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Excellent Supply Chains in The Oil Industry: Royal Dutch/Shell
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EXECUTIVE SUMMARY

**EXCELLENT SUPPLY CHAINS IN THE OIL INDUSTRY:
ROYAL DUTCH/SHELL**

by

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The framework for this thesis is provided by the Supply Chain 2020 project. The central goal is to establish “which are the pivotal business-processes that enable Shell’s leading position in the oil industry, which make it stand out from its competitors, and which are designed to ensure the company’s future success”?

Much of the modern world’s accumulation of material wealth has been fuelled by cheaply available and abundant energy. A good way to get a better understanding of the oil industry, which provides a large chunk of this energy, is to take a look at the decisions oil companies face along their supply chain. Integrated oil companies, such as Shell, have not been not been operated as integrated supply chains so far. As a consequence, the industry has developed a “silo-mentality” that is supported by the incentive systems in place.

Shell is the third largest of the world’s five “supermajors” with a market capitalization of roughly \$175 billion. As of 2004, Shell had revenues in excess of \$200 billion, employed 119’000 workers and owned some 50’000 gasoline stations all over the world. The company is organized in five main business units, Exploration and Production (EP), Gas and Power, Oil Products, Chemicals, and Other Industry Segments. In its latest strategy review from the end of 2004, Shell calls for more investment in the upstream, which it plans to finance with steady revenue flows from the downstream.

From a supply chain point of view, the upstream has indeed the greatest potential, as supply chain management has been virtually absent from a sphere that is characterized by large scale projects with few processes routines and standardization. Above all a number of technological innovations such as availability of survey data, decision making with regard to exploratory wells and the interpretation of drilling results, and the designing and building of oil platforms have led people to challenge that assumption, as geological and engineering ventures are becoming more scaleable and project management is more standardized. The opportunities for refining are more limited due to the widespread use of software suites from third-party suppliers, which are

commonly available and manage the optimization decisions to be made in that part of the supply chain. There are some opportunities in the downstream, especially in the realm of product differentiation. So far, product differentiation has been driven by regulatory developments. If the oil companies get on top of the differentiation challenge, they should be able to leverage their strong brand names and actually make money from them, as the recent success of differentiated fuels launched by ExxonMobil and Shell indicate.

However, there are more basic issues that threaten the traditional “silo”-approach to SCM. In the upstream, the integrated majors are at a competitive disadvantage compared to the National Oil Companies, both in terms of size of deposits and quality of crude oil. It is only a question of time before the NOCs will translate this potential advantage into a real one and by moving downstream, the disadvantage of the majors might not remain limited to the upstream only. On the other side of the supply chain, retailers are moving into the gasoline business, leveraging both their management experience as well as their large customer basis with increasing success. Eventually therefore, major oil companies will have to justify their existence by creating value from what they are: integrated companies that have superb knowledge and management skill to manage the vertical value chain as an integrated entity. It is only from the synergies of the integrative approach from which the majors can gain a true and sustainable competitive advantage.

The key drivers in such a move are demand management, improved communications, and the quality and timeliness of information. On the cost side, they are crude allocation, feedstock and blend component transfer between refineries, better transportation scheduling, and warehouse and distribution management. In order to make a difference, these drivers will have to be part of an all-encompassing strategy so that their sum outperforms their individual contributions. Complementary to these supply chain-specific drivers, special attention has to be given to business processes, people, and technology. If applied successfully, a number of benefits and opportunities, such as increased revenue through cross-channel coordination or optimal pricing strategies, multiple order fulfillment, improved customer experience through standardized product catalogue, better inventory management, a more optimal product

mix management, improved collaboration with suppliers and design partners, proactive monitoring of the status of shipments and intelligent exceptions management, a higher degree of planned versus unplanned activity, global work processes, a global set of planning tools, interchangeability of personnel, reduced design cycle time, reduced overall lead-times, reduction in transportation cost, manpower, fixed and working capital, and inventory levels of raw materials and finished products, can be reached. In addition, alliances will continue to play an increasingly significant role to ensure the access to supply as will the importance of brands.

Shell is very well positioned to successfully manage many of these challenges. While it is focussing its effort in the upstream by changing to an operating model that is based on regional hubs, efforts are under way to broaden the crude portfolio, shed non-strategic and underperforming assets, and focus on select profitable markets and businesses. Downstream, Shell has a strong retail position to build on with some 50'000 service stations world wide. The company is simplifying organisational structures and becoming more focussed in order to cut its cost base and become more responsive. At the same time, Shell is streamlining and developing its portfolio of products, customers and assets.

Managing such a complex global network requires implementation capabilities, which in turn depend on functioning organizational structures and highly trained employees. Shell is working to deploy the talent of its diverse workforce even more efficiently. It is aligning employees' incentives better with corporate goals and enhancing personal accountability at all levels. In order to retain the talent at hand and attract new one, Shell is actively developing its second key enabler, the Shell brand. As a consequence, Shell is pursuing a single-brand strategy, in contrast to other majors. Using explicit benchmarking, efforts are under way to standardize systems and processes and to increase throughput and asset utilization.