, p.1).

Given that strategy is emergent and influenced by various factors, some unforeseen, and some predictable, PetroSA’s strategy influenced by these forces has evolved over the years.

As the company grew from strength to strength through learning and experience gained, it engaged in a number of smaller scale restructuring processes, with the view to further align and focus its structure in support of its strategy.

An assessment of how PetroSA’s strategy has evolved since its formation to date could prove invaluable in gauging the company’s strategy moving forward. Such an analysis could provide a meaningful measure of the company’s progress towards the realization of its objectives as mandated by the shareholder from time to time.
That is, how both the commercial objectives and broader national objectives are being translated into concrete plans and executed and whether the company is well on its path to realize its vision “To become a leading African energy company” (PetroSA, 2008).

2.2 Company Overview

Apart from the functions that fall within the office of the President & CEO, Appendix 1 shows the PetroSA corporate structure with its 8 core divisions, these are:

- Corporate Planning & Strategy
- New Ventures Upstream
- Trading Supply & Logistics
- Finance
- Retail & Marketing (New in Structure and VP position vacant)
- New Ventures Midstream
- Human Capital
- Operations

Figure 1: The PetroSA Corporate Structure at 13 August 2008.

The company currently owns, operates and manages South Africa’s commercial assets in the petroleum industry (PetroSA, 2008).
The core strategic functions of PetroSA are to make it possible for the Government of the Republic of South Africa to:

- Improve the supply of fuel, oil and gas to the country;
- Mitigate the impact of oil price variations and foreign currency fluctuations;
- Drive transformation initiatives in the South African oil, gas, fuels and petrochemicals value chain;
- Champion, support and entrench the growth of Black Economic Empowerment (BEE) in the sector;
- Manage the contingency crude oil reserves and the strategic petroleum assets of the Government of the Republic of South Africa;
- Access upstream petroleum assets for the benefit of the citizens of Republic of South Africa; and
- Competitively operate PetroSA in a sustainable commercial manner.

Its core business is:

- The exploration and production of oil and natural gas;
- The participation in and acquisition of local, as well as international upstream petroleum ventures;
- The production of synthetic fuels, procured from offshore gas at the world’s largest commercial GTL plant;
- The storage of crude oil on behalf of the Strategic Fuel Fund (SFF)

Some of the commodities produced by PetroSA include leaded & unleaded petrol, kerosene (paraffin), diesel, propane, liquids (oxygen & nitrogen), distillates, eco-fuels and alcohols.
2.3 The PetroSA Vision, Mission & Values

Vision

“To be a leading African energy company” (PetroSA, 2008)

According to Nadler (2004), a company’s vision is a description of its aspirations in relation to multiple stakeholders, including investors, customers, suppliers, employees, legislative and regulatory institutions, and communities. The vision statement should answer this question: “What are we striving to become in terms of our role in the larger environment in which we function?”

In line with Nadler (2004) PetroSA seems to have developed its vision statement as an internal guide for strategy development. The vision statement is indeed aspirational and gives a picture of what the company hopes to accomplish and hopes to be. However PetroSA’s vision statement seems to fall short of being measurable. Good vision statements talk about measures of growth, relative positions in markets or industries, or returns to shareholders. They provide a benchmark against which to assess strategic alternatives (Nadler, 2004).

With its newly formed “VISION 2020” there is an opportunity for PetroSA to revise its vision statement so that it is measurable. This could assist when assessing how the organization is doing towards the attainment of this vision over time.

Mission

To be a leader in providing oil, gas and petrochemicals competitively in African and global markets by commercially exploring, producing, refining and marketing petroleum oil, and gas and petrochemicals for the benefit of all customers and stakeholders through innovation, quality products and empowered employees.
This mission statement seems in line with Collins & Rukstad (2008)’s contention that a good strategy statement should have three critical components: objective, scope, and advantage.

The definition of the objective should include not only an end point but also a time frame for reaching it. It is also crucial to define the scope, or domain, of the business: the part of the landscape in which the firm will operate, what are the boundaries beyond which it will not venture (Collins & Rukstad, 2008).

Alone, these two aspects of strategy are insufficient, for investors in particular it is important to explain how the business plans to achieve its objectives. While the mission statement above does not seem to contain this third aspect, the interviewees in this study articulated clearly how the organization planned to reach its “VISION 2020” objectives

**Values**

The business of PetroSA is founded upon and underpinned by a set of core values which are upheld and cherished by all our employees. The PetroSA values are:

- **Integrity**
- **Competitiveness**
- **Corporate Citizenship**
- **Harmonious Relationship with all Stakeholders**
3. RESEARCH METHODOLOGY

3.1 Research Purpose

The purpose of this study is not to test hypotheses rather the research seeks to establish whether, given the complexities of working as a commercially mandated organization, while being a vehicle to advance broader national objectives PetroSA follows a structured process in developing its strategy. That is, the researcher seeks to gain an understanding of the strategy formulation process at PetroSA.

In essence this research seeks to answer the question “Does PetroSA follow a structured process in formulating its strategy”.

3.2 Research Limitations

This study is specific to a particular context, the PetroSA context, and is thus not suitable for generalization in a statistical manner.

Moreover while grounded theory requires that the researcher continue to acquire data until no new evidence appears, a process called “category saturation” and one of the means of verification in grounded theory (Straus & Corbin, 1998, quoted in Suddaby, 2006, p.636), supported by Goulding (1999, p.7), the time limitation on this MBA mini-thesis may not have been sufficient to prevent what Suddaby (2006) call premature departure from the field.

3.3 Research Method

According to Leedy & Ormrod (2005, p.2, 133) research is a systematic process of collecting, analyzing, and interpreting information (data) in order to increase our understanding of the phenomenon about which we are interested or concerned. They see qualitative research as encompassing several research approaches that are, in some respects, quite different from one another, but have two things in common. Firstly, they focus on phenomena that occur in natural settings, that is, in the “real world”.
Secondly, they involve studying those phenomena in all their complexity. They go further to say that in qualitative research numerous forms of data are collected and examined from various angles to construct a rich and meaningful picture of a complex, multifaceted situation.

Mauch & Park (2005, p.18) support this view and contend that in qualitative investigations, the researcher strives for an understanding of the phenomenon under study, for example, how opinions about political issues are formed. They further assert that qualitative research calls for a statement of the problem, and that a research design must guide the study towards its goal, data are gathered, organized, inspected, analyzed, synthesized in deliberate and replicable ways, and related to other data.

The primary objective of this study is to gain knowledge (data) on the process used by PetroSA to develop its strategy. Such data could contribute to the evaluation of hypotheses or interventions and to the development of theories or prognostic indicators (Mauch & Park, 2005, p.18).

Given this primary objective, qualitative research methods more specifically the grounded theory research philosophy seemed most appropriate for this study and was followed.

**3.4 Research Design**

An appreciation of the philosophies underpinning research could be quite valuable in clarifying research design. Leedy & Ormrod (2005, p135 - 141) describe 5 common qualitative research designs:

**A Case Study**

In a case study, a particular individual program, or event is studied in depth for a defined period of time. A case study may be especially suitable for learning more about a little known or poorly understood situation.

It may also be useful for investigating how an individual or program changes over time, perhaps as a result of certain circumstances or interventions.
Its major weakness is that, especially when only a single case is involved, the findings may not be generalizable to other situations.

**Ethnography**

In ethnography, the researcher looks at an entire group, more specifically, a group that shares a common culture, in depth. The researcher studies the group in its natural setting for a lengthy period of time, often several months or even several years. The focus of investigation is on the everyday behaviors (e.g., interactions, language, rituals) of the people in the group, with intent to identify the cultural norms, beliefs, social structures and other cultural patterns. Ethnography is especially useful for gaining an understanding of the complexities of a particular, intact culture.

**Phenomenological Study**

A phenomenological study attempts to understand people’s perceptions, perspectives, and understandings of a particular situation. In other words, a phenomenological study tries to answer the question, what is it like to experience such-and-such? In some instances, the researcher has had personal experience related to the phenomenon in question and wants to gain a better understanding of the experiences of others. By looking at multiple perspectives on the same situation, the researcher can then make generalizations of what something is like from an insider’s perspective.

**Content Analysis**

A content analysis is a detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes, or biases. Content analyses are typically performed on forms of human communication, including books, newspapers, films, television, art, music, videotapes of human interactions, and transcripts of conversations.
Grounded Theory Study

Grounded theory, in contrast to theory obtained by logico-deductive methods is theory grounded in data which have been systematically obtained through ‘social’ research, the generation of new theory that evolves during the research process, a product of continuous interplay between data collection and analysis (Goulding, 1999, p.6).

According to Pandit (1996) the three basic elements of a grounded theory are concepts, categories and propositions. Concepts are the basic units of analysis since it is from conceptualization of data, not the actual data per se, that theory is developed.

Theories can’t be built with actual incidents or activities as observed or reported, that is, from “raw data”. The incidents, events, happenings are taken as, or analyzed as, potential indicators of phenomena, which are thereby given conceptual labels. That is, as the researcher encounters incidents, and when after comparison they appear to resemble the same phenomena and naming them with the same term, can the theorist accumulate the basic units of theory.

(Corbin & Straus, 1990, p.7, quoted in Pandit, 1996, p.2) define the second element of grounded theory, categories, as being higher in level and more abstract than the concepts they represent. Categories are generated through the same analytic process of making comparisons to highlight similarities and differences that is used to produce lower level concepts. They are the “cornerstones” of developing theory and provide the means by which theory can be integrated.

The third element of grounded theory is propositions which indicate generalized relationships between a category and its concepts and between discrete categories. The third element was originally termed ‘hypothesis’ (Glaser & Straus, 1997, quoted in Pandit, 1996, p.2).

But Pandit (1996, p.2) feels that the term ‘proposition’ is more appropriate since as (Whetten, 1989, p.492, quoted in Pandit, 1996, p.2) correctly points out, propositions involve conceptual relationships whereas hypotheses require measured relationships.
(Strauss & Corbin, 1990, p.23 quoted in Pandit, 1996, p.2) contend that the generation and development of concepts, categories and propositions is an iterative process, that grounded theory is not generated *a priori* and then subsequently tested, rather, it is *inductively* derived from the study of the phenomenon it represents. That is, discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory should stand in *reciprocal* relationship with each other. One does not begin with a theory, then prove it, rather one begins with an area of study and what is relevant to that area is allowed to emerge.

Leedy & Ormrod (2005, p.140) aligned with Pandit (1996, p.2) further contend that a grounded theory study uses a prescribed set of procedures for analyzing data and constructing a theoretical model from them. The term *grounded* refers to the idea that the theory that emerges from the study is derived from and “grounded” in data that have been collected in the field rather than taken from the research literature, particularly helpful when current theories about a phenomenon are either inadequate or nonexistent.

They assert that a grounded theory study focuses on a *process* (including people’s actions and interactions) related to a particular topic, with the ultimate goal of developing a theory about that process.

This study seeks to understand the process followed by PetroSA in developing its strategy and to determine whether PetroSA follows a structured *approach* when formulating its strategy. This enquiry seemed inline with the grounded theory research philosophy therefore grounded theory was followed in conducting the research.

### 3.5 Data Collection & Sampling

According to Suddaby (2006, p.634) the method described by Glaser & Strauss (1967) is built upon two key concepts: “constant comparison, “in which data are collected and analyzed simultaneously, and “theoretical sampling,” in which decisions about which data should be collected next are determined by the theory that is being constructed.
Leedy & Ormrod (2005, p.140) supports this view and further contend that in a grounded theory study data collection is field-based, flexible, and likely to change over the course of the study. Interviews typically play a major role in data collection, but observations, documents, historical records and anything else of potential relevance to the research question may also be used (Leedy & Ormrod, 2005, p.140).

Pandit (1996, p.5) lends his weight and advance the argument that in theoretical sampling, no one kind of data on a category, or technique for data collection is necessarily appropriate. Different kinds of data give the analyst different views or vantage points from which to understand a category and to develop its properties.

Given the enquiring nature of this study and in line with the grounded theory research philosophy, in this study data were obtained through:

- Interviews
- Questionnaires
- Observations
- Historical company documents and
- A draft DVD on the launch of PetroSA’s latest strategy dubbed “VISION 2020” a strategy unveiled in September this year. The draft DVD was shown to the PetroSA board in the board meeting of 14-15 November 2008.

3.5.1 Interviews

Face to face interviews that lasted up to 1 hour were conducted. A total of 45 people were interviewed over the period October – November 2008. Of the 45 people interviewed, 22 (49%) are based at PetroSA’s GTL plant in Mossel Bay. The researcher in ensuring that the Mossel Bay based PetroSA employees where interviewed wanted to ensure that the study covered as representative a sample of PetroSA as possible.
The GTL plant in Mossel Bay is PetroSA’s main source of income and is where the company’s operations are concentrated therefore this study would not have been complete without the views of this critical workforce.

Among those interviewed were:

- President and CEO of PetroSA.
- Vice Presidents (Finance; Operations; Human Capital; New Ventures Upstream; Corporate Strategy & Planning), the VP, Trading Supply & Logistics declined to be interviewed due to a tight working schedule and delegated one of her managers to provide input to this study.
- Company Secretary
- Chief Internal Auditor
- Manager, Corporate Strategy and Planning
- Chairpersons of the 2 Trade unions organizing at PetroSA, The Chemical Energy Paper Printing Wood and Allied Workers Union and Solidarity.
- Former chairperson of the Black Economic Forum at Mossgas, a structure which participated in the discussions where PetroSA was conceived
- 9 level 3 managers (across departments)
- About 10 other PetroSA employees at level 4 (across departments)
- 3 out of a total of 5 shift managers, one of which is also former chairperson of the Mossgas Black Economic Forum (BEF), 8 shift supervisors, and 3 Process Controllers based at the GTL refinery in Mossel Bay.

This last category of PetroSA employees, the core operations personnel, except for the shift managers (who have progressed in the operations hierarchy as to be recognized equivalent to engineers in the overall structure) are lower level employees in the PetroSA context and have matric as the average qualification.

In making sure that these employees were interviewed, the researcher sought to ensure a balanced view of the PetroSA strategy and strategy formulation process.
That is, the researcher wanted to capture the views of those not closely associated with strategy formulation at PetroSA. Furthermore the researcher in trying to ensure a diversity of views ensured that the sample was demographically and gender representative.

Moreover the CEO and CFO two of the PetroSA executives interviewed by the researcher are executive board members, in addition the Company Secretary and Chief Internal Auditor functionally report to the board therefore the board’s view on the PetroSA strategy formulation process was sought.

In line with Silverman (1993) quoted in Leedy & Ormrod (2005, p.146) the interviews yielded a great deal of information. While the interviews were structured, that is, a set of questions were used (Appendix 11.2 & 11.3), the researcher informed the interviewees that the questions served as a guide only and that he was flexible and hoped for a more open strategic conversation with the them The interviewees welcomed this flexible approach and went as far as proposing to rephrase some of the questions to make them more clear. This improved the questions for the subsequent interviews.

The researcher in employing this flexible approach was influenced by Leedy & Ormrod (2005, p.146) who contend that interviews in a qualitative study are rarely as structured as interviews conducted in a quantitative study, they are either open-ended or semi-structured, in the latter case revolving around a few central questions.

They caution though that while unstructured interviews offer flexibility and more likely yield information that the researcher hadn’t planned to ask for, their primary disadvantage is that the researcher gets different information from different people and may not be able to make comparisons among the interviewees.

Goulding (1999, p.8) supports this view and argues that with grounded theory, researchers should avoid being too structured in their methods of collecting data, for example, an interview should not be conducted using a prescribed formal schedule of questions. This would defeat the objective which is to attain first hand information from the point of view of the informant.
3.5.2 Questionnaire

Where there were challenges to interview individuals that were deemed key to this research, either because they occupied unique positions within the organization or because of the role they played in the strategy formulation process either in the past or currently, such persons were urged to provide written responses to the interview questions. That is, an e-mail request with the questions attached was sent to the respective persons, these were then followed by a phone call to ensure that feedback was provided. All those contacted in this way (6 people in total) sent back their input/written responses via e-mail as requested.

3.5.3 Observations

With the permission of the VPs Corporate Strategy and Planning and Human Capital (acting) additional primary data were collected through observations. The researcher observed the Human Capital (HC) strategy session that took place in September 2008 as part of the strategy review sessions done yearly by all divisions and co-ordinated by the Strategy & Planning Division. The researcher also observed and participated in quarterly strategy review sessions aimed at encouraging feedstock related strategic conversations.

3.5.4 Historical Company Documents

Secondary data were obtained from reports shared by others with whom the researcher engaged in numerous strategic conversations. The researcher also went through historical documents obtained from the PetroSA archives.

4. HYPOTHESIS

The purpose of this research is not to test hypotheses rather the research seeks to establish whether, given the complexities of working as a commercially mandated organization, while being a vehicle to advance broader national objectives, PetroSA follows a structured process in developing its strategy.
In essence this research seeks to answer the question “Does PetroSA follow a structured process in formulating its strategy”,

This was in keeping with Glaser & Strauss (1967) quoted in Suddaby (2006, p.636) who contend that it should be kept in mind that the purpose of grounded theory is not to make truth statements about reality, but, rather, to elicit fresh understandings about patterned relationships between social actors and how these relationships and interactions actively construct reality.

Suddaby (2006, p.636) asserts that grounded theory thus should not be used to test hypotheses about reality, but, rather, to make statements about how actors interpret reality.

(Martin and Turner, quoted in Suddaby, 2006, p.636), support this view and observe that grounded theory is best used when no explicit hypotheses exist to be tested, or when such hypotheses do exist but are too abstract to be tested in a logical, deductive manner.
5. LITERATURE REVIEW

5.1 Background to Literature Review

The final step in a grounded theory research is to compare the emerged theory with the extant literature and examine what is similar, what is different, and why. Tying the emergent theory to existing literature enhances the internal validity, generalizability, and theoretical level of theory building from case study research, because findings often rest on a very limited number of cases (Eisenhardt, 1989, p.545, quoted in Pandit, 1996, p.10).

(Suddaby, 2006, p.634, Goulding, 1999, p.6) slightly disagree they contend that it is a common misassumption that grounded theory requires a researcher to enter the field without any knowledge of prior research. Suddaby (2006, p.634) goes on to identify several variants to this myth, each based on the false premise that the researcher is a blank sheet devoid of experience or knowledge. An extreme variant is the notion that not only must the researcher enter the field with a blank mind (i.e., without knowledge of the literature and absent prior experience), but that she or he must also enter the field with a blank agenda (i.e., without a defined research question). A less extreme, but more problematic, version suggests that the researcher must defer reading existing theory until the data are collected and analyzed.

According to him, leaving aside the question of whether it is even possible to disregard one’s prior knowledge and experience, the idea that reasonable research can be conducted without a clear research question and absent theory simply defies logic.

He further asserts that although Glaser & Straus (1967) were motivated against grand theory, their formulation of grounded theory was never intended to encourage research that ignored existing empirical knowledge. They distinguished between substantive theory, or theory grounded in extant research in a particular subject area and grounded theory but they observed a direct and necessary link between the two forms of theory.
Substantive theory is a strategic link in the formulation and generation of grounded formal theory. We believe that although formal theory can be generated directly from data, it is more desirable, and usually necessary, to start the formal theory from a substantive one. The latter not only provides a stimulus to a “good idea” but it also gives an initial direction in developing relevant categories and properties and in choosing possible models of integration. Indeed it is difficult to find a grounded formal theory that was not in some way stimulated by substantive theory (Glaser & Straus, 1967, p.79, quoted in Suddaby 2006, p.635).

The literature review in this study focuses on:

- Systems Thinking – Seeing the bigger picture;
- A brief comparison of IOC and NOC and
- National oil company strategies.

### 5.2 Systems Thinking

*A cloud masses, the sky darkens, leaves twist upward, and we know it will rain. We also know that after the storm, the runoff will feed into groundwater miles away, and the sky will grow clear by tomorrow* (Senge, 1990, p.6).

According to Senge (1990, p.6) all the events quoted above are distant in time and space, and yet they are all connected within the same pattern. Each has an influence on the rest, an influence that is usually hidden from view. You can only understand the system of a rainstorm by contemplating the whole, not any individual part of the pattern.

He further contends that business and other human endeavors are also systems. They, too, are bound by invisible fabrics of interrelated actions, which often take years to fully play out their effects on each other. Senge therefore views systems thinking as a conceptual framework, a body of knowledge and tools that has been developed to make full patterns clearer, and to help us see how to change them effectively.
Aronson (2008, p.1) agreeing with Senge views the systems thinking approach as fundamentally different from that of traditional forms of analysis. According to him traditional forms of analysis focus on the separation of individual pieces of what is being studied, the breaking down into constituent parts.

“Systems thinking in contrast focus on how the thing being studied interacts with the other constituents of the system – a set of elements that interact to produce behavior – of which it is part”. This means that instead of isolating smaller and smaller parts of the system being studied, systems thinking works by expanding its view to take into account larger and larger numbers of interactions as an issue is being studied. This results in sometimes strikingly different conclusions than those generated by traditional forms of analysis, especially when what is being studied is dynamically complex or has a great deal of feedback from other sources, internal or external.

Krell (2005, p.20) in line with Senge and Aronson is of the view that recognizing inter-dependencies amongst all facets of an organization, cause and effect relationships are much more complex and cannot always be predicted in advance. He believes that they will depend on the specific context and circumstances.

While Doppelt, Neff & Nate (2008, p.1) see systems thinking as helping to overcome the two dominant human learning disabilities:

1. Inability to see effects across boundaries in time and space
2. Inability to see and understand the effects of delays

They assert that it is only when we understand and act within a systems context can we adopt a sustainable path. The idea is to focus on the whole of any problem, not one part. They propose the following “universal principles” to systems thinking:

1. See the big picture – Whatever situation we are in or problem we have can be related to a larger system.
2. **Think short and long term** – Habitual short-term solutions can impede long-term outcomes. However, you can’t ignore short-term actions.

3. **Soft & hard indicators** – Hard indicators alone are sufficient. Invariably, a host of powerful factors that cannot be easily observed influences behavior.

4. **System as a cause** – We are not “victims” – the unintended consequences of our past decisions and our mental models contribute to our current problems.

5. **Time and space and delays** – Cause and effect are often not closely related in time and space. Time delays and the chain-of-effects often mask the connection between cause and effect.

6. **System versus symptom** – A problem cannot be resolved without understanding the system that generates it. Root causes must be identified before lasting solutions can be found.

7. **And versus Or** – There are usually several interrelated causes for a given problem, not a ‘single-cause’.

Senge (1990, p.12) advocates a 5th discipline approach to systems thinking inter alia:

The genuine belief that “we can make our vision real in the future”, according to him, if non-systemic thinking predominates, the first condition for nurturing vision is not met, for example, vision without systems thinking ends up painting lovely pictures of the future with no deep understanding of the forces that must be mastered to move from here to there.

He goes on to say that systems thinking also needs the disciplines of, building shared vision, mental models, team learning, and personal mastery to realizing its potential.

- **Shared Vision** - A force in people’s hearts
- **Mental models** - focus on the openness needed to unearth shortcomings in our present ways of seeing the world, reflecting upon and questioning assumptions.
- **Team learning** - develops the skills of groups of people to look for the larger picture that lies beyond individual perspectives
- **Personal mastery** - fosters the personal motivation to continually learn how our actions affect the world, a commitment to your own and other people’s developments.
Given the interrelatedness between shareholder objectives; stakeholder interests; various divisions and departments within PetroSA; different countries in which PetroSA has business interests; and the external environment within which PetroSA operates, this study was done within the systems thinking context.

5.3 A brief Comparison of IOCs and NOCs

According to Jaffe and Soligo (2007, p.8) of The James A. Baker III Institute for Public Policy Rice University, the distinction between IOCs and NOCs is not always clear-cut since, over time, some NOCs such as BP, Total and ENI S.p.A. have been privatized or substantially privatized so that they behave in ways that are similar to firms that have always been in the private sector. And there are firms such as StatoilHyro and Petrobras that, although partially privatized, still seem to operate in some ways that reflect the interests of their national governments.

Of the 135 private companies for which the Oil and Gas Journal collects data, there are five majors, ExxonMobil, BP, Chevron, Royal Dutch Shell and ConocoPhillips, these are commonly known as the “Big Five”. Together with Total and ENI, these companies are commonly referred to as the “supermajors” (Jaffe & Soligo, 2007, p.8). For comparison purposes, Table 1 shows profits and reserves of all supermajors. In 2005, they accounted for 72.9% and 73.8% of profits and reserves respectively (Jaffe & Soligo, 2007, p.9).
Table 1: Profits and Reserves of companies referred to as supermajors (2005).

<table>
<thead>
<tr>
<th>Company</th>
<th>Profits ($Million)</th>
<th>Crude Oil Proven Reserves (MMbbl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil</td>
<td>36,130</td>
<td>10,491</td>
</tr>
<tr>
<td>BP</td>
<td>22,341</td>
<td>9,565</td>
</tr>
<tr>
<td>Shell</td>
<td>25,311</td>
<td>5,748</td>
</tr>
<tr>
<td>Chevron</td>
<td>14,099</td>
<td>5,626</td>
</tr>
<tr>
<td>Total</td>
<td>13,733</td>
<td>5,582</td>
</tr>
<tr>
<td>ENI</td>
<td>19,280</td>
<td>3,773</td>
</tr>
<tr>
<td>ConoPhillips</td>
<td>13,529</td>
<td>3,336</td>
</tr>
<tr>
<td>Largest 7</td>
<td>144,423</td>
<td>44,121</td>
</tr>
<tr>
<td>All Companies</td>
<td>198,183</td>
<td>59,757</td>
</tr>
<tr>
<td>Largest 7 as % of all</td>
<td>72.9%</td>
<td>73.8%</td>
</tr>
</tbody>
</table>

Source: Oil and Gas Journal Data Book 2006

Privately held companies have the goal of maximizing shareholder value. The management of these companies may accomplish that goal through organizing production so that a profit is made in the current time frame as well as in the future. They might make investment decisions to take advantage of opportunities to raise the company’s rate of return. They also have the motivation to achieve productive efficiency to hold down costs to enhance the profitability of any given revenue level (Pirog, 2007, p.5).

In the oil industry, maximization of shareholder value is taken to mean that the value of the oil resources should be maximized through managing production, exploration, and development activities to assure a functioning market. To ensure the long-term viability of the company, reserve replacement is necessary.

For the company to grow, it must have the ability to expand production and sales to meet demand growth in newly developing economies as well as in developed areas. Technical efficiency leads to cost minimization and improvements in product performance and environmental integrity (Pirog, 2007, p.5).
National oil companies do not necessarily follow the profit maximization model alone. Since these companies are totally, or majority, owned by their national governments, maximizing the value of the company might have to compete with other, governmentally mandated objectives (Pirog, 2007, p.6). Although all national oil companies respond to their national governments to one degree or another, the amount of influence varies widely.

The national oil companies of more developed nations, StatoilHydro in Norway, and Petronas in Malaysia, for example, tend to follow a more commercially oriented strategy than the Nigerian National Petroleum Co. and Venezuela’s PDVSA, where government objectives largely supplant commercial objectives, and the companies are under pressure to maximize flow of funds to the national treasuries.

Moreover national oil companies may be involved in redistributing the oil wealth of the nation to the society in general. This redistribution can be accomplished through fuel subsidies (reducing the price of fuel to the consumer), employment policies, and social welfare programs (Pirog, 2007, p.6).

PetroSA is currently not a key player in the South African petroleum industry, the company only has a 7% market share, therefore does not have the necessary capacity to engage in such schemes as fuel subsidies, although to some extent it engages in social welfare programs under the corporate social investment umbrella, and engages quite robustly with regards to employment equity in line with the country’s labor relations legislation (strategic conversations, 2008).

Like StatoilHydro and Petronas, PetroSA largely follows a commercially oriented strategy but also play a more social and developmental role. For example, with the depletion of gas reserves in the Bredasdorp basin, located in offshore Mossel Bay, currently the only feedstock source to PetroSA’s GTL Plant, and its main source of income, the company has been looking hard at ways of sustaining the plant way beyond the time that the current gas reserves are expected to run out (strategic conversations, 2008).
This is in keeping with its duty to local communities where it operates, the company is well aware that the Southern Cape economy is strongly reliant on its existence coupled with the fact that PetroSA is the largest employer in the South Cape region, directly employing in excess of 1000 people in its GTL refinery with a lot more indirect jobs associated with its operations (PetroSA internal newsletter, October 2008, p.3).

5.4 National Oil Company Strategies

According to Hartley and Medlock III of the James A. Baker III Institute for Public Policy, Rice University (2007), “Of world proven oil reserves of 1,148 billion barrels, approximately 77% of these resources are under the control of national oil companies with no equity participation by foreign, international oil companies. The Western international oil companies now control less than 10% of the world’s oil and gas resource base. In terms of current world oil production, NOCs also dominate. Of the top 20 oil producing companies in the world, 14 are NOCs or newly privatized NOCs”.

They contend that “Often these emerging NOCs have close and interlocking relationships with their national governments, with geopolitical and strategic aims factored into foreign investments rather than purely commercial considerations.

At home, these emerging NOCs fulfill important social and economic functions that compete for capital budgets that might otherwise be spent on more commercial reserve replacement and production activities”.

Ernst & Young (2007, p.2) is of the view that a new breed of NOCs, an expanding and ambitious breed is emerging. This new breed is shifting the dynamics of the global oil industry. More NOCs are reinventing themselves as fully integrated oil and gas enterprises.

Ernst & Young notes that the perceived distinction between NOCs and IOCs is becoming more blurred. Internalizing NOCs are leaving behind traditional concepts of nationality and state ownership, acquiring the skills and using their competitive advantage to compete commercially with IOCs on a global playing field.
In line with Hartley and Medlock III (2006), Ernst & Young further notes that, NOCs are a varied group, motivated by a variety of different political and social factors. These factors drive and shape their international ambitions.

This literature review focuses on five NOC strategies because of their specific relevance to PetroSA, either because of what PetroSA could learn from them as is the case with Petronas; Petrobras; and perhaps India’s ONGC or because of relationships that already exist between PetroSA and these NOCs as is the case with StatoilHydro of Norway and PDVSA of Venezuela.

The literature review also briefly looks at the strategies of 5 other NOCs, chosen to ensure a more geographical representation or because of the positions they occupy in terms of world production, as is the case with Saudi Aramco, the national oil company of Saudi Arabia. Saudi Aramco is the largest producer and holder of oil reserves in the world (Kobayashi, 2007, p.1). Below are these other NOCs:

- Saudi Aramco
- The National Iranian Oil Company
- Chinese National Oil Companies
- Lukoil – Russia’s Largest Oil Company

5.4.1 Petronas

Petronas, the National Oil Company of Malaysia is of particular relevance to this study, firstly because while it started from humble beginnings, it is hailed as a true success story of a national oil company that has transformed itself to an international industry giant to be reckoned with, PetroSA could learn from this. Moreover the conditions under which Petronas was formed particularly the legislative framework, for example Malaysia’s NEP (National Economic Policy) resembles the situation that South Africa was in at the formation of PetroSA.
The researcher sees Malaysia’s NEP as the equivalent of the Black Economic Empowerment policy (BEE) that preceded South Africa’s current Broad Based Black Economic Empowerment (BBBEE) policy, the advancement of which is one of the strategic objectives of PetroSA.

Nonetheless, Petronas was formed in 1974 amidst several powerful economic and political forces preceding it in 1972.

At the beginning of 1972 the price of oil was US$1.50/barrel of oil in it later rose to $2.28/bbl. The war in the Middle East and the OPEC (Organization of the Petroleum Exporting Countries) oil embargo combined to raise the oil price to $12/bbl. This alone was a major incentive for the Malaysians to seek a means of increasing their portion of the profits which they received as concessions from Shell and Esso (Von der Mehden & Troner, 2007, p.3).

Prior to the founding of Petronas in 1974, Shell was the major player in the Malaysian petroleum industry. In the succeeding years, Shell and Esso dominated both upstream production and downstream refining and sales. By the time Petronas came into being, four of the then nineteen oil fields in Malaysia that had been discovered were in production producing 90,000 to 99,000 barrels of oil per day (bbl/d) (Von der Mehden & Troner, 2007, p.3).

Several other factors were also important. This was a period in which several countries were moving from the traditional concessions approach to Production Sharing Contracts (PSC’s), including Abu Dhabi, Egypt and, perhaps most importantly, neighboring Indonesia (Von der Mehden & Troner, 2007, p.3).

In the formative years of Petronas there was a close association between the heads of Petronas and the Indonesian national oil company, Pertamina (Bowie, 2001, quoted in Von der Mehden & Troner, 2007, p.3). Pertamina offered technical assistance and other counsel to Kuala Lumpur. Given these conditions and advice, PSCs appeared considerably more favorable to the Malaysian leadership than the concessions system.
The Government of Malaysia also believed that the foreign concessionaires did not properly inform it of petroleum activities taking place in its territory. The then official in charge of oil stated that all he got from Shell was a check and did not have information on new discoveries and developments and was unable inform members of Parliament (IODC, 1974, quoted in Von der Mehden & Troner, 2007, p.3).

The early 1970s also saw growing economic nationalism in Malaysia culminating in the New Economic Policy (NEP) of 1973. The NEP sought to develop more Malaysian control over the modern sector and to provide greater opportunities to the bumiputra ("sons of the soil", i.e primarily Malay Muslims).

At its inception in 1974, Petronas formulated quite ambitious goals (Bowie, 2001, quoted in Von der Mehden & Troner, 2007, p.5). These were:

- To safeguard the sovereign rights of Malaysia and the legitimate rights and interests of Malaysians in the ownership and development of petroleum resources;
- To undertake proper planning for the orderly exploitation and utilization of Malaysia’s petroleum resources so as to satisfy both present and future needs of the country;
- To participate actively in the exploitation of petroleum and in the marketing and distribution of petroleum and petroleum products; To ensure that the local market is supplied with petroleum and petrochemical products at reasonable prices;
- To encourage local participation in the manufacturing, assembling and fabricating of the plant and fabrication supporting services;
- To contribute to the development of the agro-based sector of the economy by making available nitrogenous fertilizers; and
- To ensure that the people of Malaysia as a whole enjoy the fullest benefits from the development of the country’s petroleum industry.

Another parallel that can be drawn from Petronas and that could instill an appreciation of challenges to PetroSA as it strives to be a “Leading African Energy Company” is the resistance from the foreign companies with which Petronas’s proposed PSCs were met.
South Africa’s BEE and now BBBEE were not received with warmth by a predominantly white South African business either and other programs that PetroSA might want to embark upon may be confronted with similar challenges.

Petronas, having overcome such challenges, that is, concession holders ultimately accepting the PSC system, which called for a maximum cost recovery of 20% (25% for gas) and the government receiving a 10% royalty, with the remaining 70% being split to a further 70% going to Petronas and 30% to the oil company (Von der Mehden & Troner, 2007, p.7). The Petronas management was faced with further challenges, that of being on a learning curve on petroleum issues. Given the previous control of the industry by the concessionaires, there had been little opportunity for Malaysians to learn the business (Von der Mehden & Troner, 2007, p.7).

Moreover due to the culture at the time Malays were normally not trained in engineering, evidenced by the fact that there were only five Malays studying engineering at the University of Malaya in 1970. While they dominated upper levels of the civil service and military, Malays were not prone to entering the business of manufacturing, leaving those occupations to Indians, Chinese and Europeans.

Petronas recognizing their skills challenges especially as they relate to the petroleum industry, launched major scholarship programs.

This is another parallel to PetroSA, where because of the deliberate exclusion of black people from the mainstream economic activity of the country, the skills needed in the upstream petroleum business of PetroSA are in very short supply and where black people possess such skills they have relatively little experience albeit quite highly qualified thanks to PetroSA’s skills development initiatives (Overseas scholarships in particular, that enabled young black engineers from other engineering disciplines to convert to petroleum engineering from such reputable institutions of higher learning as Imperial College in London).

Anyway following its ambitious goals at inception, Petronas, a 100% government owned enterprise has achieved the following by 2007 (Von der Mehden & Troner, 2007, p.10):
• Signed more than 60 PSCs with international petroleum companies
• Expanded its downstream retail and marketing and has 729 service stations in Malaysia, accounting for 40% of the market share.
• As of 2005, it has maintained over 1250 service stations in South Africa through its Engen Limited subsidiary and another 117 service stations in Thailand and related petroleum products in Sudan and Indonesia.
• It has a substantial share in a new refinery under construction in Sudan and plans to expand its retail operations there.

The company also entered into three significant new areas in the 1990s:

• Overseas operations from which the company derives 20% of its revenues
• Shipping and other maritime related activities and
• Support of non energy government projects.

The current Petronas Operations and Corporate Strategy among others focus on (Von der Mehden & Troner, 2007, p.10):

• **Upstream** - Petronas is involved in oil and gas development and production both at home and abroad.
• **Downstream** - Petronas is deeply involved in both refining and petrochemical plants at home at abroad.
• **Shipping** - Petronas, through MISC (formerly called the Malaysia International Shipping Corporation Berhard), owns 30 contained ships, 13 chemical and parcel tankers, 53 bulk ships, 23 LNG ships, 13 crude and product tankers, 2 passenger ferries, and 3 liquefied petroleum gas carriers. Additional ships are also under MISC control.

Lastly Von der Mehden & Troner (2007, p.34) observe that Petronas has several attributes that tend to set it apart from many of its national oil company counterparts, 2 of these are highlighted below, others are contained within the preceding paragraphs:
Petronas is a generally well-run company with a leadership that has developed a good reputation for administrative and financial accountability. Petronas is generally free from corruption.

Petronas has largely been free of government interference in its day-to-day operations. It sees itself as a business with profit as a prime objective. There have been cases of state interference in decisions, and Petronas has been a major financial supporter of state supported mega-projects outs its core interests, such as the Twin Towers and Putrajaya.

5.4.2 PDVSA

PDVSA, the 100% government owned National Oil Company of Venezuela is quite central to PetroSA’s Vision 2020 strategy. Vision 2020 seeks to position PetroSA as a major player in the South African petroleum industry by growing its market share from the current 7% to a staggering 25% by year 2020. That is, PetroSA by 2020 wants to provide at least 25% of the diesel, petrol and kerosene that the country needs for growth (PetroSA internal newsletter, Nov 2008, p.3).

A key component to that growth strategy and for which PetroSA has recently been granted a manufacturing license, is the construction of a 400 bbls/d world class crude oil refinery in Coega, Eastern Cape by 2014 (PetroSA internal newsletter, Nov 2008, p.6).

The Manufacturing New License was granted to PetroSA by the Controller of Petroleum Products, a unit of the Department of Minerals and Energy, in terms of the Petroleum Act of 1977. The license permits PetroSA to manufacture refined petroleum products at the Coega site (PetroSA internal newsletter, Nov 2008, p.6).

PetroSA plans to refine Venezuelan heavy crude in this giant refinery as part of a strategy to mitigate against crude oil price fluctuations. To assist PetroSA on this path, the South African government recently signed a Memorandum of Understanding (MoU) with its Venezuelan counterpart. The MoU led to a signing by PetroSA of a ground-breaking cooperation agreement with PDVSA.
The historic accord paves the way for PetroSA to participate in exploration and production activities in Venezuela’s Orinoco Oil Belt; in turn, PDVSA could participate as an investor in the Coega refinery project (PetroSA internal newsletter, October 2008, p.3).

Moreover PetroSA and PDVSA discussed a strategic integrated proposal as a framework for co-operation between the two National Oil Companies in the area of oil and gas. The proposal addressed the following (PetroSA internal newsletter, October 2008, p.3):

- PetroSA’s participation in exploration and production activities in the Orinoco Oil Belt (which has typically heavy oil fields). To this end, PetroSA entered into an agreement to study the quantification and certification of oil reserves in the Boyaca 4 Block, which covers approximately 700 square kilometers in the Orinoco Oil Belt (The researcher is one of the team members, reservoir engineer, to participate in the Venezuelan projects and has already in October 2008 visited Venezuela as part of the teams orientation to that country).
- An invitation to PDVSA to enter into joint investments with PetroSA in the proposed crude oil refinery planned for development in Coega, Port Elizabeth and associated storage facilities in South Africa;
- An invitation to PDVSA to use South Africa’s crude storage facilities in Saldanha for possible trans-shipment to Asia and the Far East;
- An offer by PetroSA to share its low temperature GTL technology with PDVSA, to enable it to commercialize Venezuelan gas assets;
- An invitation to PDVSA to explore the possibility of acquiring an interest in PetroSA’s exploration assets in Africa.

Given this strategic relationship between the two National Oil Companies, it is crucial that PetroSA endeavors to gain and understanding as to the workings and strategies of their Venezuelan counterpart.
According to Mares & Altamirano of the James A. Baker III Institute for Public Policy Rice University (2007, p.63) the shift of PDVSA’s strategy was not clear until April 2003 when the “new” PDVSA was distinguished from the “old” PDVSA.

The strategy has only been implemented since the beginning of 2004, with an ostensibly final refinement in 2006.

PDVSA’s general strategy until April 2003 had been to maximize shareholder value and ensure financial strength (PDVSA’s US Securities and Exchange Commission, Form 20-F, 2001, June 14, 2002, quoted in Mares & Altamirano, 2007, p.63). Since then, the objective has been to maximize the value of oil and gas resources (PDVSA’s US Securities and Exchange Commission, Form 20-F, 2003, October 7, 2005, quoted in Mares & Altamirano, 2007, p.63).

Mares & Altamirano (2007, p.63) elaborate and contend that, in other words, while the old strategy focused on costs, net income and profits, the new strategy care about revenue and the two variable that determine this level – prices and quantities.

They further contend that, given that PDVSA alone cannot determine international oil prices, the government complies with OPEC’s quotas and its recent cuts in production levels to guarantee higher prices.

Minister Ramirez declared that quotas and reduced quantities ensure maximum value of Venezuelan oil (El Universal, 12-14-06, quoted in Mares & Altamirano, 2007, p.64).

According to them, the implications of this statement are that PDVSA can do nothing directly to achieve its goal of maximum value, because it cannot go beyond OPEC’s quota and cannot determine international prices. Attainment of the firm’s goals depends on the ministry of energy and petroleum (MEP)’s negotiations with OPEC and the fluctuations of the international market.
To complement the new business goal, the firm’s strategy was officially aligned to the government’s national development plan in 2006 (PDVSA’s strategy, Jun 2006, quoted in Mares & Altamirano, 2007, p.64). As a result, the firm’s de facto short-term strategy has become to maximize transfers to social programs.

Mares & Altamirano (2007, p.64) go on to say that, the combination of strategic objectives, maximization of revenue and transfers to social programs, is creating inefficiencies that so far have not been of economic or political concern because of high oil prices. The firm does not need to focus on cost reduction or efficient operations in order to maximize revenue, and in fact, the highest value depends on MEP’s influence on OPEC.

Moreover, according to them, the financial transfers to social programs in Venezuela or abroad are done in such a way that increases favoritism and corruption, and decreases transparency.

For example, the temporary employment program is directly linked to participants in the Social Missions, thereby making its role in promoting the “Bolivarian Revolution” and Chavez clear to everyone. Nor has there been a public accounting of the commodities PDVSA receives from its barter agreements with Argentina, nor the value of the services provided by Cuba.

Mares & Altamirano (2007, p.65) conclude by saying, given that PDVSA’s business objectives cannot be achieved by the firm’s own actions but depend instead on the MEP and OPEC, the big difference appears in the explicit social and political role of PDVSA domestically and internationally.

In support of Mares & Altamirano, Ernst & Young (2008, p.5) highlight how PDVSA is already leveraging its political ties to forge an alliance, Petrocaribe, between Caribbean nations and Venezuela. The alliance plans the construction of a refinery in Cuba, where fuel will be produced for distribution among the member countries. The Venezuelan government is actively encouraging energy cooperation between nations with sympathetic political leanings.
Venezuela has also been strengthening its relations with Iran, including $4 billion joint investment to develop Venezuela’s Orinoco oil belt. The deal is just one of a series of accords signed between the two nations, designed to strengthen the “axis of unity” between Venezuela and Iran (Ernst & Young, 2008, p.5).

For PetroSA it would be prudent to watch closely how PDVSA responds to the prevalent lower oil prices so as to better anticipate how a change in PDVSA strategy could impact the company.

5.4.3 StatoilHydro

Another partner that PetroSA could leverage on their relationship with is StatoilHydro, the Norwegian National Oil Company. Statoil is quite an established NOC of the west, and has vast amounts of experience across the petroleum industry value chain.

According to the PetroSA website, PetroSA and StatoilHydro’s relationship started when StatoilHydro and PetroSA joined forces in pursuing their mutual interests in GTL technology via a co-operation agreement (COA) with a then 50/50 % shareholding. This agreement led to a final investment decision in February 2002 for the construction of the $50 million Fischer-Tropsch Semi-commercial unit (FTSCU) with a production capacity of up to 1000 bbl/d of product (oils and waxes) at the PetroSA site in Mossel Bay.

The Mossel Bay site was attractive in that syngas of the correct composition could easily be obtained, and the reactor products could be absorbed into the existing refinery. Construction was completed in March 2004, and the unit went into production in May 2004, albeit with initial teething problems in obtaining separation between catalyst and wax product which required extensive plant modifications to solve (www.petrosa.co.za).

The test program was thus delayed until July 2005 when significant breakthroughs in catalyst-wax separation were made. Various trial programs were conducted and in July 2006 the criteria for “proof of concept” (or demonstration phase 1) were achieved.
Further modifications to the plant were made from October 2006 to July 2007, and the plant is now successfully operating in demonstration phase 2 which is concerned with optimization of catalyst-wax separation processes and proving catalyst performance (activity, attrition etc) over an extended period under commercial operating conditions (www.petrosa.com).

StatoilHydro is the world’s third largest net seller of crude oil and a leading supplier of gas to Europe with a top-class international gas value chain. The group is the largest operator on the Norwegian continental shelf (NCS), and has major expertise in delivering large and small projects in Norway and internationally. Statoil has been developing Fischer Tropsch (FT) since 1986, involving patented catalyst and reactor design. StatoilHydro has also built and is operating a world scale (2400 MT/D) methanol plant in Norway (www.statoil.com).

Moreover StatoilHydro are leaders in Carbon Dioxide (CO₂) Sequestration in oil and gas reservoirs offshore. The removal, injection and monitoring of CO₂ produced from the Sleipner Vest gas/condensate field (StatoilHydro are the operator in this field) in the Norwegian Sector of the North Sea, containing produced gas with a CO₂ content of up to 9.5% was implemented in 1996. This was done to get the produced gas from this field to saleable quality as well as a means of safely disposing the separated CO₂ instead of venting to the atmosphere where it would add to the greenhouse gas problem.

The Sleipner Vest project is the world’s first demonstration of CO₂ capture and underground storage and to date has provided insights to governments and the petroleum industry on how the injected CO₂ behaves with time in underground offshore formations (British Geological Society, 2005, quoted in Sayidini, 2005, p.13).

PetroSA could tap into this know-how in the quest to play its part in curbing greenhouse gas emissions to the atmosphere.

There are important opportunities offered by effective action aimed at addressing climate change, in particular for innovation, technological development as well as poverty reduction (G8 Summit, 2007, p.13).
In terms of the Kyoto Protocol (1998), South Africa enjoys a developing country status and thus currently has no quantified emissions reduction obligations, in line with that PetroSA also does not have emissions reduction obligations.

However in terms of the post 2012 international climate change policy architecture design already underway, South Africa has been named as one of five developing countries that will be under pressure to accept greenhouse gas emission caps. Caps will put a cost to emissions and will affect both the public and private sectors including PetroSA (G8 Summit, 2008).

The South African government having started to develop measures aimed at curbing greenhouse gas emissions could start imposing penalties to high GHG emitters sooner than in 2012. This could negatively affect PetroSA’s profits in the near future.

In his keynote address in June 2007, minister Martinus Van Schalkwyk highlighted that an inter-ministerial committee on climate change led by the Department of Environmental Affairs had already initiated a long term mitigation scenario process for South Africa, and that long term national policy on climate change was awaited in 2008/2009 (Van Schalkwyk, June 2007).

Moreover PetroSA already a member of the Carbon Leadership Sequestration Forum and one of the participants and funders of a joint study “Project” led by SANERI (The South African National Energy Research Institute) whose primary objective is to identify and characterise potential sites for the geological storage of carbon dioxide as a mitigation measure for the lowering of greenhouse gas emissions, has been tasked to quantify the geological storage potential of its offshore oil and gas reservoirs (SANERI, 2007). This is where Statoil’s CO₂ know-how could be best utilized, that is, where PetroSA could approach Statoil Hydro to share their knowledge.
StatoilHydro’s current strategy is as set out below:

“We aim to deliver long-term growth and continue to develop technologies and manage projects that will meet the world’s energy and climate challenges in a sustainable way”. (www.statoilhydro.com).

5.4.4 Petrobras

To demonstrate how developing nations could leverage on their expertise and a valuable learning for PetroSA, given its GTL know-how, Brazil through its NOC Petrobras is a case in point.

PetroSA operates one of the world’s GTL complexes at Mossel Bay in South Africa and acquired sixteen years of operational experience through the challenges of commercializing the GTL process. PetroSA’s GTL plant and processes are now well proven, a culture of operational excellence has been firmly embedded and a vision for the future of GTL has been forged. The vision demands that we continually leverage our operational experience to remain at the leading edge of technological innovation in the GTL arena (www.petrosa.com, 2008).

Petrobras on the other hand, an NOC from which PetroSA could learn as it further asserts itself in the GTL arena, has honed its deepwater skills and has built a strategy around exploiting opportunities where these technologies and capabilities represent a competitive advantage. The company has pledged to invest $1.3 billion in renewable energies over 2008-2012, part of its commitment to integration, diversity and sustainability. In particular, Petrobras has global ambitions for its role in biofuels, through international marketing and distribution, and leadership of domestic production and technological development. The company is currently constructing three industrial biodiesel production plants in Brazil, each due to come online in 2008 (Ernst & Young, 2008, p5).
5.4.5 India’s ONGC

According to Madan (2007, p.1) in 2007, India’s Oil and Natural Gas Corporation (ONGC) had the highest net worth and the second highest market capitalization of all corporations in India.

As India’s largest exploration and production (E&P) company, the 74.11% state-owned and publicly listed ONGC alone holds the exploration (as well as mining) rights for more than half of the hydrocarbons acreage licensed out by the Indian government (Directorate General of Hydrocarbons, 2006, quoted in Madan, 2007, p.2).

It accounts for a little more than three quarters of Indian crude oil production and more than two-thirds of its natural gas production (Ministry of Petroleum and Natural Gas, 2007, quoted in Madan, 2007, p.2).

Currently ONGC is following a two-pronged strategy, one domestic, the other international (Madan, 2007, p.45).

**Domestic:**

- Increasing E&P efforts.

  According to NOGC’s latest 5 year plan (2007-2012) quoted in Madan (2007, p.45) the company intends to spend $19 billion to achieve the production targets that have been set for it by the Indian government for the plan period, 140.06 million tons (Mt) of oil and 112.39 billion cubic meters (Bcm) of natural gas.

- Increasing Recovery.

  ONGC is aiming to improve the recovery factor at its existing fields, from the current 28% to 40% (Madan, 2007, p48).
• Integration & Diversification.

Over the past year, ONGC has moved towards becoming an integrated company, entering into the refining sector through its purchase of its subsidiary MRPL (MRPL owns 9% of the country’s refining capacity), and dabbling in retailing as well.

In addition, ONGC owns and operates close to 11,000 km of pipelines across the country and offshore (ONGC, 2006, quoted in Madan, 2007, p.2). Moving beyond the hydrocarbon sector, the company has recently also gone into the power generation business with investment in a 750-MW gas-fired power plant (Madan, 2007, p.2).

International:

From the Indian government’s perspective, the acquisition of upstream assets abroad will not single-handedly take care of India’s energy security needs, but it is necessary for ONGC to pursue every possible option to diversify and supplement domestic sources of supply as part of the country’s energy security strategy (Madan, 2007, p.53).

From ONGC’s point of view, its overseas efforts reflect a desire to both expand supply and enhance revenue (Madan, 2007, p.52). Madan further contend that even detractors acknowledge that, at the very least, this policy has been providing better returns for ONGC than their investments at home.

Therefore as part of their international strategy, ONGC through its subsidiary, the upstream assets acquisition company OVL, has undertaken more than two dozen projects in over a dozen countries, producing 4.73 million tons of oil and 1.71 million ton equivalent of gas in 2005-2006 (Business line, 2007, p.3, quoted in Madan, 2007, p.51).

ONGC’s international strategy is limited by the government mandate for it not to aim for more than one quarter of the country’s production to come from abroad, to encourage further development of the domestic upstream petroleum industry.
In fact estimates are that only 25% of India’s oil needs could be met even if all its companies’s overseas assets were producing oil (MeKinsey Quarterly, 2005, p.95 quoted in Madan, 2007, p.51).

5.4.6 Saudi Aramco

Saudi Aramco is a national oil company fully owned by the government of Saudi Arabia and is the largest oil producer and holder of oil reserves in the world.

The company has maintained the top position in the Petroleum Intelligence Weekly’s annual world oil production ranking since the ranking began in 1998, and is widely perceived as the most powerful and influential oil company globally (Kobayashi, 2007, p.1).

Saudi Aramco’s strategies are pursued to take advantage of opportunities and to minimize threats. In the 1990s, Saudi Aramco’s corporate strategies tended to focus on improvements in profitability and cost reductions in its existing business. In the last two to three years, however, the company has moved towards cultivating extensive capacity expansions in all of its business (Kobayashi, 2007, p.9).

Below are some of the strategies currently being pursued by Saudi Aramco:

- Revitalizing Exploration

  Saudi Aramco has become more aggressive in its exploration activities over the last few years. This is a strategy to solidify the company’s strengths with opportunities as they arise, namely, a tactic to discover additional low-cost oil and gas reserves with a sufficient amount of investment (Kobayashi, 2007, p.9).
Expansion of Oil Production Capacity

According to Kobayashi (2007, p.12) the company’s effort to raise production capacity and to secure surplus capacity is also considered a strategy to reinforce its current strengths by taking advantage of this opportunity. Kobayashi further contends that maintaining sufficient spare capacity has been a primary source of Saudi Arabia’s unrivaled influence over the international oil market.

Vertical Integration

Saudi Aramco has accelerated its investment in the refining sector. These expenditures are an effort to make up for its large refining deficit and to minimize the adverse effect a potential widening of the light-heavy spread would have on the crude oil market by securing sophisticated refining capacity able to process Saudi Aramco’s heavier crude (Kobayashi, 2007, p.14).

According to Kobayashi, vertical integration, in fact, has been one of Saudi Aramco’s consistent strategies because Saudi Aramco’s refining capacity is small relative to its upstream capacity, quite a mix match given the huge revenues derived from oil exports.

5.4.7 The National Iranian Oil Company

The National Iranian Oil Company (NIOC) manages and exploits an estimated 132.5 billion barrels of oil and 296 trillion cubic meters of gas in proven reserves. This makes Iran the second largest oil producer and holder of reserves in the world (Brumberge, 2007, p.1).

In 2006 NIOC generated some $46.9 million in oil export revenue, some 40-50 percent of the government’s budget (Energy Information Admin, 2006, quoted in Brumberge, 2007, p.1). NIOC has three sister organizations that are technically independently incorporated under the Oil Ministry, but function as NIOC affiliates handling gas (National Iranian Gas Company), petrochemicals (National Petrochemical Company) and refining (National Iranian Oil Refining) (Brumberge, 2007, p.2).
By 2004 estimates, NIOC infrastructure includes thirty-three onshore and thirteen offshore oil fields. NIOC and its affiliates also operate nine refineries, six crude terminals, a tanker fleet, and a nation-wide distribution system (Arab Oil and Gas Directory, 2005 quoted in Brumberge, 2007, p.3).

Brumberge (2007, p.3) contend that since its establishment during the Mossadeq crisis of the 1950s, NIOC has faced two often contradictory demands:

- On one hand, oil is a fungible economic commodity that must be traded to be available. NIOC must sell in the international market to generate revenue for the Iranian national treasury. The state can then use these funds as it sees fit.

- On the other hand, oil is and inalienable national patrimony, a symbol of Iran’s national strength. In this regard, NIOC’s role is to guard this patrimony, ensuring that it is only used to benefit the nation as a whole. Crass economic calculations must be abjured in favor of equality and social justice.

Nevertheless, much of NIOC’s strategic planning in the last five years has focused on three priorities (Brumberge, 2007, p.3):

- Recovering and Rejuvenating Older Oil Fields;
- Maximizing the Potential for Gas and
- Increasing Refining Capacity

Although NIOC’s efforts, have consistently fallen short of its production goals and remain strapped by increasing demands for domestic consumption. In fact it is estimated that by 2015, Iran will no longer be able to export oil (Stern, 2007, quoted in Brumberge, 2007, p.3).
5.4.8 China National Petroleum Corporation

China National Petroleum Corporation (CNPC) and its listed subsidiary PetroChina are examples of the advancing Asian NOCs which have increasingly become main players on the global stage (Ernst & Young, 2008, p.4).

CNPC is the largest NOC in China and the fourth largest oil company in the world in terms of reserves, according to an Oil and Gas Journal -2000 company list quoted in Xu, 2007, p.5).

According to Xu (2007, p.1) of the James A. Baker Institute for Public Policy, China has received much attention not only as a huge energy consuming market but also as an increasingly important global stakeholder whose strategies and decisions will have a great impact on the entire world.

Xu observes that it has been noted by many that Chinese oil demand represented over 35-40 percent of the world’s new requirements for oil. As a result, Chinese oil imports and overseas ventures by its national oil companies are receiving closer attention.

Ernst & Young (2008, p.4) agreeing with Xu, notes that CNPC owns upstream and downstream assets in around 27 countries, across Africa, the Middle East, North and South Americas and Asia. It also markets its oilfield services, construction and engineering skills in almost 50 countries worldwide.

They highlight that as part of its internationalizing strategy, CNPC defeated competing interests from India’s ONGC and Russia’s Lukoil, with a $4.18 billion acquisition of PetroKazakhstan, a Toronto-listed explorer with exploration and development rights in Kazakhstan. The acquisition gave CNPC a strategically important foothold in resource rich Kazakhstan.

Moreover in November 2007, PetroChina floated A-shares on the Shanghai stock exchange, raising $8.9 billion to fund upstream and downstream projects both at home and overseas.
The listing set a new domestic record, attracted record subscriptions and made PetroChina the world’s largest company by market value at that time (Ernst & Young, 2008, p.4).

5.4.9 Lukoil – Russia’s Largest Oil Company

Lukoil is not a state oil company, but is the oldest, biggest and best known of the giant corporations that grew out of the ruins of the Soviet Oil Ministry, it is perhaps in this context that it forms part of this study’s literature review on NOCs. According to Gorst (2007, p.1) Lukoil has long been a flagship of the Russian oil industry both at home and abroad.

Gorst further content that, at its inception, Lukoil was Russia’s first bold experiment with private oil ownership and with decentralized oil industry decision making. But the company, sometimes pioneering oil policy, sometimes following orders, has always acted in close coordination with the government, often presenting itself as a faithful servant of state.

In fact in his 25th November 2005 National Oilmen’s Day quoted in Gorst (2007, p.4) Alekperov, Lukoil’s founder and President asserted that:

The efficient development of reserves is directly linked to national security. On the one hand, it preserves the economic integrity of the country; on the other hand, it strengthens national positions in the international arena. The concept has always been the same: in the Russian Empire, in the Soviet Union and in the Russian Federation. It will remain this way, until the ‘oil era’ is over.

This statesman like declaration makes abundantly clear Lukoil places national loyalty high in its strategy, a strategy that seems to have largely worked, judging by the company’s survival in the midst of the current context of the Russian oil industry where a company that is 100% privately owned is “a member of the shrinking club” according to Gorst.

According to Gorst (2007, p.2), in the past three years the Russian government has steadily reasserted control over the oil and gas sector.
State companies such as Rosneft and Gazprom which function as natural gas monopolies, have build up their oil portfolios largely at the expense of the private sector, for example, Yukos lost almost 60% of its 1.8 million barrels a day production to Rosneft when its West Siberian producer, Yuganskneftegaz, was sold at an auction in December 2004 held to help the federal authorities recover billions of dollars worth of alleged tax arrears. Yukos was officially declared bankrupt in 2006.

Sibneft, like Yukos, one of the biggest success stories of the Russian oil industry in the early part of the decade, was taken over by Gazprom in 2005 and now forms the core of the natural gas monopoly’s new oil unit Gazprom Neft (Gorst, 2007, p.2).

Despite its loyalty to government strategy, Lukoil has an intensive growth strategy announced in October 2006 that outlined plans to invest $66 billion, boosting combined oil and gas production to 4.2 million barrels of oil equivalent (boe) by 2016.

Table 2 below shows Russian oil production by company. Lukoil is top on the list despite its private ownership, further evidence that its strategy has largely worked.

<table>
<thead>
<tr>
<th>Company</th>
<th>Oil Production (barrels/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lukoil</td>
<td>1.79 million</td>
</tr>
<tr>
<td>TNK/BP</td>
<td>1.55 million</td>
</tr>
<tr>
<td>Rosneft</td>
<td>1.5 million</td>
</tr>
<tr>
<td>Surgutneftegaz</td>
<td>1.28 million</td>
</tr>
<tr>
<td>Sibneft</td>
<td>664.3 thousand</td>
</tr>
<tr>
<td>Tafneft</td>
<td>493.5 thousand</td>
</tr>
<tr>
<td>Yukos</td>
<td>492.7 thousand</td>
</tr>
<tr>
<td>Slavneft</td>
<td>486.7 thousand</td>
</tr>
<tr>
<td>Bashneft</td>
<td>362 thousand</td>
</tr>
</tbody>
</table>

Source: Gorst, 2007, p.9
5.5 Summary of key findings on NOC’s

NOC’s have important national goals that go beyond the maximization of return on capital to shareholders. These include:

- Oil wealth redistribution to society at large;
- Wealth creation for the nation;
- Industrialization and economic development;
- Energy security, including assurance of domestic fuel supply and security of demand for producing nations
- Foreign and strategic policy and alliance building, and
- Participation in national level politics.

NOC’s national priorities sometimes interfere with the firm’s ability to:

- Maximize the value of oil resources;
- Replace reserves;
- Expand production, and
- Perform in a technically efficient manner.

(Also see presentation: www.rice.edu/energy/publications/docs/NOCs/Presentations/Hou-Jaffe-KeyFindings.pdf)
6. DATA ANALYSIS

According to Suddaby (2006, p.634) the method described by Glaser & Strauss (1967) is built upon two key concepts: “constant comparison,” in which data are collected and analyzed simultaneously, and “theoretical sampling,” in which decisions about which data should be collected next are determined by the theory that is being constructed.

In line with Glaser & Strauss in this study, data collection and interpretation were done almost simultaneously. The original interview questionnaire used when the VP’s and other PetroSA managers were interviewed was slightly revised since it did not probe on the role of the board; CEF (PetroSA’s holding company) and other stakeholders such as the trade unions etcetera.

The revised questionnaire was used during the interviews with the CEO and Company Secretary to solicit the additional data required. The original interview questionnaire was also slightly simplified when the lower level employees/operational staff were interviewed to ensure that the questions were easily understood.

- **Step 1**

  The first step in the data interpretation process was the transcribing of the interviews to facilitate better data interpretation; transcriptions are easier to interpret and to refer to.

  The data was then divided into segments that reflected the organizational hierarchy or seniority within the organization. This was done to better gauge how different levels within the organization understood and related to the company’s strategy and strategy formulation process (to guarantee the confidentiality of the interview respondents, the interviewees have been denoted as numbers 1- 44, appendix 14).

  The segments emerging out of that process therefore are:

  - Executive management (EXCO)
  - Senior management (MANCO)
- Level 4 managers and other professional/specialist category employees
- Lower level employees/operational staff.

The data set was further reduced through fusing together common responses, in line with Straus & Corbin (1990, 1998 quoted in Leedy & Ormrod, 2005) who refers to this process of dividing data into segments and then scrutinized for commonalities as open coding.

**Step 2**

Interconnections were then sought from the responses from the different groups. This was done to put certain claims made especially by the lower category employees into context.

For example, there was a strong claim by some members of this group, that lower level employees had no clue as to the PetroSA strategy as they did not participate in strategy formulation and strategy was not sufficiently communicated within the organization. Some responses from people within this group diffuted this claim, these responses were similar to those from the executive and senior management (appendix 11.4).

The main difference was how strategy was articulated depending on seniority, that is, the executive management for example, seemed to articulate the PetroSA strategy more precisely, while some of the lower level employees who seemed to understand the PetroSA strategy captured some aspects of it quite correctly in their responses although not necessarily articulating them as precise as the executive management.

**Step 3**

In line with Straus & Corbin (1990, 1998 quoted in Leedy & Ormrod, 2005, p.140) the interrelationships prevalent from the responses were then combined and yielded a story line around the PetroSA strategy formulation process, this led to the emergence of a proposed strategy development model for PetroSA (figure 2).
In line with Pandit (1996, p.2) it should be borne in mind that theories can’t be built with actual incidents or activities as observed or reported, that is, from “raw data”.

The incidents, events, happenings are taken or analyzed as potential indicators of phenomena. As the researcher encounters incidents, and when after comparison they appear to resemble the same phenomena, can the theorist accumulate the basic units of theory.

Leedy & Ormrod (2005, p.140) aligned with Pandit (1996, p.2) further contend that a grounded theory study uses a prescribed set of procedures for analyzing data and constructing a theoretical model from them. The term grounded refers to the idea that the theory that emerges from the study is derived from and “grounded” in data that have been collected in the field rather than taken from the research literature.
7. FINDINGS

- Data interpretation reveals that until the launch of “VISION 2020” in September this year, the PetroSA strategy was not very focused and coherent. The executive management during their interviews with the researcher admits this and hailed the new strategy as something the organization desperately needed. An example of a man sitting under an African tree was cited as an illustration that our Journey “from Cape to Cairo” aimed at year 2030 seemed more of an unattainable dream that a realistic path towards the realization of a realistic vision.

According to Brocklesby & Cummings (2007, p.292) a company’s strategy, should not just be thought of as its policy or its planning, but how all of its ‘doing’ orients it, or sets it up to deal with the present and face the future.

Organizationally, what counts is not just what strategic managers think, or what they analyze, or what they decide; it is about organization-wide action and orientation to act. If the organization has not learned how to orient itself in such a way that the relevant cues are picked up, then it risks failing to perform. Consequently managers must ensure that they nurture an environment where their people are actively ‘looking in the right direction’ so to speak.

- PetroSA does seem to follow a structured process in formulating its strategy as evidenced from the responses of those close to strategy formulation, the executive and senior management. The researcher also had the liberty of attending one strategy session facilitated by the Corporate Strategy and Planning Department and witnessed the process followed in formulating the strategy. Despite this, the lower level employees, trade union representatives as well as some level 4 managers and professional category employees some of whom are in possession of a PhD degree did not know whether PetroSA followed a structured process in formulating its strategy. In their view this was because they were not involved in strategy formulation and their views were not taken into account in that process.
There are no clear guidelines to strategy formulation at PetroSA or at least the guidelines are not well documented. A strong desire for documented guidelines was expressed by all levels, this would ensure continuity should those vested with the responsibility to formulate strategy currently no longer play this role.

On the role of the board, the PetroSA board as expected provides direction to the organization and participates in strategy formulation. Their role in the strategy formulation process is to interpret shareholder mandate and communicate this to the executive who then draft a strategy in line with that mandate.

According to Lorsch & Clark (2008) major public companies, like PetroSA are important engines of economic prosperity, and boards have a paramount obligation to see that these national assets thrive. The decline and ultimate failure of once-great companies has been a historical fact, But such decline is not inevitable, Rather, it results when corporate leaders (CEO and directors alike) don’t anticipate and deal with long-term threats facing their companies.

In assuming leadership of their companies’ long-term destiny, boards first need to be clear with themselves and with management about the complementary roles each side must play. Each group must be realistic about what it has the time and knowledge to do on its own. Different boards and management teams will define their roles differently, of course, according to the company circumstances. In general, however, management will develop and propose long-range plans, and the board will react to these proposals and debate among itself (and with management) their validity and wisdom, for approval (Lorsch and Clark, 2008). This level of board involvement is viewed by some as mere window dressing.

Nadler (2004) on the other hand contends that if a CEO is sincere about finding a level of board engagement that goes beyond mere window dressing, he or she should consider involving the board in the development of corporate strategy. He is of the view that Directors “want to understand the strategy of the business and want to have opportunities to shape and influence it”.

Yet, while some directors are both eager and equipped to contribute to strategy development, they are likely to become frustrated because many corporations do not have a process to involve them in a substantive way.

Nadler (2004) sees distinct benefits for companies that systematically and effectively involve their boards in setting strategic direction. Not least of these is enhanced board-management collaboration, which carry-over to other board-management interactions. Additionally, a board engaged in strategy development becomes better educated about the company and more committed to its chosen direction.

- With regards whether the PetroSA strategy was sufficiently communicated to the organization and whether the strategy formulation process was inclusive, again the launch and communication of “VISION 2020” was cited by the executive management as evidence of how well the company’s strategy was communicated. They admitted though that in the past they did not communicate strategy as much as they should have and that there was room for improvement in that regard. The executive management strongly believed that the strategy formulation process was inclusive.

Contrary to the executive management’s view with regards to strategy communication and inclusiveness, the lower levels, including managers at levels 3 and 4; trade union representatives and the operational staff were of the view that, notwithstanding the launch of “VISION 2020” the PetroSA strategy was not sufficiently communicated within the organization.

This category of workers strongly believed that the PetroSA strategy was not inclusive but rather elitist and discriminated against lower level employees. This excluded important views to the detriment of the organization, since a non-inclusive process lacked buy-in and negatively impacted execution. They believed that more needed to be done to ensure that the PetroSA strategy was deeply embedded in the minds of all the workers at PetroSA both in terms of being inclusive and in terms of communication.
There was a strong view that strategy needed to be communicated more regularly and that the communication of strategy should form a key component of the CEO’s road shows which are planned quarterly, a schedule not always honored by the CEO in their view.

This category of workers further recommended that the CEO cleared up his schedule for the road shows no matter what, and ensured that these took place as scheduled. That the divisional heads (VPs) should, using the same platform simultaneously share their divisional strategies to everybody in the organization.

This, it is believed, unlike with the current situation where the VPs share their strategies only with people in their divisions, would ensure that everyone became aware of every divisional strategy or objectives making it easy for all to see the connection with the corporate strategy.
8. PROPOSED STRATEGY MODEL FOR PETROSA

Emanating from the strategic conversations the researcher had with the PetroSA management and employees, and in line with the Hartling Corporation (2007) the following strategy formulation model is proposed for PetroSA:

- **Analyze**

  Analyze the external environment such as the political; economic; societal; technological; environmental and legal factors that have a direct bearing on the company’s strategy. The existence of the newly formed political party, the Congress of the People (COPE) was cited as something that should have been considered when the strategy for the year 2009 onwards was formulated, yet in all the strategy sessions held there was no mention of the impact the existence of COPE could have on the running of state owned entities if it gained a considerable share of ANC vote diminishing the ANC’s considerable power.

- **Design**

  Design performance management systems that explicitly link long-term strategic objectives to annual strategic plans and specific short-term deliverables. PetroSA currently uses a balanced scorecard approach (performance management system) that focuses at the following key performance indicators: Financial perspective; Customer Perspective; Business Processes; Innovation Learning & Growth, coupled by a Performance Improvement Plan.

  While applied correctly this is a good performance management system the interviewees especially at lower levels believe that this system is not being used efficiently and that line management did not fully appreciate what the system is intended to do and fail to explain the
link with the company’s strategy to their subordinates. Hence despite the existence of this tool these workers believed they did not input into the company’s strategy.

- **Plan**

The planning part includes coming up with a strategy formulation schedule or year plan that takes into account time frames related to the process. The plan should include board engagement, employee input/suggestions, trade union engagements, draft divisional strategies; corporate strategy formulation; feedback and workshops.

- **Approve**

This step would entail the executive management approving the final divisional draft strategies or objectives and submitting to the board who would then approve the final corporate plan/strategy.

- **Implement**

The final step in the strategy process would then be actual strategy execution supported by a budget resulting from a process that would have run concurrent with the strategy formulation process.
9. CONCLUSIONS

- While PetroSA follows a structured process in formulating its strategy, not everyone within the organization is aware of this process, even employees within the Professional category or Specialist group some of whom are highly qualified, possessing a PhD in Chemistry for example asserted that they did not know how the PetroSA strategy was formulated.

- Even if strategy formulation did not need to be widely inclusive, it was quite peculiar that such highly qualified individuals would be excluded from strategy formulation.

- This situation, strategy formulation process not being inclusive and sufficiently communicated could be rectified, by taking advantage of the excitement around the company’s latest strategy “VISION 2020” and communicating it quite aggressively, this would ensure that moving forward all PetroSA employees have an appreciation of where the organization intends to go and how it planned to get there.

- PetroSA is quite a young national oil company, the company or at least the merged entity is in existence for only 6 years now (PetroSA was officially formed in 2002), its market share in South Africa is currently 7%, the organization has thus still a long way to go towards becoming a fully integrated national oil company playing a visible role within the South African Petroleum sector and in the broader society.

- The company’s counterparts elsewhere in the world achieved their full integration over a time frame of 25 years and above. Petronas for example, realized their dream only in 1999 some 25 years after the company’s inception in 1974 (Bowie, 2001).

- Therefore especially given its young age, the organization seems to be well on its path to achieve its ultimate goal, of gaining a 25% market share of liquid fuels in South Africa by 2020. A position that would ensure that it discharges its responsibilities as a national oil company more effectively.
10. BIBLIOGRAPHY


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APPENDIX 11.1:

CONFIDENTIALITY STATEMENT

Research Purpose

The purpose of this study is not to test hypotheses rather the research seeks to establish whether, given the complexities of working as a commercially mandated organization, while being a vehicle to advance broader national objectives, PetroSA follows a structured process in developing its strategy. That is, the researcher seeks to gain an understanding of the strategy formulation process at PetroSA. In line with the grounded theory research philosophy this enquiry could lead to a proposed strategy development model for PetroSA.

Expectation from Interviewees

The researcher hopes for an open conversation with the interviewees on the PetroSA strategy. That is, the researcher wants to gauge the views of the interviewees on the PetroSA strategy.

Confidentiality Statement

There are no known risks or dangers to you associated with this study. The researcher will not attempt to identify you with the responses to the questionnaire, to name you as a participant in the study, nor will he facilitate anyone else’s doing so.

Acknowledgement by Interviewee

I acknowledge that I am participating in this study of my own free will. I understand that I may refuse to participate or stop participating at any time without penalty. If I wish, I will be given a copy of this consent form.

Interviewee’s Signature                                           Date
-------------------------------------------------------------------

Researcher’s Signature                                           Date
-------------------------------------------------------------------
APPENDIX 11.2:

INTERVIEW QUESTIONS (EXECUTIVE & SENIOR MANAGEMENT)

1. How would you describe the PetroSA strategy?
2. What are PetroSA’s strategic objectives?
3. How would you describe the PetroSA strategy formulation process?
4. What factors do you think are important to strategy formulation at PetroSA?
5. Does PetroSA follow a structured approach in formulating its strategy?
6. Are there guidelines to strategy formulation at PetroSA?
7. What in your view should be the role of a national oil company such as PetroSA?
8. How is PetroSA doing in terms of meeting its objectives as a national oil company?
9. Would you say divisional objectives and strategies at PetroSA are aligned with the corporate strategy and objectives?
10. What assumptions inform your divisional strategy?
11. How aligned are divisional assumptions to the corporate assumptions?
12. How do you test the validity of your divisional assumptions?
13. What does the scorecard approach mean to you?
14. Is the PetroSA strategy sufficiently communicated to the organization?
15. Does PetroSA follow an inclusive approach in formulating its strategy? How can the strategy formulation process of PetroSA be improved?
16. Could we improve the effectiveness of the strategic conversation or thinking at PetroSA?
17. What factors affect how well our strategic thinking translates into action?
18. Looking back at all we have experienced and learned, what might be good learnings to apply to the way we approach strategy in the future?
APPENDIX 11.3:

INTERVIEW QUESTIONS (CEO & COMPANY SECRETARY)

1. What should be the role of a national oil company such as PetroSA?
2. What factors are important to strategy formulation at PetroSA?
3. Who are PetroSA stakeholders?
4. How are they engaged in the strategy formulation process?
5. Is there someone vested with the responsibility to ensure that stakeholder views and interests are taken into account in the strategy formulation process?
6. How is the board engaged in strategy formulation?
7. Does CEF play a role in the strategy formulation process?
8. Would you say PetroSA follows a structured approach in formulating its strategy?
9. Are there guidelines to strategy formulation at PetroSA?
10. Is the PetroSA strategy sufficiently communicated to the organization?
11. Does PetroSA follow an inclusive approach in formulating its strategy?
12. How is PetroSA doing in terms of meeting its objectives as a national oil company?
13. Could we improve the effectiveness of the strategic conversation or thinking at PetroSA?
14. What factors affect how well our strategic thinking translates into action?
15. Looking back at all we have experienced and learned, what might be good learnings to apply to the way we approach strategy in the future?
APPENDIX 11.4:

INTERVIEW RESPONSES TO THE BOUNDARY QUESTION

### PART A

**What is the PetroSA strategy/ What are PetroSA strategic objectives?**

<table>
<thead>
<tr>
<th>INTERVIEWEE</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Management</td>
<td>1. CEO was not asked this question, researcher deemed it unnecessary to ask the CEO to describe the strategy, especially given that he outlined the strategy during the VISION 2020 launch which all PetroSA employees attended.</td>
</tr>
<tr>
<td></td>
<td>2. To carry out as mandated by the government of the Republic of South Africa, inter alia:</td>
</tr>
<tr>
<td></td>
<td>- Operate in a commercially sustainable manner</td>
</tr>
<tr>
<td></td>
<td>- Growth, achieve 25% of the liquid fuel market share in South Africa by year 2020 and grow PetroSA’s oil and gas reserve portfolio</td>
</tr>
<tr>
<td></td>
<td>- Sustainability of the GTL plant in Mossel Bay, through securing feedstock for the plant.</td>
</tr>
<tr>
<td></td>
<td>- Drive transformation in the South African petroleum and petrochemical industry, through advancing BBBEE and supplier development initiatives and Employment Equity.</td>
</tr>
<tr>
<td></td>
<td>3. To:</td>
</tr>
<tr>
<td></td>
<td>- Achieve 25% of the liquid fuel market share in South Africa by year 2020.</td>
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</tr>
<tr>
<td><strong>Sustainability of the GTL plant in Mossel Bay, PetroSA’s main source of income.</strong></td>
<td><strong>Drive transformation in the South African petroleum and petrochemical industry.</strong></td>
</tr>
<tr>
<td><strong>4.</strong></td>
<td>To carry out as mandated by the government of the Republic of South Africa, inter alia:</td>
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<td></td>
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</tr>
<tr>
<td><strong>Operate in a commercially sustainable manner</strong></td>
<td><strong>Ensuring security of supply, achieve 25% of the liquid fuel market share in South Africa by year 2020 and grow PetroSA’s oil and gas reserve portfolio</strong></td>
</tr>
<tr>
<td><strong>Sustainability of the GTL plant in Mossel Bay, through securing feedstock for the plant.</strong></td>
<td><strong>Drive transformation in the South African petroleum and petrochemical industry, through advancing BBBEE and supplier development initiatives and Employment Equity.</strong></td>
</tr>
<tr>
<td><strong>5.</strong></td>
<td>Could not be interviewed due to urgent trip to Venezuela</td>
</tr>
<tr>
<td><strong>6.</strong></td>
<td>To carry out as mandated by the government of the Republic of South Africa, inter alia:</td>
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</tr>
<tr>
<td><strong>Operate in a commercially sustainable manner</strong></td>
<td><strong>Growth, achieve 25% of the liquid fuel market share in South Africa by year 2020 and grow PetroSA’s oil and gas reserve portfolio</strong></td>
</tr>
<tr>
<td><strong>Maintaining operations at the GTL plant in Mossel Bay, through securing feedstock for the plant.</strong></td>
<td><strong>Drive transformation in the South African petroleum and petrochemical industry, through advancing BBBEE and supplier development initiatives and Employment Equity.</strong></td>
</tr>
</tbody>
</table>
| 7. | To carry out as mandated by the government of the Republic of South Africa, inter alia:  
|    | - Operate in a commercially sustainable manner  
|    | - Growth, achieve 25% of the liquid fuel market share in South Africa by year 2020 and grow PetroSA’s oil and gas reserve portfolio  
|    | - Maintaining operations at the GTL plant in Mossel Bay, through securing feedstock for the plant. |
| 8. | Company secretary was not asked this question. The researcher like with the CEO deemed it unnecessary to ask Company Secretary to describe the strategy. Her questions were mainly focused on governance issues.  
| 9. | I think PetroSA strategy is about sustaining Mossel Bay GTL refinery  
|    | - Secondly to contribute at least 25% of the fuel supply for the country  
|    | - As well as to transform the oil and gas sector in terms of BEE but also from the skill development and employment equity point of view. |
| Senior Management |  
| 10. | To carry out as mandated by the government of the Republic of South Africa, inter alia:  
|    | - Achieve 25% of the liquid fuel market share in South Africa by year 2020.  
|    | - Ensure security of supply through  
<p>|    |   - Securing feedstock for the PetroSA GTL refinery |</p>
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</table>
|   | - The building of a crude oil refinery  
  - Develop petroleum industry related infrastructure such as fuel depots, terminals, service stations etc.  
  - Drive transformation in the South African petroleum and petrochemical industry, through advancing BBBEE and supplier development initiatives and Employment Equity. |
| 11. | - I think it is to be a leading energy company specifically within the African continent.  
- Production and reserve replacement the actual production and reserve figure are not clear to me at this point. |
| 12. | - For me the PetroSA strategy is something that addresses the energy needs for the country as a whole not just something for the company.  
- Being a state company is a huge responsibility on company to provide certain percentages of total fuel consumption within the country.  
- Key strategic objective is to increase local sustainability of fuel.  
- Employment creation and skills development.  
- Supplier development and growing black owned business in particular and creating more opportunities for black business.  
- Creating more sustainable communities in terms of the corporate citizenship work that the company does, thus our CSI work enhances PetroSA value as a good corporate citizen. |
| 13. | - Sustainability of the Mossel Bay plant and the long term sustainability of the business as a whole.  
- Sustaining feedstock to the plant  
- Development of our upstream business with focus on Africa, that is, grow our oil and gas production and reserves. |
| 14. | • Grow PetroSA market share to 25% by 2020.  
      • Security of Supply  
      • Advancement of BBEEE |
|-----|------------------------------------------------------------------------------------------------------------------|
| 15. | • I would say it’s a group of loose ideas at the moment  
      • I don’t see anything being very tight and complete  
      • It is not as cohesive as I would like it to be.  
      • There are too many initiatives or little projects which are not necessarily advancing our strategic objectives.  
      • Explicitly stated though it is to supply 25% of the countries’ fuel requirements.  
      • Black Economic Empowerment |
| 16. | • Security of supply for the country  
      • Growth and sustainability, securing feedstock for the Mossel Bay plant and the building the crude refinery in Coega.  
      • Commercializing our GTL technology and our LTFT technology  
      • Advancing transformation of the petroleum industry through such interventions as BBEEE, supplier development, employment equity etc. |
| 17. | • I can only talk about VISION 2020 because I had an opportunity to have exposure in the formulation of that strategy.  
      • The PetroSA strategy calls that by year 2020 the organization wants to achieve a 20% market share in the liquid fuels industry.  
      • Financial sustainability of the business  
      • Grow the business so that we could achieve the 25% market share by 2020, through such interventions as project Mthombo a 400 barrels
per day crude oil refinery that PetroSA are planning to have built by 2014 at Coega in the Eastern Cape.
- Job creation and skills development
- Transformation, the advancement of BBBEE, employment equity, supplier development, job creation and skills development.
- Contributing to poverty alleviation in South Africa.

| 18. | Focusing on the GTL plant I would say that our strategy is to: |
|     | - Operate the plant in a commercially viable manner |
|     | - Sustain the plant beyond the time that our current gas reserves are predicted to decline, through obtaining alternative means of feedstock and further exploration of the bredasdorp basin for gas. |
|     | - Increase the profitability of the GTL plant to ensure that it can afford to buy additional feedstock from external sources once PetroSA’s own gas production fall below the commercial threshold for the GTL plant. |
|     | - Product diversification in support of the sustainability of the GTL plant by diversifying into more revenue generation products. |
|     | - GTL Technology development to ensure that we leverage on how unique know-how. |

| 19. | Sustenance and growth that firmly puts PetroSA on the road to becoming a fully integrated National Oil Company. |
|     | - Increasing the company’s market share of liquid fuels from 5% to 25% |
|     | - PetroSA to achieve sustained commercial viability. |
|     | - PetroSA to achieve transformation on a continuous basis. |
- Operating PetroSA in line with best international practices with regards to Safety, Health, Environment, and Quality.
- To contribute to the macro-economic objectives of the country.
- To ensure security of supply
- Exploration and Production (Feedstock and non-feedstock): Placing primary focus on gas projects in Southern Africa and selectively developing opportunities to access gas or crude in other parts of the world.
- Diversification from MOU: Enter retail and commercial market
- GTL and COD commercialisation: Developing projects to enhance GTL and COD commercialisation efforts.
- Infrastructure development: Placing PetroSA at the forefront of the next refining facility by building and/or upgrading infrastructure to handle crude and refined products

<table>
<thead>
<tr>
<th>Level 4 Managers/Specialists</th>
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</table>
| 19.                          | • To make fuel  
|                              | • To provide jobs  
|                              | • Supplement ESKOM electricity generation  
|                              | • To grow the company for example the planned crude refinery in Coega  
|                              | • To expand our business into the rest of Africa  |
| 20.                          | • Skills retention  
|                              | • Remain best competitor  
|                              | • Technology development  |
| 21.                          | • Growth  
|                              | • Transformation  
|                              | • Sustainability  |
| 22.                          | • Security of supply in South Africa  |
23. Feedstock for the GTL refinery in Mossel Bay
   In other parts of the world generate equity to offset decrease in CA as a result of oil imports.

24. Fluid! At best one could call it flexible, at worst erratic and inconsistent.
   From what I remember, its main objective is to further Government’s requirement for the provision of security of liquid fuel supply to the country.

25. I would say that the strategy is a good one aimed at enhancing the feedstock supply into the GTL refinery and thereby maximizing the operational effectiveness and cashflows of the GTL refinery, which will remain PetroSA’s main revenue earner until other projects, such as Mthombo, comes on stream in 2014.
   My understanding is that PetroSA’s strategic objectives for 2009/10 will focus on 3 areas, namely:
   - Sustainability
   - Security of supply
   - Transformation

These plans are consistent with the company’s Vision 2020 strategic goal under which the company wishes:

“To be a sustainable, fully integrated, commercially competitive, National Oil Company supplying at least 25% of South Africa’s national liquid fuel needs by 2020”.

26. Strategy is from Top Management down to
<p>| | |</p>
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<tbody>
<tr>
<td>workers</td>
<td></td>
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<tr>
<td>• Strategy is part of the DME strategy</td>
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<tr>
<td>• Strategy: there are too many of them.</td>
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27.

PetroSA Strategy is (from a distance) to access upstream assets to the benefit of SA.

PetroSA’s strategic objectives are the following:

• Improve the security of supply (fuel, oil and gas) to the country,
• Mitigate the impact of oil price variations and foreign currency exposure to the South African economy.
• Drive transformation throughout the oil, gas, fuels and petrochemicals value chain in South Africa.
• Champion and support Broad Based Black Economic Empowerment.
• Manage the contingency crude oil reserves and Strategic Assets of Government in Saldanha.
• Access upstream assets to the benefit of SA.
• Accelerate Employment Equity and capacity building for the Industry.
• Commercialisation of the intellectual property related to GTL technology.
• Competitively operate PetroSA in a sustainable commercial manner.

28.

• Security of supply. In SA: sustain feed to refinery. In other parts of the world generate equity to offset decrease in CA as a result of oil imports.
  • Current business
  • Exploration, oil and gas production – SA and Africa
  • GTL manufacturing in SA (add use technology in other parts)
  • Oil field farm-ins in Africa
| 29.  | To be a leading energy company in Africa  
|      | Long term sustainability of the GTL refinery  
|      | Develop strategic storage facilities for CEF as well as the country  
|      | Advancement of BBBEE and people empowerment.  

| Leadership other |  
|------------------|---------------------------------------------------------------|

| 30.  | I don’t know what PetroSA strategy is because it keeps on changing.  

| 31.  | Addressing security of liquid fuels supply through project Mthombo  
|      | Sustaining the GTL plant through finding feedstock  
|      | Diversification into the chemicals market  
|      | Leverage on our GTL know how  
|      | Transforming the business  

| 32.  | The PetroSA strategy is weird and confusing  
|      | Although I would say its focusing on achieving VISION 2020  

| 33.  | PetroSA strategy is to secure feed stocks for long term sustainability of its operation and to service already established international relationships and forging new ones.  
|      | Securing long term feed stocks.  

- Oil and chemicals trading  
- Oil terminal and storage  
- Future Business beyond present  
- Continue presence in the rest of the world  
- LNG  
- Increase SA refining capacity  
- Electricity generation (supplementing Eskom – pending)  
- CTL technology
<p>| | |</p>
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<tbody>
<tr>
<td><strong>Operations staff</strong></td>
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<td>35.</td>
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<td>36.</td>
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<td>38.</td>
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<td>39.</td>
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</table>

- **34.** Running GTL plant in full capacity  
- **34.** Planned crude refinery in Coega  
- **34.** Investments overseas  
- **34.** Secure future of PetroSA

- **35.** Commercial viability

- **36.** To look at future opportunities to grow the company, for example the planned crude refinery project is to ensure that growth.

- **37.** Finding new gas fields to sustain the GTL plant.  
- **37.** To optimize the production at the GTL plant  
- **37.** The planned crude refinery.

- **38.** Loss minimization  
- **38.** Ensuring feedstock for the GTL plant  
- **38.** The planned crude refinery  
- **38.** LNG project  
- **38.** Job creation

- **39.** I remember us going from Cape to Cairo  
- **39.** The building of a crude refinery in Coega  
- **39.** Strategy not clearly set

- **40.** Don’t really know what the PetroSA strategy is
<p>| | |</p>
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<tbody>
<tr>
<td>41.</td>
<td>● Don’t really know what the PetroSA strategy is</td>
</tr>
<tr>
<td>42.</td>
<td>● Don’t really know what the PetroSA strategy.</td>
</tr>
<tr>
<td>43.</td>
<td>● Don’t really know what the PetroSA strategy is</td>
</tr>
</tbody>
</table>
| 44. | ● I’m not well informed as to the PetroSA strategy  
● I believe Divisions at PetroSA operate in silos |
| 45. | ● To be a leading petrochemical company in Africa  
● To ensure feedstock availability for the GTL plant. |
## APPENDIX 11.4:

### INTERVIEW RESPONSES TO THE KEY RESEARCH QUESTION

#### PART B

Could you describe the PetroSA strategy formulation process

<table>
<thead>
<tr>
<th>INTERVIEWEE</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Management</td>
<td>The CEO was asked a question on how the board is engaged in terms of strategy formulation and answered as follows:</td>
</tr>
<tr>
<td>1.</td>
<td>The strategy formulation process is a very simple one, the board is responsible for strategy and policies.</td>
</tr>
<tr>
<td></td>
<td>Management is responsible for implementation of the strategy to support the policies which are set and approved by the board.</td>
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<tr>
<td></td>
<td>The strategy does not change that much.</td>
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<td></td>
<td>You may have been exposed to the VISION 2020 strategy, whereas previously our VISION has been to be the leading African energy company.</td>
</tr>
<tr>
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<td>VISION 2020 does not depart much from that.</td>
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<td>Being more specific you can not formulate strategy in a vacuum, you have to always refer to the mandate.</td>
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<tr>
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<td>The mandate is standing and the shareholders put emphasis on that mandate with the board taking queue from the shareholder.</td>
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<td></td>
<td>For instance for the past two years it was clear the issue of security of supply was quite important to the shareholders, and as an</td>
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</table>
organisation the board started to say if this was expected by the shareholders how can we respond.

- The response was to unpack the security of supply issue, to say ok fine there is an issue of infrastructure in this country and which maybe challenge, there is an issue of storage, there is an issue of location where the product is located and there is an issue of strategic stock.

- So we started hindering ourselves about an issue of infrastructure and through our colleagues in New Ventures midstream we are focussing on that.

- At this point we could only advise the shareholder but we can not do it ourselves, we know the shareholders has limited resources and our advise led to an issue which is not finalised yet, that is, who is responsible to hold strategic stock, like for instance talk that we had crude storage in Saldanha but there would be a turnaround to convert that crude into white product, into fuels.

- We therefore need to review the position of whether the oil company in the country should hold a strategic stock, so that is something the shareholder has to decide.

- Also as national oil company PetroSA is responsible for 30% of the product procurement in the country in terms energy security master plan but it has not been implemented yet.

- Thus on strategy once the mandate is clearly understood we say fine what would be our strategy, like for instance on the issue of security of supply, that is,

- We do a market analysis like for example this coming Monday we will sit with the board, and having analysed the market and discovered that there was a deficit in terms of product availability in the country, that is, South Africa is
already a net importer we decide on how best can we deliver on that.

- Remember the board is not responsible for the day to day running of the company so management will feed all that information to the board and then after the board has looked at all these things will they sit down and input on what strategy we should have.

- For example, will have to first fill the gap of importation, therefore there is a need for new quality crude refineries.

- Also during our analysis of the infrastructure we said currently South Africa’s crude refining is concentrated in Durban, and that should there be a crisis with the infrastructure in that area, for example that infrastructure being blown up, there would be serious consequences in terms of the security of supply. Therefore looked at alternative locations for a new crude refinery.

- We looked at Richards Bay, Gauteng etc., we were persuaded away from Gauteng due to already high CO₂ therefore would have difficulty with Environmental Impact Assessment etc.

- We finally agreed that a suitable location for the new refinery would be Coega in PE Eastern Cape.

- Remember as an NOC PetroSA must also influence policy and it must contribute to microeconomic performance indicators such as trade etc so you take all those into account.

- The board having considered all that now together with management put a strategy that we will build a refinery and also enter the downstream retail market.

- That way the strategy gets formulated overall.

- Summarily management formulates the strategy, feeds the information to the board, the board approves after going back and forth refining the strategy with management, the strategy then gets
communicated, that is, management has to come down to the organisation and say this is the strategy for the year and therefore to direct our efforts towards the goals as set out in that strategy and appraise the organisation accordingly.

- The Divisional Heads (VPs) first engages or communicates the strategy to the level 3 managers, through break-away sessions that are facilitated by the Corporate Strategy & Planning Division.
- At these sessions the divisions formulate objectives that will support the strategy as approved by EXCO and endorsed by the board.
- Availability of the necessary skills to support the strategy becomes important at this point, and HC focuses on skills development and retention to ensure effective implementation of the strategy.
- For example for us as an organisation to be successful in implementing VISION 2020 we need to transform.
- Up to now we have been taking transformation at an employment equity level, what we have not been doing is to transform our processes.
- In the main we still follow old Mossgas and Soekor processes depending on which process suits the particular situation best.
- We have now come up with a project that will support that transformation, the Group Management Framework.
- The Group Management Framework is aimed at aligning our processes such that we talk with the same voice, that is, we seek to come up with systems, procedures and policies that will ensure consistency in the implementation of our strategy, these are to be documented and should be accessible to all.
- Couple to this we look at what do we need to implement this, for example what resources are

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<th>No.</th>
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<td>1</td>
<td>The Divisional Heads (VPs) first engage or communicate the strategy to the level 3 managers.</td>
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<td>2</td>
<td>At these sessions the divisions formulate objectives that will support the strategy as approved by EXCO and endorsed by the board.</td>
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<td>3</td>
<td>Availability of the necessary skills to support the strategy becomes important at this point, and HC focuses on skills development and retention to ensure effective implementation of the strategy.</td>
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<td>4</td>
<td>For example for us as an organisation to be successful in implementing VISION 2020 we need to transform.</td>
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<td>5</td>
<td>Up to now we have been taking transformation at an employment equity level, what we have not been doing is to transform our processes.</td>
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needed to ensure effective implementation of our strategy.

- The organizational structure might also need to be reviewed to better align it with this new strategy “VISION 2020”.
- Another key element to effective strategy implementation are financial resources, therefore we need to look at whether we have resources to implement there, this kick-starts our budget process.
- We view our budget as being zero based, for example, last year I spent 2 million on consultants and this year the inflation has increased so I will spend 2,2 million and I sit down and say for me to achieve this I will need to get consultant for that and I will need lawyers for that, and then I put cost on those and say I may have put 5 million on consultants this year.
- When that budget is done it gets tested against our strategic objectives, that is, we check if for example the budgeted projects support our financial sustainability or not because we can not budget for a loss? Do they support our transformation? Do they support security etc.
- If the budget cannot support these projects we go back and review. After the reviews we submit and present it to the board having their own programs in mind might refer us back to take such programs into account in our budgeting.
- In terms of timing the planning cycle starts around July. In October – November the budget process starts. By this time we know that the strategy is approved and endorsed by the board.
- Around January we have to present our final budget to the board, and to CEF our holding company.
- Our budget remember also we are subsidiary

| 87 |
|-----------------------------------------------|------------------------------------------------|
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| Our budget remember also we are subsidiary |
central energy fund.

- Our budget thus has to be consolidated to CEF’s budget and in terms of PMFA state owned entities have to complete their budgets and submit them to national treasury a month before commencement of next financial year in March of each year.
- A component of the budget submission to national treasury is our strategy as well as the company’s borrowing plan.
- Because sometimes you find that you do not have sufficient resources so you have to go to the market and borrow some funds.
- The cycle therefore ends when we submit to national treasury.

3.

- I’m not sure if there is a beginning and an end to strategy formulation.
- Looking at how VISION 2020 was derived, VISION 2020 derives from the shareholder mandate that through the Energy Security Master Plan mandates PetroSA to ensure security of liquid fuels supply to the country.
- Let alone that PetroSA played a key role in developing the Energy Security Master Plan for South Africa lets say at an organizational level, the shareholder defined the mandate as set out in the Energy Security Master Plan.
- That mandate outlined the various areas that needed to be addressed, the need to expand domestic refining capacity, the need to diversify sources of energy, and the need to empower PetroSA, the national oil company of South Africa in such a manner as to enable it to procure 30% of South Africa’s crude requirements.
- Using that mandate as a guideline PetroSA developed its VISION 2020 strategy. Focusing on gaining a 25% market share by year 2020.
- The strategy formulation process looked at
internal PetroSA realities such as the fact that our operations largely dependent on feedstock, and given that these were currently in decline the revenue base of PetroSA is diminishing.

- This implies that our sustainability as an organization is threatened, and if the sustainability of the organization was threatened it becomes difficult to work towards meeting the shareholder objectives.
- This informed components of our strategy.
- For the first time this year we tried to solicit inputs into our strategy formulation from the general PetroSA workforce, through a strategy suggestion box that we put at the main entrances of all PetroSA buildings. We also targeted certain employees for input, through emailing them and asking for their views in terms of what our strategy should take into account. Whilst engaging the PetroSA general workforce in this manner is not perfect it is a step in the right direction in terms of ensuring that our strategy is inclusive.

4. What we do in New Ventures Upstream when we formulate our strategy, we look at different regions in which we have an interest or asset and set objectives for that particular region.
- We also simultaneously look at the PetroSA corporate strategic objectives and try to align our strategy to that, for example part of the PetroSA strategic objectives is to secure feedstock for the GTL plant in Mossel Bay, we at New Ventures Upstream take that objective and drive it since it falls within our area of responsibility.
- Since part of PetroSA is to increase our oil and gas production and increase our reserve, this is also something that is driven by New Ventures Upstream.
- Once we are clear on the priority areas/strategy we put a work program in place, an outline of
how we plan to achieve the set objectives.
- We then look at the required resources to ensure effective execution of the strategy.
- Through the facilitation of the Corporate Planning & Strategy Division we workshop the strategy, that is all the departments within New Ventures Upstream come together (the level 3 managers) and we workshop the strategy to ensure a coherent New Ventures Upstream strategy.
- Once we’ve formulated the divisional objectives/strategy we present them to EXCO for approval.
- Summarily the PetroSA strategy formulation process quite structured, it starts with the Mission, Vision, Goals and Corporate objectives and key focus areas being outlined. The formulation process then follows the steps as outlined in the points above.

| 5. | Could not be interviewed due to urgent trip to Venezuela |
| 6. | • What you need to look are the guiding principles and rationale behind strategy formulation, that is interrogate the mandate. |
| | • Our strategy informed by that long term view/mandate therefore is not necessarily changing every year but reviewed annually to taken into account the changing external environment. |
| | • For example we have always known that we always have to be bigger than we are now, but the question is how we get there. |
| | • And that start with a number of factors, we have shareholders who continue to tell us what they want from us. |
The board then interprets that mandate and together with executive management decides on how best we can deliver on it.

So idea generation starts with evaluating the external environment with EXCO formulating the strategy and going back to the board to present it.

The board looks at it and ask questions, check alignment in terms of what they wanted and then approves if satisfied.

There is criticism that our strategy formulation process is not inclusive, but the reality is that each division has certain expertise that are engaged in the strategy formulation process, but not everyone within the organization is necessarily gifted to make meaningful contributions to strategy formulation.

So somewhere in the organization people may feel that they do not have a say in terms of what type of assets we buy in the upstream business and so on or where we sell our crude, but the reality is that only particular divisions have the necessary expertise to make that call.

What we require in people is how to go about trying to achieve our objectives and targets.

All of us and shareholders stipulate their wishes and different sections are going to be covered by the different divisions within PetroSA.

Where we come from was smaller entities (Mossgas & Soekor) and everyone felt like they were being consulted but PetroSA is a much bigger entity and people may not feel as having been consulted as they used to be at Mossgas and Soekor. Consulting everyone on each and every other matter may not be possible in a bigger entity like PetroSA.

Otherwise the strategy cycle starts with the Board of Directors interpreting shareholder mandate.
EXCO then takes the mandate as interpreted by the board and communicate to the various divisions through the divisional heads who are members of EXCO.

Divisions then come up with their own objectives on how to deliver on that shareholder mandate in their respective areas of expertise in workshops facilitated by the Corporate Strategy and Planning Department.

The divisional objectives and plans on how to deliver on the mandate gets collected and are submitted to EXCO for further interrogation and ensuring alignment with the corporate mandate and objectives.

Once EXCO are comfortable with the divisional inputs, they submit the corporate strategy to the board for approval.

The board after satisfying themselves that the corporate plan/strategy is aligned to the mandate approve.

Once the board approves EXCO feeds back to the organization and the strategy is executed.

Where we need to improve upon is to align our budget process to the strategy formulation process instead of running these as 2 separate processes.

7.

The strategy formulation for the divisions in the organisation is informed by what it is that the organisation aspires to be.

The divisions then look at what they are responsible for as the division in terms of the organizational aspirations or mandate.

For example, within the operations division once the corporate strategy or direction has been set, the operations division look at how they will contribute to the attainment of the organization wide objectives.
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<td>Very important for the objectives to be realized is to ensure that people who must implement the strategy are not left out in the strategy formulation process as this could sabotage successful implementation as there will be no buy in from the actual implementers of strategy.</td>
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<td>Strategy must have dynamism to be able to have flexibility to change when needed, that is, strategy must be able to undergo periodic reviews.</td>
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<td>In terms of the step by step strategy formulation process. We start by reviewing the current strategy, that is, the strategy as set out in the previous year and assess whether that strategy is still relevant and in line with the new mandate.</td>
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<td>We also gauge how much of what we set out to achieve was actually achieved.</td>
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<td>We then look at how the new mandate is different and what aspects of the current strategy need to change and only concentrate on the areas that need review.</td>
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<td>Our strategy is reviewed quarterly to ensure that we pick up deviations earlier on.</td>
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<td>8.</td>
<td>Like the CEO, the Company Secretary was asked a question on how the board is engaged in terms of strategy formulation and answered as follows:</td>
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<td>9.</td>
<td>Currently the PetroSA follows a bottom up strategy formulation process.</td>
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<td>Divisions formulate their individual strategies/objectives. These are then incorporated into the corporate strategy and approved by EXCO.</td>
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<td>The consolidated corporate strategy is then submitted to the board to check if it is aligned with the shareholder mandate.</td>
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<td>Once board input and approval has been obtained</td>
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the strategy is communicated to lower levels in the organization for implementation.

- Our strategy currently does not seem to take into account external environmental scanning or at least EXCO does not debate environmental scanning as they go through the strategy formulation process, I know this because I sit in EXCO, this imply that in formulating our strategy we don’t always take into account what is happening out there, for example the political changes that are currently happening in the country following the formation of COPE, although I must submit we did take into account the current global financial crisis.

- So what is missing for me is that there is not enough benchmarking with enough evidence. For example do we know what other NOCs are doing?

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<th>Senior Management</th>
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<td>10. I don’t think that the process followed now is as inclusive as it was prior VISION 2020, where heads of departments would go away with the VP to formulate strategy from scratch.</td>
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<td>- I must admit thought that the current strategy is much more focused and clear as to where we are headed as an organization.</td>
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<tr>
<td>- Line management are not taking the time to explain the strategy to lower level workers and use the balanced score card as a tick box which has no meaning to the people on the ground.</td>
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<p>| 11. It starts by looking at the previous year’s strategy document and checking how divisions have done in terms of the objectives they set themselves. |
| - My view is that strategy should be top down. |
| - I think that the strategy formulation has not yet |</p>
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| 12. | I think it’s all over the place and I don’t think that there is a cohesive effort that has been made to put everybody together and really come up with the strategy together.  
|   | So people are doing things in silos, midstream are doing one thing, operations another and communications something else. The strategy is quite disjointed.  
|   | Given that we are going on a phase where we are marketing ourselves internationally as a big NOC that is doing things all over the world not just in the continent or the country. We really need a cohesive strategy formulation process that takes all the people into consideration in their respective areas.  
|   | What is currently happening is quite different to what we experienced when I first came here 2 years ago.  
|   | Back then the CEO took the entire senior management and the executive committee out and took them through the organizational objectives and vision. |
| 13. | One thing that strikes me is the fact that the budget process follows the strategy formulation process when I would think that strategy formulation should actually be informed by the available budget.  
|   | In essence the two processes should actually be run as one process so that the other informs the other right there and then. |
| 14. | • We do it following the processes thought in the MBA programs for example, we look at where we want to be and set up a strategy map on how to get there.  
• Divisions set objectives inline with the corporate objectives that derive from the shareholder mandate.  
• Sometimes divisions deviate from the corporate objectives but the corporate strategy and planning department endeavours through facilitation to ensure of divisional objectives to the corporate objectives.  
• Our strategy formulation is not formalised enough though and the bulk of the PetroSA employees do not necessarily know what the strategy is.  
• So the big question that we’ve got now is to try to get everybody aware of how they are contributing into that strategy. |
| 15. | • For me it’s the case of you have those objectives set by the shareholder, the government.  
• As the company then ask the question what does the shareholder want from me, and make that your objectives.  
• Those objectives then get fed to the organization at large.  
• Each division within the business try and answer the question in terms of how that division is going to contribute to those objectives.  
• So you may have the objective of 25% of the liquid fuel market share and let’s say we were within the Operations division as such.  
• So the Operations division would say what does that mean to us given that our refinery capacity contributes 7% to the national fuels pool and... |
how are we going to get to the 25% market share.

- For example in the main another division has the responsibility of building a new refinery that is the midstream division but how can we contribute to that as the operations division.

- Well they are going to need people and they are going to need resources, and they are going to pull from us. So we need a resource plan to assist project Mthombo to deliver the 25%, so we would then say ok, well one of the things we need as Operations is to grow our manpower and they may include some work being required from HC in terms of training, development plans, recruitment but then also we need to back to ourselves and say ok, which positions are we going to need in order to assist with HC market plan for the project as such and that becomes an objective for us, right.

- The main objective might not be the right word because the objectives is 25% then we move from that to say, what is our key performance indicators but it’s a level above key performance indicators so you have the initiatives lets call it initiatives that is going to address the objectives. So the initiative would be HC market plan to grow your employee base by a 1000, in these critical key areas for example process engineers, reservoir engineers etc.

- Then that initiative would then have a KPI, for example the KPI would be to say in June we must have additional 250 people, you know, to the level where things becomes actionable.

- Ideally the process within the division start off by looking at the previous year’s strategy and assess how the division has done in terms of meeting the objectives as set out there.

- Then we would have a MANCO meeting of level 3 managers as well as other senior managers, It’s
not just level 3 Managers and MANCO other level 4 managers that can contribute are invited as well

- When we go back and sit and we say these are the objectives and these are the project so what are we going to do immediately, next year? What projects run for more than a year and what projects will start not this year but next year in order to meet those deadlines, so those will be identified but what you would find is that the key focus is one year? The 2-3 or the 4-5 is less of a concern but is always a back burner, what you do this year is partly so that you are ready to deliver a five year project or a three year project, as such.

- In as much as you need a resource plan you not going to do that in one year it’s going to stretch across a number of years. But the focus ideally is in on the one year, what you had to do next year in order to keep on delivering and achieving a longer term objective.

- But that always is slightly ahead of the budgeting process again, because you find that eventually your strategy has to roll out into a random scene budget approval.

- The way we run the process here is that the strategy and the budget I would not say it is confused, it’s two separate process but they run one after the other in the system. Because round about August, beginning October people start talking that the budget has to be ready by end September. The EXCO needs to approve the budget and the Board needs to approve the budget by January next year.

- The strategy sessions have to take place before you start thinking about budgeting. Maybe to a less extent in Operations because you have your volumes and all of that. But have full running projects or you may want to kick-off projects
that were not there last year. So you do have your strategy sessions pre-empting your budgeting cycle, as such.
- So you have those discussions first because you have to say what are we going to do, are there key things and how does that impact?
- But there is a very loose relationship currently in our strategy formulation process and budgeting.

| 16. | The strategy formulation process starts in Aug/Sep every year in preparation of the following year.  
|     | What we do is to basically design a process (template) that informs the divisional strategy formulation sessions to ensure alignment to the corporate strategy.  
|     | Once all divisional objectives have been set these are approved by EXCO before going for board approval.  
|     | The divisions start with the work prior coming to the strategy sessions, they on their own try to understand what is expected of them in support of the corporate objectives.  
|     | They go through this process so that their thinking is ready by the time they come to the strategy sessions, so that the strategy sessions as facilitated by the corporate strategy and planning department all that needs to be done is to ensure alignment with the corporate assumptions.  
|     | Remember that this is the process and not a once off thing, but much as the process could be working towards a 5 year plan there must be measurable goals along the way. |

| 17. | a. Previously there would be workshops towards the end of the year where level three managers led by a VP would formulate the strategy. |
b. That strategy would then be submitted to EXCO then the board for approval.

c. This year it was different the strategy was launched after having been worked on by a focus group. The launch kick started a process wherein the strategy would be engaged.

d. A global awareness was made with a bang approach, communicating the strategy in ways that reached out to the general populace of PetroSA. There were launches at major PetroSA sites, Cape Town; Mossel Bay and Saldanha.

e. There was communication about it; flyers; pamphlets; email messages, and even strategy suggestion boxes where people could deposit their suggestions and input into the strategy formulation process.

f. The key message was that we want to carry everyone along.

g. So in my view VISION 2020 is a people’s strategy, because people were involved or at least made inputs into the strategy formulation process, even though they were not asked to craft the actual strategy they made inputs to it.

h. Although I still believe that the final product needs to go back to the people for discussion and workshops.

i. For the first time people from within the organization were invited to make presentations to EXCO on factors that needed to be taken into account in formulating the strategy. For example I personally presented on the global economic environment, the domestic economy and the petroleum industry. These factors EXCO took into account as they deliberated on strategy.

j. From the launch, executives engaged the strategy thereafter the board.

18. In particular in recent years the executives set out the strategy, and from that strategy we would
come up with objectives for the GTL refinery.

- We would do this through workshops mostly attended by key personnel at levels 3 & 4.
- The team in the commercial department normally leads that process by coming up with draft objectives for the refinery in line with the corporate objectives.
- For example, one of the objectives deriving from the corporate objectives would be, to increase the profitability of the plant, from this objective we would then interrogate how we could grow the plant’s revenue, that is, how should we go about doing this.
- We would for example decide that to increase our revenue we would need to sell our low sulphur diesel to the local market at a premium.
- We also look at perhaps selling the low sulphur diesel at an even bigger premium to the international market.
- We also look at details such as how to better deal with legislative requirements such as the production of petrol with a much lower benzene content (1% benzene) and 25% aromatics content.
- We also look at where we can reduce cost of the plant then in the workshop we present all the draft documents as discussion documents. The workshop then look at ways on how these objectives can be realized.
- What we have done in the couple of years we develop a value drive model and that model is basically based on the Du Pont method of financial analysis, translated into how much of each of our product slates we produce at a particular point in time.
- To assess how volumes of each product we could produce in line with the revenue maximization
| 102. | plan, we look at plant availability, feedstock availability etc. |
|---------------------------------------------|
| • At the basic level we also look at what are the factors that can contribute to us not realising the volume and then put a step plan that we will do to monitor those factors and we look at steps that we can put in place to ensure that we stay within our targets. |
| • For example in 2004 we hired an overseas company to assist us with a project that looked at the entire site (Refinery Optimization Project) In terms of how we could optimize the plant and increase our revenues. |
| • The project generated about 50 ideas related to plant optimization, including maintenance schedules etc and how much spares and inventories we should keep in support of that. |
| • We then came up with a risk matrix which for example for the maintenance people outlined the decision making process to be followed in the event of an equipment breakage like a pump for example, rating breakages as being urgent, not so urgent etc depending on how the production process would be affected by the absence of that piece of equipment. |
| • We went as far as using colour coding to denoting the relative importance for example if a piece of equipment need to be in service at all times otherwise it immediately impact the bottom line, then we tagged that red. If an equipment was not so critical we would tag it green etc. |

| 19. | The strategy formulation comprises of Strategy and Planning at Corporate level where vision, mission, objectives and governance guidelines are derived followed by divisional strategies that consists of competitiveness, target settings, |

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business plans and budgets.

- These are complemented by the shared services or functional strategies intended to give direction on human capital, finance, corporate services, IT and legal, SHEQ and BEE.

- Lastly, the departmental strategies that are intended to derive operational excellence, business plans and budgets seal the strategy formulation at PetroSA.

- The PetroSA strategy formulation process is determining where the company is now, determining where it wants to go, and then determining how to get there.

- These three questions are the essence of strategic planning conjoining SWOT, Balance scorecard, looking across at other ways and means that can improve productivity, sustenance and growth.

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<tr>
<td>• To be honest I don’t have knowledge on how strategy is formulated at PetroSA, I’m not involved in strategy formulation.</td>
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<td>21.</td>
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<tr>
<td>• PetroSA set objectives, and possible intervention means, benchmark the means to intervene.</td>
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<td>22.</td>
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<tr>
<td>• To be honest with you even though my role requires that I be involved in strategy formulation I have not been exposed to strategy formulation except for this year where by special invite I got involved.</td>
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<td>• My understanding thus is that the strategy division is the custodian of the strategy process.</td>
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<tr>
<td>• What they do is meet with respective divisions across the business to find out their objectives for the given financial year and then they source out different divisional strategies put them together to form the corporate strategy.</td>
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For example, at one stage it was said that the downstream operation was basically dead in the water and not important, and that the focus and future of PetroSA was upstream. A few years later we were being told the exact opposite!

I must admit that the most recent strategy has been more reasonable, or maybe it is just because it seems to include all the previous ones! i.e., refining, storage, GTL technology and upstream, albeit at different priorities.

To be brutally honest, I have no idea how PetroSA’s strategy is formulated.

What I do know is that we now have a new VP: Corporate Strategy, who has a few employees reporting to him so I would assume that this department is responsible for formulating PetroSA’s strategy. Just how exactly they go about it, I do not know.

I can’t as I do not know the formulation but can assume it is part of DME strategy and top management.

The process is based on annual strategy sessions by divisions within PetroSA and followed by executives and PetroSA Board.

Not very conversant with strategy formulation at PetroSA.

Strategy suggestion box, VP: strategy. I assume these are used. The actual process I do not know.

I don’t have any idea because this is more or less management tool and as I was saying earlier there is no employees’ stakeholder involvement in this whole formulation process.
| 32. | • I’m not really involved in that process, although I have heard in corridors how the strategy is formulated.  
• Being the curious person that I am I kind of have an idea that it starts with strategy formulation workshops at head office spearheaded by the CEO, taking into account the shareholder mandate.  
• These workshops unpack the shareholder mandate and come up with means of how these objectives could be achieved.  
• From this process a draft strategy document result which is shared with the board.  
• The board then satisfy themselves with whether these objectives are aligned with the shareholder mandate, once satisfied the board approves.  
• The resulting strategy is then shared with the DME so as to keep them abreast with how for example the organization plans to meet the security of supply mandate of the DME.  
• This entire process is led by the Corporate Planning and Strategy Department.  
• Bear in mind this is my corridor understanding of the strategy formulation process. |
| 33. | • I don’t know how strategy is formulated, all I can say is that the organization is trying to come up with effective strategies, but they are not succeeding. |
| 34. | • The PetroSA strategy formulation process starts more often at the top with very little input accepted from the bottom. This is largely due to the fact that the consultants are trusted more than home grown. |

**Operations personnel**
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| 35. | More like an emergency situation where we sit with the plant and we have no feedstock and we need to run around looking for feedstock.  
- There’s also the planned crude refinery project in Coega  
- At this stage we are fairly on track the only obstacle I foresee is manpower, we don’t seem to develop manpower fast enough. |
| 36. | Not sure |
| 37. | Don’t get much information regarding strategy formulation from management. |
| 38. | Don’t know how strategy is formulated although I have tried without success to enquire about that process. There seems to be inconsistent understanding as to that process even from line management. |
| 39. | Don’t know how strategy is formulated. |
| 40. | Don’t know how strategy is formulated. |
| 41. | Don’t really know how strategy is formulated. |
| 42. | Don’t really know how strategy is formulated. |
| 43. | Don’t really know how strategy is formulated. |
| 44. | I don’t know how strategy is formulated at PetroSA. |
| 45. | I don’t know how strategy is formulated. |