MAY 2018

Monthly Sustainability Newsletter

SUSTAINABLE SUPPLY CHAINS

Chairman's Message

Dear members, partners and friends,

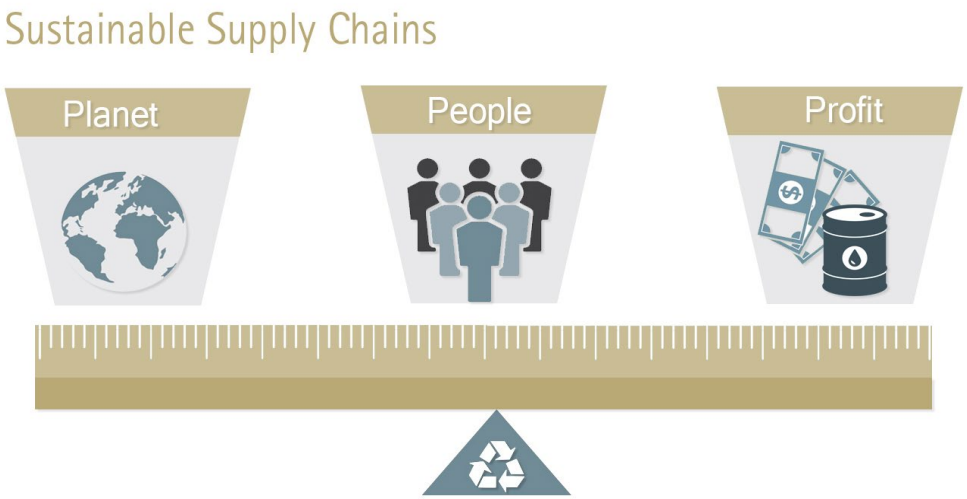
Increasing climate change and environmental concerns around the world have led to the initiation of a multitude of environmental rules and regulations for the general population. In addition, consumers have pressured industry to commence and implement environmentally benign practices. Organizations are becoming increasingly aware of the importance of creating an environmentally friendly system in order to gain competitive advantage, reduce costs and to aid environmental sustainability. This new direction is also observed in supply chains where sustainable supply chain management is becoming an integral focus for overall operations. Sustainable supply chain management is a necessary business challenge that organisations have to address to remain relevant and corporately responsible in today's highly competitive environment. In this month's issue of the Al-Attiyah Foundation Monthly Sustainability Newsletter, we will explore how sustainability is increasingly being integrated into the supply chain processes.

A Sustainable Supply Chain

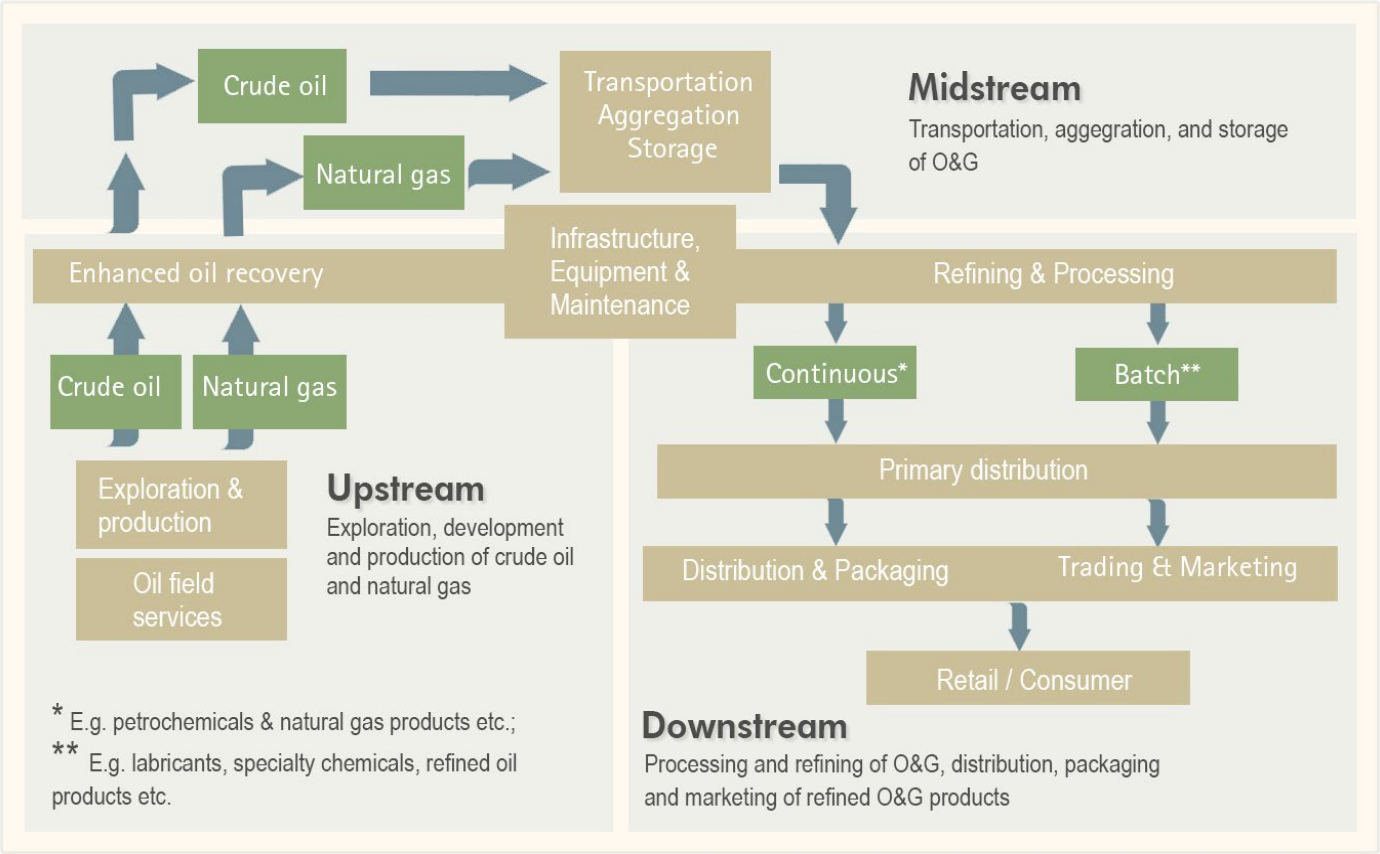
For business, fully understanding the supply chain is essential. Supply chain management can be defined as the active chain that seeks to maximize customer satisfaction and to create a maintainable competitive advantage. Its main goal is to increase the effectiveness and efficiency of the whole organization. Supply chain activities cover the whole process from the product maturity phase, sourcing, logistics and the flow of information. It also includes the transportation and storage of materials.

Sustainable Supply Chain Management in the Oil and Gas Industry

The energy industry consists of various companies with different positions in terms of access to resources, technology, consumer markets, capital availability and expertise. They can be categorized into operators (energy companies), main contractors, sub-contractors and suppliers. Although the industry is often perceived as a single industry, it actually comprises companies from diverse backgrounds



Transportation Aggregation Storage



that represent various industrial cultures and areas of expertise. Its supply chain can also be influenced by many internal (business-related) and external (political/ economic) forces.

The supply chain of oil and gas is illustrated diagrammatically above. In functional terms, the supply chain includes two main categories: the upstream element, widely known as Exploration and Production (E&P), is involved in fnding and producing crude oil and natural gas. Whereas the Downstream businesses focus on producing and marketing the various refined petroleum, gas and petrochemical products for public and corporate consumers.

Sustainable Practices in Upstream

The decisions made during the E&P stage may include the design and planning of an oil or gas field infrastructure. Many factors must be taken into consideration at this stage, such as the deployment of new or newly adapted E&P technologies, environmental laws and regulations which often vary between countries, as well as any local socio-economic challenges. Sustainable Supply Chain management and the consideration of the decommissioning phase is extremely important at this stage. The E&P facilities will be decommissioned at the end of their commercial life, which can be about 20 to 40 years. The decommissioning process involves building and equipment removal, site restoration, implementation of site re-vegetation measures and continued monitoring after closure. With the correct planning, many of these facilities can be decommission in such a way that the equipment can be salvaged and reused in the next oil field. Also, a well-managed sustainable supply chain will result in a smooth and cost effective decommissioning process.

Sustainable Practices in Downstream

The downstream business of oil and gas involves business areas such as crude procurement, supply planning, logistics scheduling, and storage scheduling. Production planning generally focuses on the individual product's production level and refinery operating condition, while transportation focuses on scheduling and inventory management. In refinery operations, the decision-making process may be divided among various departments with conflicting objectives, which may negatively affect performance. Precise sustainable supply chain management should help to align these operations requiring simultaneous consideration.

Supplier Management

The oil and gas supply chain is dispersed globally, meaning one company might have to deal with varying regulatory requirements and stakeholder expectations. The need for externally focused process capabilities in the supply chain is far greater under such conditions. Companies must be able to adapt their supplier management process and practices so as to effectively respond to the changes in their environment.

Logistics Management

Logistics play a significant role in the transition to a low carbon economy, especially because the transport sector is one of the main contributors of GHG emissions. It is imperative therefore that companies adjust to the changes in their environment due to tighter regulations for emissions reduction. In these cases, 'green logistics' practices are expected to be more prevalent. Among the external forces, regulation requirements could be the main driver of the greening of logistics.

Drivers of Supply Chain Sustainability

There are some key drivers that are pushing sustainability into supply chains. Customers, government, media, investors, and suppliers are increasingly applying pressure on organizations to add green supply chain processes into their systems.

Internal Drivers:

Internal drivers include the cooperation the business has with suppliers to source environmentally friendly materials and equipment. Cost reduction is a major internal motivator for sustainable supply chain management. Incorporating sustainability into the supply chain processes is an opportunity for an organization to shrink their budgets. Quality enhancement is also an aspect that every organization wishes for. Using the sustainable supply chain approach, an increase in quality is also possible with the reduction in wastes and pollution.

External Drivers:

In addition to the internal pressures that lead to the integration of sustainability into the supply chain processes, some external factors have a significant role such as Government regulations, customer requirements, competitors, suppliers, society and international standards.

Customers

Customers are the most important aspect in any organization. Customers can easily serve as an external pressure for organisations to improve their management practices. Studies have shown that customers can pressure up to 43% of the external factors that are influencing the incorporation of green activities into supply chain practices.

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Competitors

Many researchers agree on the concept that competition can be a direct driver for the integration of sustainability into the supply chain processes. To become more alert to the customer's needs, companies must achieve a competitive advantage for themselves. Many organisations now use the integration of sustainability in supply chain activities to improve competitiveness among rivals.

Regulations

Government regulations are one of the major drivers for companies to adopt greener practices. But incentives too can drive change. Some countries encourage trade by offering tax reductions to organisations adopting sustainable processes.

Link Between ISO Certification and Sustainable Supply Chains

Many studies have evaluated the link between the ISO 14001 certification and the adoption of green supply chain practices. One recent study demonstrated a positive link with ISO 14001 and the promotion of sustainable supply chain practices. The study found that Facilities with environmental management systems (EMS) certified to ISO 14001 are 40% more likely to assess their suppliers' environmental performance and 50% more likely to require that their suppliers undertake specific environmental practices. ISO 14001 certified companies are more likely to adopt the green practices in supply chain activities, since these organisations are increasingly concerned with their environmental performance.

Obstacles for Sustainable Supply Chain

In addition to the drivers of sustainable supply chain, there are some obstacles to the integration of eco-friendly systems to supply chain processes. However, there are few studies that have looked at the obstacles compared to the number of studies that explored the major drivers. It is worth noting that some drivers, such as regulations, could also pose major limitations for sustainable supply chains.

Internal Obstacles:

Costs

Many studies have revealed that integrating sustainability into the supply chain processes can be costly. Balancing this with the constant demand from customers for lower prices can be difficult. One such study claimed that many enterprises considered initial cost increases as the major obstacle for implementing sustainable supply chain activities. However, the same report also found that around 52% of these companies were aware of the economic benefits that would result from applying environmentally friendly activities.

External Drivers:
Poor Supplier Commitment

In order to achieve a sustainable supply chain, every company along the chain has to commit to sustainable practices. Poor commitment by suppliers will leave a big gap in the design and implementation of a successful sustainable supply chain system.

Lack of Customer awareness of sustainable green products

In some industries, lack of customer awareness regarding green supply chain approach is a major obstacle that can slow down implementation. When customers have poor awareness of green products, there is less incentive for manufacturers/producers to employ innovative technologies required. An estimated 75% of consumers claim that their purchases are influenced by reputation and 80% would be willing to pay more for environment friendly products.

Integrating sustainable practices into supply chain systems is a business necessity and a growing challenge. However, when taken seriously, companies and industries are reaping the long-term social, economic and environmental benefits.

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References:

https://www.sciencedirect.com

https://www.shell.com

https://www.bp.com

https://www.total.com

https://www.statoil.com

https://www.eni.com

https://www.bloomberg.com