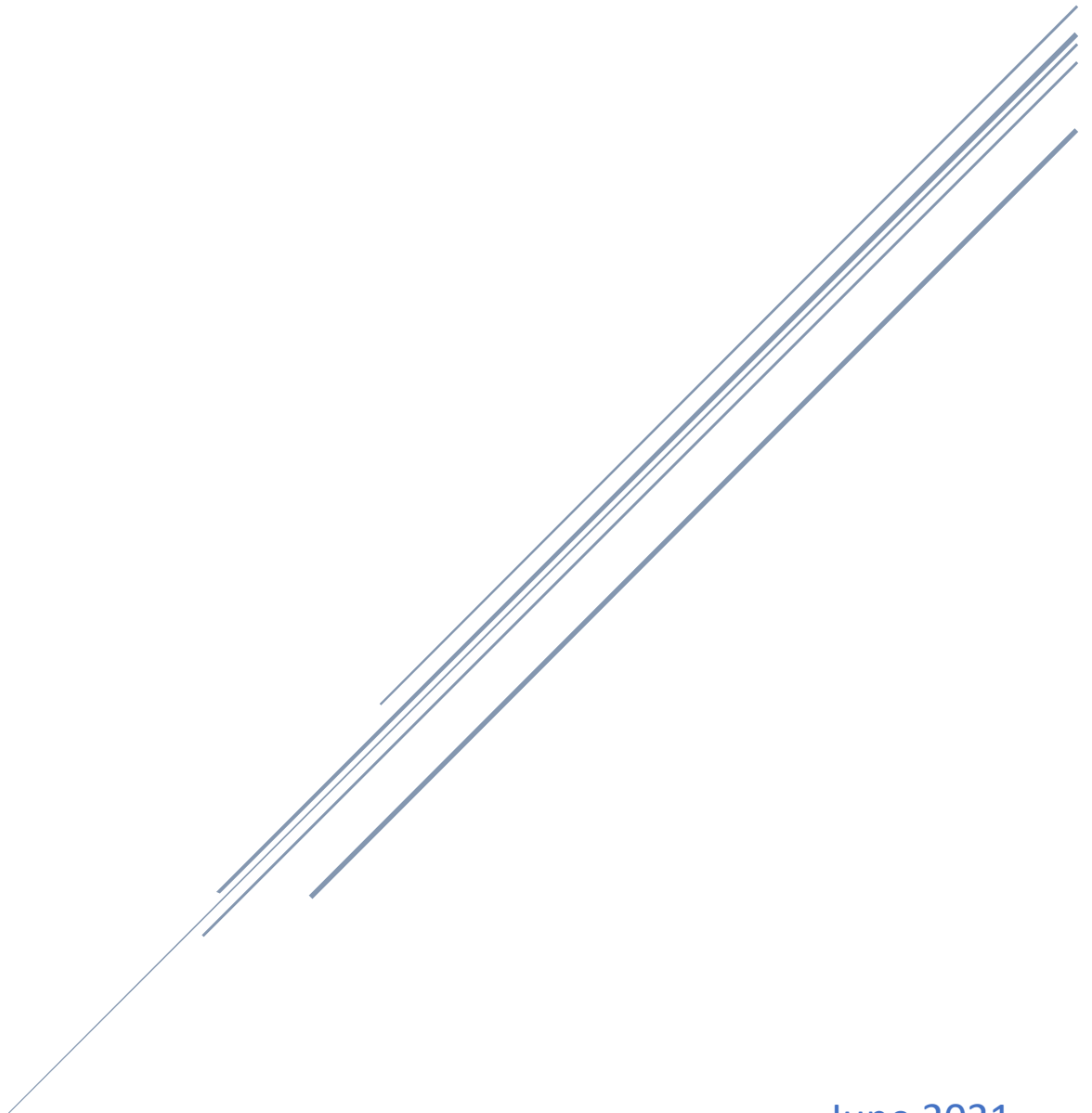


# OIL & GAS INDUSTRY

Challenges, trends, and the role of Supply Chain Finance (SCF)



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## Abstract

According to PWC, the current economic climate is compelling companies to manage liquidity better and strengthen their balance sheet and this has increased the challenge for businesses to remain financially sustainable.

**Supply Chain Finance (SCF)** can be a solution for companies looking at improving their working capital and cash flow position.

### SCF for oil and gas industry.

The model is not new and there is a widespread interest in its use by oil and non-oil industries alike.

Oildex ([www.oildex.com](http://www.oildex.com))

In 2018 Oildex announced the availability of its Supply Chain Finance Program to the oil & gas industry through their automated payables platform *OpenInvoice*.

*OpenInvoice Supply Chain Finance* is enabled through Cass Information Systems, a long-term strategic partner of Oildex. The program is simple: Cass Information Systems will pay suppliers quickly, less a competitive early pay discount, allowing the operator to maintain or even extend their payment terms to maximize working capital returns. In addition, there is an opportunity for the operator to also receive a financial rebate based on the transactions.

Today, three years after its launch, the program counts with 98,000 registered suppliers, 1,100 oil & gas industrial customers, 2,1 million unique & active owner accounts, and 1.3 million connections.

The SCF for the oil and gas ecosystem allows businesses to seamlessly collaborate across their financial supply chains, automate key business processes, eliminate the high cost and errors of paper, and obtain access to key data to make more informed business decisions.

Pasha Bank of Azerbaijan ([www.pashabank.az/reverse\\_factoring\\_services/lang.en/](http://www.pashabank.az/reverse_factoring_services/lang.en/))

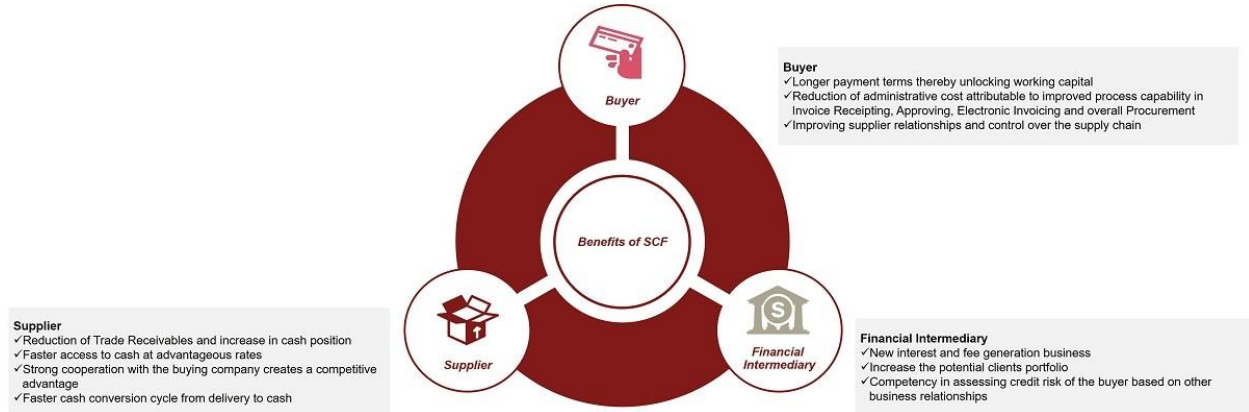
Pasha Bank has been utilizing SCF or Reverse Factoring since 2014 with non-oil and oil companies as well.

### **Pasha Bank's main requirements for SCF services**

- Official contract between Seller (Supplier) and Buyer (Debtor)
- Proof of positive commercial relations between Seller (Supplier) and Buyer (Debtor) for a specific period.
- Act of acceptance for the goods and services between Seller (Supplier) and Buyer (Debtor)
- All invoices and other supporting evidence documents required by agreement should be delivered to the Bank

## Advantages of using SCF

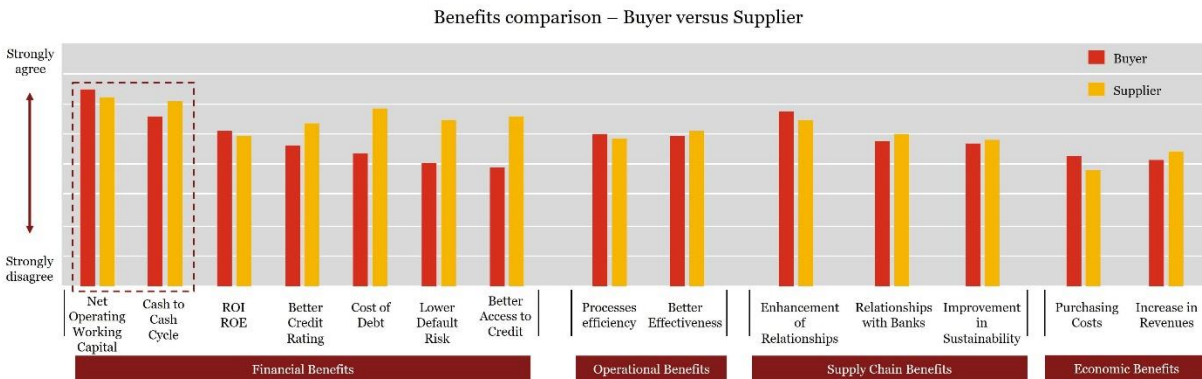
The following diagram indicates the key advantages of using SCF for the parties involved:



## Benefit perception from buyers and suppliers

A PWC’s survey among the supply chain finance community, the SCF BAROMETER 2018/2019, measures and compares what buyers and suppliers consider the most important benefits of using SCF as a business model.

The results are shown in the following graph and includes financial, operational, supply chain, and economic benefits:



Source: SCF Barometer 2018/2019

Working capital optimization was viewed as the most important benefit for both Buyer and Supplier. This was achieved via a reduction in Net Operating Working Capital investment and the shortening of the Cash Conversion Cycle. On top of optimizing working capital, an SCF program also improves the Buyer-Supplier relationship.

The survey indicates that an SCF program should be part of an integrated Procure to Pay (P2P) strategy.

Adopting this approach ensures organizations are equipped with a strong foundation that will help maximize the potential of their working capital.

### Challenges in the oil and gas industry

Primary challenges faced today by the industry include:

**1. Produce more at lower cost and with less emissions.**

The global population is increasing, and energy demand post COVID-19 will not only recover, but also increase. At the same time, the world is demanding cleaner energy so oil and gas companies must supply this energy with less emissions.

**2. Rising capital cost.**

It is estimated that collectively the oil and gas industry must invest nearly US\$500 billion each year to keep up with demand and regulations and the high and rising cost of capital makes this exceedingly difficult.

**3. Achieve and maintain a durable cash flow.**

Many investors have fled the oil and gas sector due mainly to companies outspending their cash flows in the name of growth. That is no longer the case for most companies. Still, investor confidence has not yet returned. Energy companies need to show that they have capital discipline and will consistently return money to their shareholders.

### Trends in the oil and gas industry

**1. Internet of Things (IoT)**

The oil and gas industry utilizes IoT to improve production, optimize equipment, ensure worker safety, and monitor remote areas. Sensors placed inside wells, blowout preventers (BOP), and choke valves enable real-time data collection. Using this data, O&G companies identify faulty equipment quickly, helping field engineers predict and react quickly. IoT solutions allow oil and gas facilities to minimize maintenance costs and gain detailed visibility into their equipment or processes.

**2. Continued use of Artificial Intelligence**

The oil & gas industry increasingly applies AI and data science to solve complex problems in upstream, midstream, and downstream operations. AI-enabled platforms support decision-making with insights from predictive, prescriptive, and cognitive analytics. In this way, AI helps petroleum engineers and oil & gas industry managers discover and implement new exploration & production ideas on the field to increase ROI.

**3. Cut Operational Costs and Reduce Carbon Emissions using Big Data & Analytics**

Everyday operations in the oil & gas industry generate large volumes of unstructured data. Big data platforms help the industry's data analysts draw insights from production and performance data. This is also useful for engineers looking to optimize production and ensure the safety of reservoirs. Further, historical data of previous operations better train and test AI-driven algorithms and models. By using big data analytics, the oil and gas industry derives more value from everyday decisions to reduce operational costs and the industry's carbon emissions.

**4. Go Deeper into Blockchain**

Blockchain is increasingly penetrating various industrial operations including, oil and gas. Smart contracts provide much-needed security and transparency of oil & gas documents and operations. Distributed ledgers verify contractors, employees, and maintain smart contracts. Further, Blockchain allows oil and gas companies to automate invoices, post-trade settlements, supply chain finance,

and joint venture accounting. Blockchain is also useful for hydrocarbon fleet tracking, trading, retail B2C, intragroup billing. This trend is here to stay and will continue to grow in the industry.

#### **5. Reliance on Manufacturing Execution Systems (MES)**

MES integrates manufacturing facilities, operational technologies, such as supervisory control and data acquisition (SCADA), and computing systems, to control the production process. As oil & gas equipment manufacturing processes are complex, engineers seek solutions to monitor and control the continuous operational processes. MES offers intelligent architecture for manufacturing systems with integrated control for the oil and gas industry that ensures faster, safer, and reliable oilfield production systems.

#### **6. Use of Cloud Computing**

Cloud computing can store and processing data on remote servers, freeing up expensive local memory and computing capacities. The oil and gas industry generates enormous amounts of data in its daily activities. Using cloud technology and software applications boosts oil & gas efficiency, security, scalability, and eases digital transformation. Cloud-native tools, such as 'as-a-service' platforms – platform, storage, infrastructure, data, and more – enable advanced analytics, informative visual dashboards, and remotely accessible real-time insights.

### **Why would the oil & gas industry use SCF?**

The benefits described in previous paragraphs should be reason enough to adopt this strategy however not all players in the industry have adopted SCF.

The number of members in the SCF community is growing and it is important to see what drove some companies to abandon their traditional way of managing their processes in favor of adopting SCF.

So, aside from the obvious benefits, some of the main drivers are:

#### **1. Supplier vulnerability.**

The challenge of cost reduction faced by operators/producers have triggered a wave of demands to suppliers to significantly reduce the prices of their services and products. This puts suppliers in a position where they also need to reduce their cash conversion cycle which makes of SCF an extremely attractive option.

#### **2. Tier 2 suppliers going down.**

Tier 1 suppliers (those that sell directly to operators/producers or OEMs) estimate that around 40% of their suppliers (Tier 2 suppliers) either face or will face significant risk of bankruptcy if oil prices go down to \$50 or lower. It makes perfect sense to embark in adopting strategies that can allow all involved to be prepared to meet this challenge. Today, June 2021, the price of oil is a little over \$70 but in 2019 the average closing price of crude oil was \$56.99 and in 2020 it was \$39.68.

#### **3. Collapsing oil prices.**

As oil prices go down oil producers are, as is their normal response, reducing operating and capital expenditures. This has a direct impact on suppliers that are now receiving less requests for services and products impacting their cash flow and risking their very survival as producers are not only buying less but are also requesting price reductions as seen on the previous point.

#### **4. Sourcing risk.**

Many suppliers to the oil and gas industry have gone under in these hard times and many more will shut operations and disappear before things start going back to normal. This poses a very real risk

for producers. Qualified suppliers disappearing represents a high risk for all operations, from exploration to distribution passing through production. It is in the best interest of producers to find solutions to help their suppliers and SCF seems to be the right tool to do just that. Sourcing, the process of searching, evaluating, developing when necessary, and selecting new suppliers is not easy in the oil industry and taking steps to ensure the survival of existing suppliers is of utmost importance. Recent studies show that up to 90% of seismic-service suppliers and 70% of well services companies could go bankrupt if operators do not implement supportive measures.

### Conclusion

All conditions are given for both, operators/producers, and suppliers (tier 1 and 2 at least) to embrace SCF.

Companies fixed on maintaining a more traditional way to operate, keeping the traditional procurement model where operators/producers are only focused on price reduction and on-time delivery have been forced by the pandemic and high variability of oil prices to consider SCF not as a temporary solution and but one to be maintained.

Adopting SCF will put companies in a stronger position to survive and thrive during future economic and trading unbalances.

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