

Supply Market Analysis



Anklesaria Group, Inc.

Del Mar, CA

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Agenda

Day 1

Day 2

1



Introduction

Introduction to Supply Market Analysis

2



Knowledge Requirements

Knowledge requirements for effective Supply Management

3



Module 1

Supply Market Overview
Breakout 1: Each team will complete a supply market overview for its Category

4



Module 2

Evaluation of Major Players
Breakout 2: Each team will evaluate major players for its Category

5



Module 3

Evaluation of Industry Trends & Forces
Breakout 3: Each team will evaluate trends and forces in the supply market

6



Presentation & Critique

Presentation & Critique of Report

Seminar Introduction & Overview



- 1 To develop an in-depth understanding of the supply markets for products/services/capital equipment purchased
- 2 To identify and evaluate key players in the supply market
- 3 To analyze industry trends and forces
- 4 To provide hands-on training in gathering industry information
- 5 To prepare a Supply Market Analysis report to use in sourcing and negotiation
- 6 To enhance the credibility of buyers/commodity managers with the power of knowledge

Prices

It's unwise to pay too much.
But it's worse to pay too little.

When you pay too much you lose a little money,
that is all.

When you pay too little you sometimes lose everything, because the thing you bought
was incapable of doing what it was bought to do.

The common law of business balance prohibits paying a little and getting a lot.
It can't be done.

If you deal with the lowest bidder, it is well to add something for the risk you run.

And if you do that, you will have enough to pay for something better.

There is hardly anything in the world that someone can't make a little worse and sell a
little cheaper -- and people who consider price alone are this man's lawful prey.

John Ruskin
(1819-1900)

Anklesaria's Strategic Sourcing Process

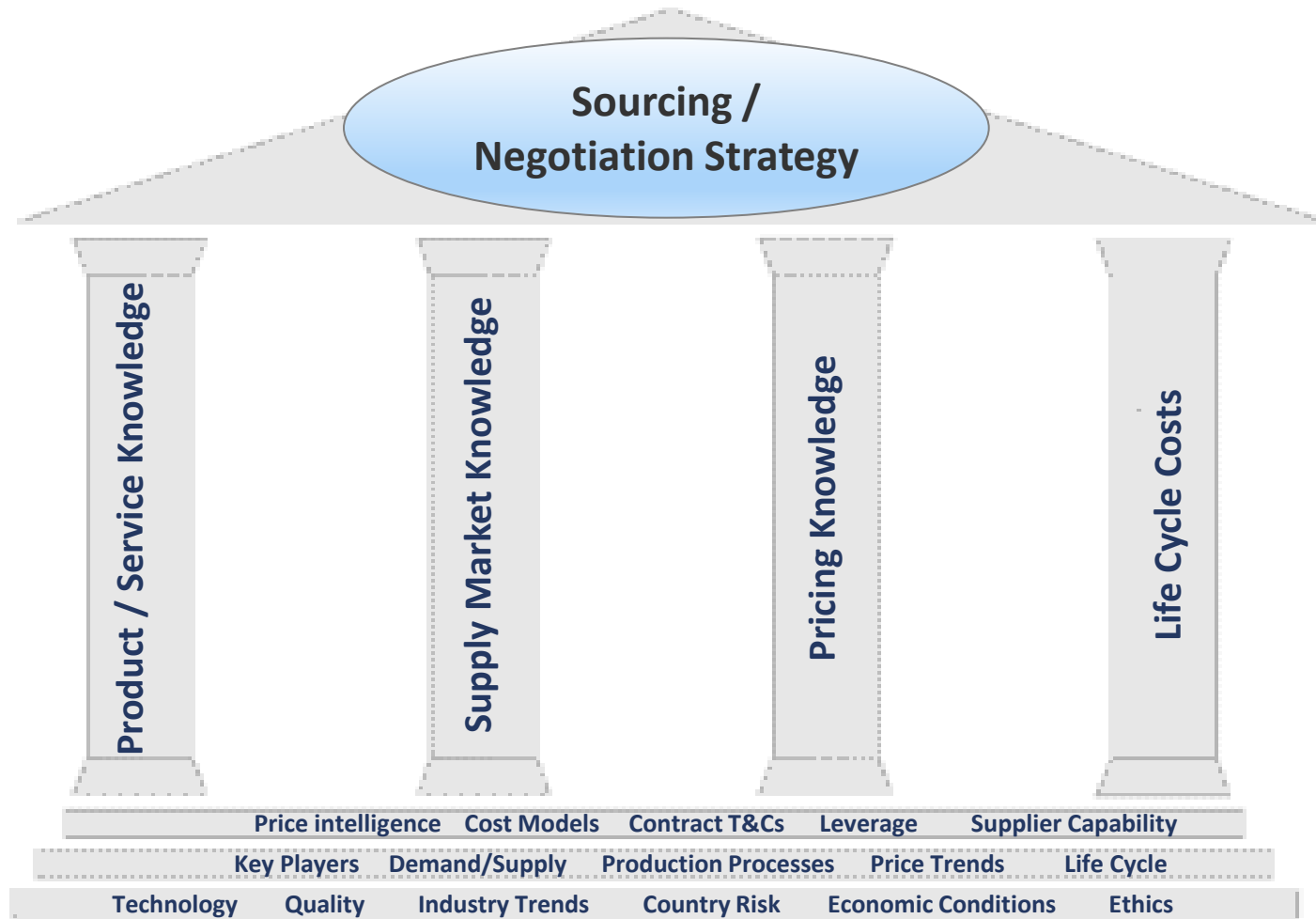
Strategy

Source

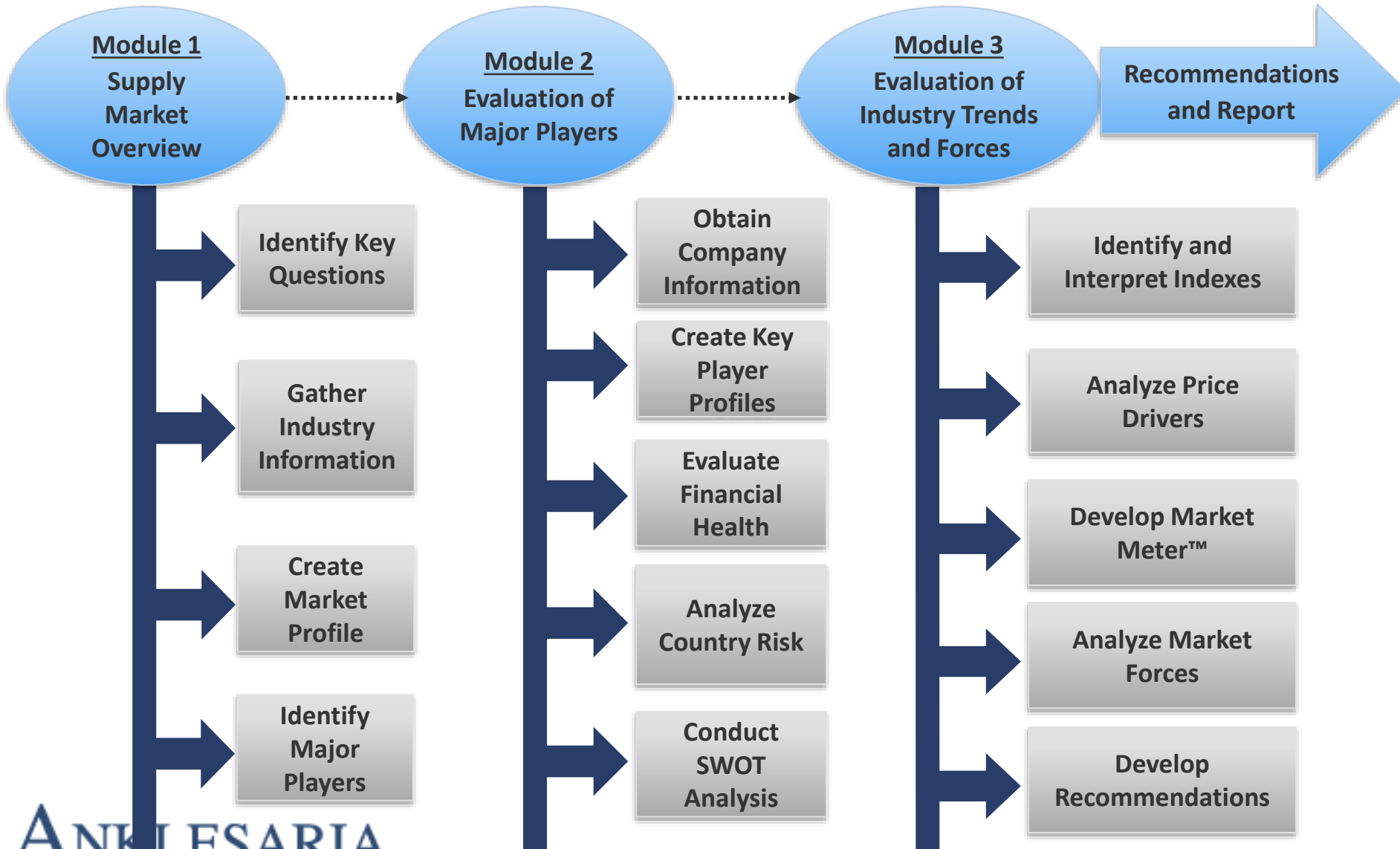
Manage

<ul style="list-style-type: none"> ➤ Assess Internal Needs 	<ul style="list-style-type: none"> ➤ Prepare for Sourcing Event 	<ul style="list-style-type: none"> ➤ Initiate Contract Management
<ul style="list-style-type: none"> ➤ Analyze Supply Market <ul style="list-style-type: none"> • Supply Market Overview • Profile Suppliers • Evaluate Trends and Forces 	<ul style="list-style-type: none"> ➤ Conduct Sourcing Event ➤ Select Supplier(s) Award Contracts 	<ul style="list-style-type: none"> ➤ Manage Contract <ul style="list-style-type: none"> • Supplier Performance (KPIs) • Contract Pricing (Price Discipline™) • Value Improvement Program (AIM & DRIVE®)
<ul style="list-style-type: none"> ➤ Understand Costs <ul style="list-style-type: none"> • Total Cost of Ownership • Should Cost Model • Price Discipline™ Models • AIM & DRIVE® 	<ul style="list-style-type: none"> ➤ Negotiate and Award Contract 	<ul style="list-style-type: none"> ➤ Close Contract
<ul style="list-style-type: none"> ➤ Develop Strategy 		

The Temple of Knowledge



Phases of Supply Market Analysis



1



Introduction

Introduction to Supply
Market Analysis

2



**Knowledge
Requirements**

Knowledge
requirements for
effective Supply
Management

3



Module 1

Supply Market
Overview

4



Module 2

Evaluation of Major
Players

5



Module 3

Evaluation of Industry
Trends & Forces

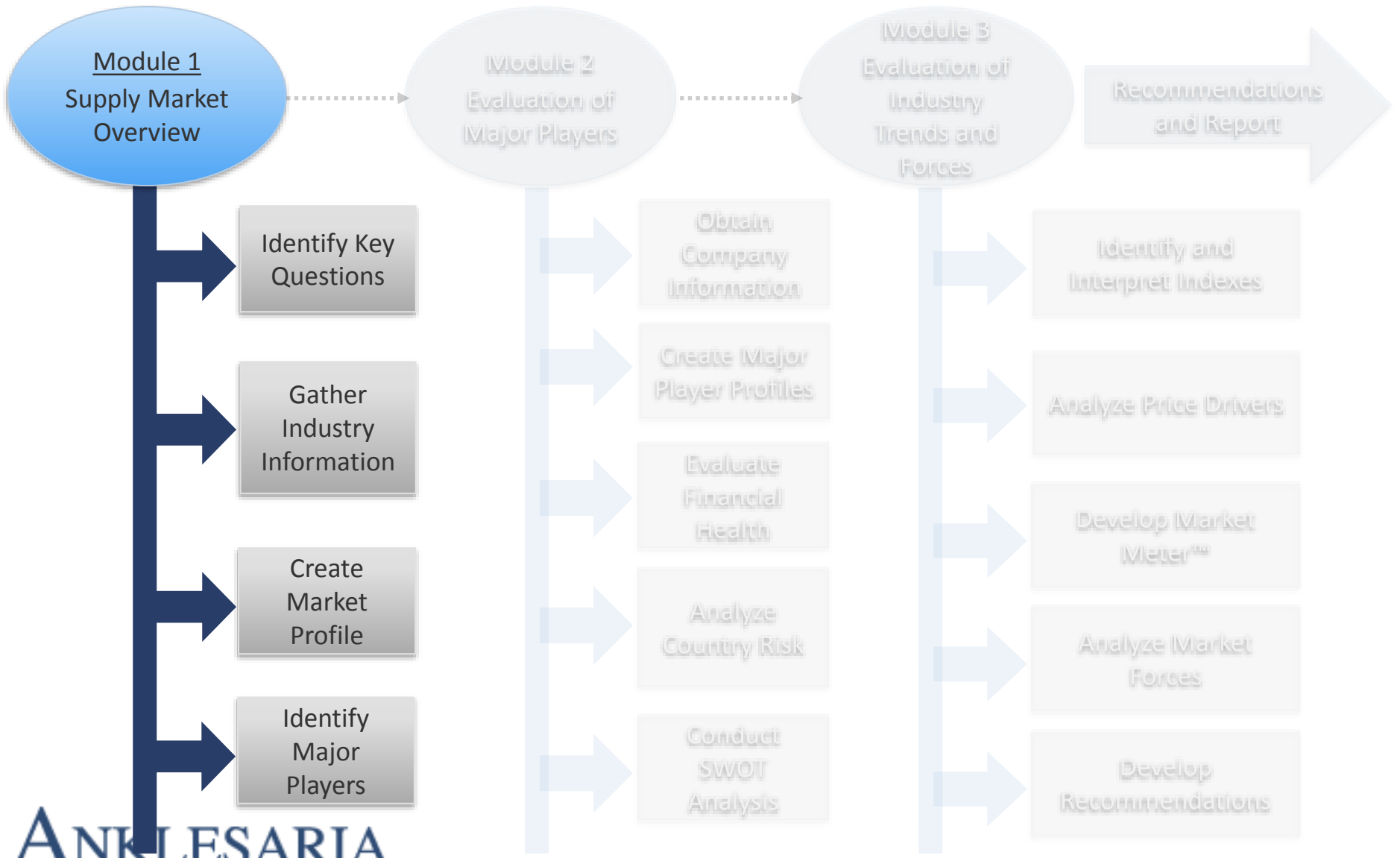
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**Presentation &
Critique**

Presentation & Critique
of Report

Supply Market Overview



Identify key questions



Is your supply market global or regional or both?



What is the size (\$) of the market?



What is the structure of the market?

- Size (\$/ volume) by region/geography
- Key industry sectors served
- Key growth areas (region/industry sector)



Who are the major players in the market?

Information sources to answer the key questions



Trade Associations

- *E.g.: Corrugated.org*
- *World Steel Association*
- *MEPS.co.uk*



Subject Matter Experts (internal and external)



Company Financial Reports and Presentation



Banking/Credit Associations Investment Reports

- *E.g.: Credit Suisse*
- *Morning Star*



Government Publications

- *E.g: Securities and Exchange Commission*
- *Statistical Yearbooks*
- *Eurostat*



Published studies/ reports/ articles

- *E.g: Standard & Poor*
- *IBIS*
- *Datamonitor*

Characteristics of a good supply market profile

Provides a brief yet succinct overview of the supply market

- Size of the market in terms of volume & revenue
- Supplier spread in terms of numbers and market share
- Consumer industries and geographies

Highlights expected growth in volume & revenue in addition to the current and past trends

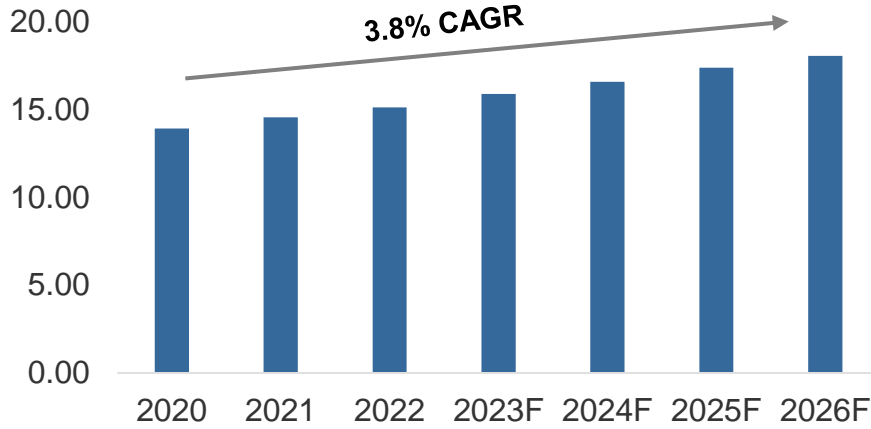
- Forecast of absolute growth figures (volume & revenue)
- Percentage change in growth to highlight volatility in the supply market

Any other information pertinent to the category procuring from the supply market

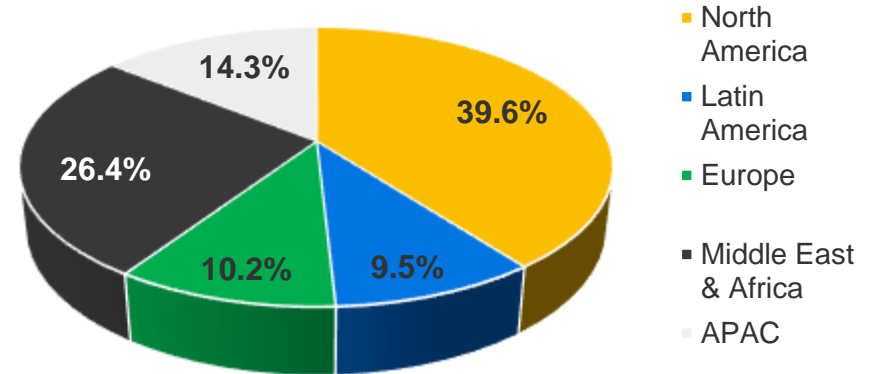
- Government regulations
- Supply market capacity & utilization
- IP/ Technology

Industry market profile example: Downhole Drilling

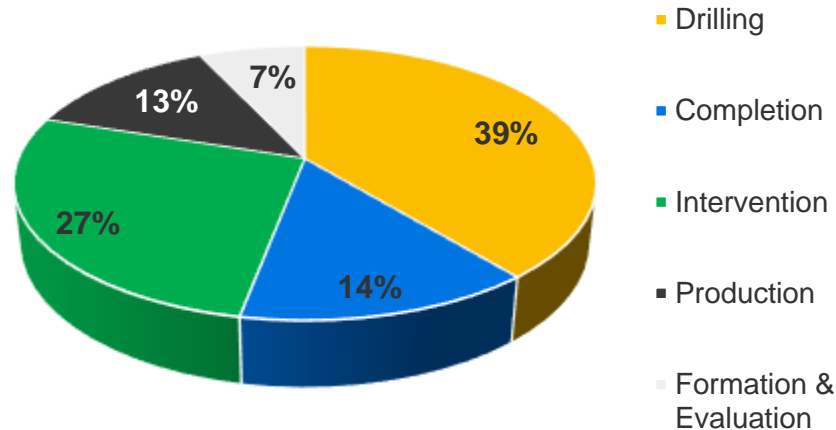
Global Market Size & Forecast (\$ B)



Market Share by Geography



Market Share by Product Type



Reviewing key questions



Is your supply market global or regional or both?



What is the size (\$) of the market?



What is the structure of the market?

- Size (\$/ volume) by region/geography
- Key industry sectors served
- Key growth areas (region/industry sector)

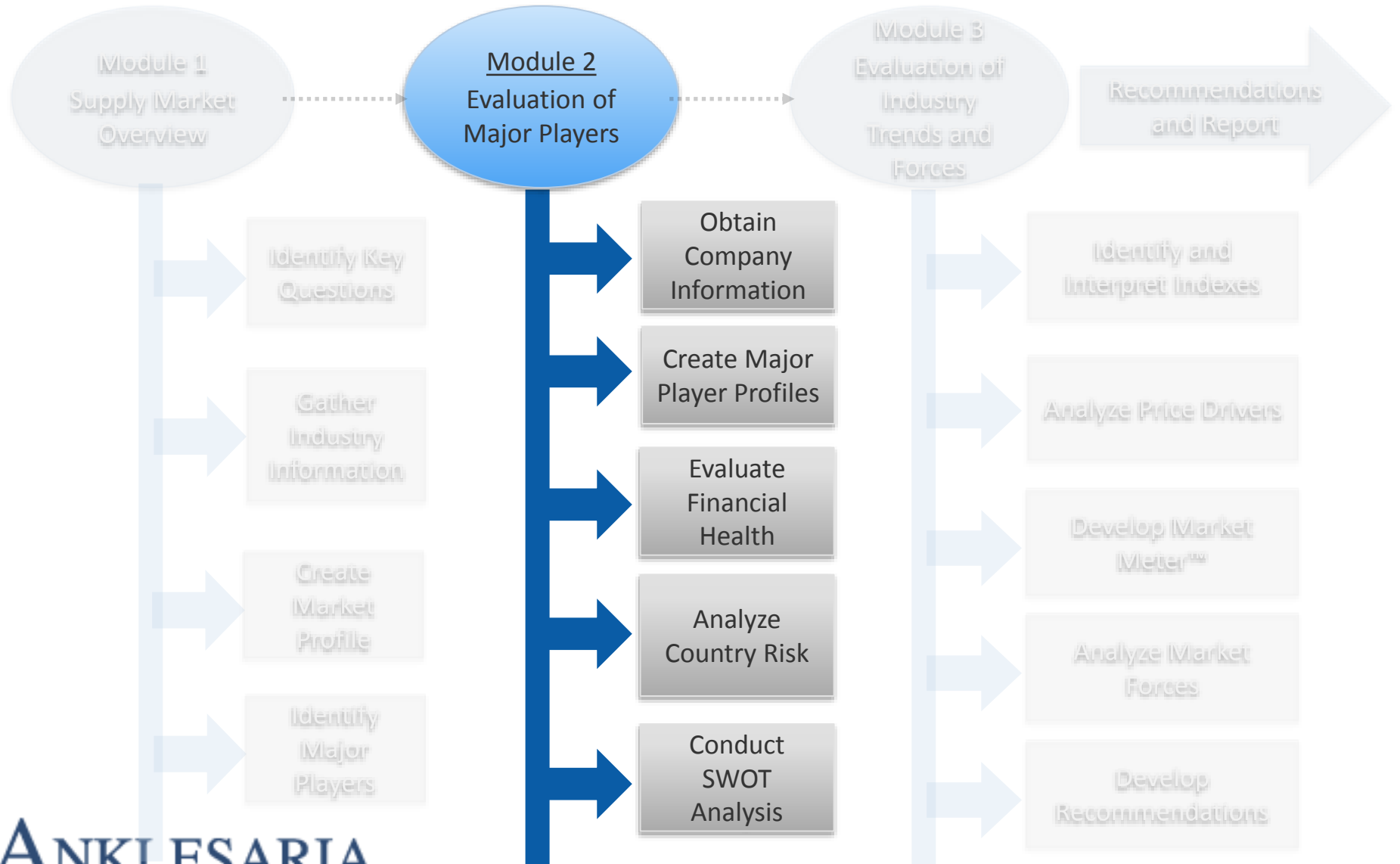


Who are the major players in the market?





Supply Market Overview



Module Objectives



Develop company profiles for major players



Evaluate the financial health of major players

- Cross-sectional analysis
- Trend Analysis

To get an adequate understanding of the dynamics of the supply market, analyze the top 5-10 companies for the last 3 years.

In the case of a highly volatile industry, analyze companies for the last 5-7 years.



Evaluate country risk (This is applicable only if players are in multiple geographies and especially necessary if they are in high risk regions.)



Conduct a SWOT analysis of major players

Example of major players in the Downhole Drilling industry



Revenue: \$8.51 Billion (2021 FY)
Market Cap: \$5.25 Billion (20 Feb 2023)



Revenue: €292.81 Million (2021 FY)
Market Cap: € 1.09 Billion (20 Feb 2023)



Revenue: CAD 349.92 Million (2021 FY)
Market Cap: \$ 373.81 Million (20 Feb 2023)

Key areas to cover when developing players' profiles



Geographic Coverage/
Locations



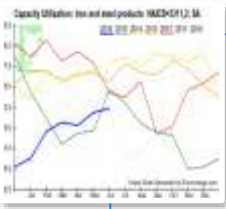
Market Share



Product and Service
Offerings



Stock Performance



Capacity & Utilization



Leadership



Certifications & Policies



Contacts

Sources to obtain Company Information



Company Website



Investor Presentations and Analyst Reports



Company Financial Reports and Presentation



Request for Information



Trade Associations

- *E.g.: Corrugated.org*
- *World Steel Association*
- *MEPS.co.uk*



Business Journals

- *E.g: SEC*
- *Yahoo Finance*
- *Factiva*

Annual Reports

- **Business** – includes a description of:
 - business
 - markets
 - industry conditions and competition
 - major events of the prior year (mergers, acquisitions, technological advancements, etc)
 - risk factors
- **Management’s Discussion and Analysis** covers
 - comparison of each year’s performance with the two prior years
 - some of the details behind financial statements
 - results of individual business segment operations (official record in notes to financial statements)

ITEM 1. BUSINESS

General

NOV Inc. (“NOV” or the “Company”) is a leading independent equipment and technology provider to the global energy industry. Originally founded in 1862, NOV and its predecessor companies have spent 160 years helping transform oil and gas field development and improving its cost-effectiveness, efficiency, safety, and environmental impact. Over the past few decades, the Company has pioneered and refined key technologies to improve the economic viability of frontier resources, including unconventional and deepwater oil and gas. More recently, by applying its deep expertise and technology, the company has helped advance the transition toward sustainable energy.

NOV’s extensive proprietary technology portfolio supports the industry’s full-field drilling, completion, and production needs. With unmatched cross-segment capabilities, scope, and scale, NOV continues to develop and introduce technologies that further enhance the economics and efficiencies of energy production, with a focus on automation, predictive analytics, and condition-based maintenance.

NOV serves major-diversified, national, and independent service companies, contractors, and energy producers in 61 countries, operating under three segments: Wellbore Technologies, Completion & Production Solutions, and Rig Technologies.

Source: NOV Annual Report

Financial Statements

Financial Statements and Supplementary Data

- Income Statement
- Balance Sheet
- Statement of Shareholders' Equity
- Cash Flow Statement
- Notes to financial statements

(all notes to financials statements including business segmentation and geographical segmentation summaries)

NOV INC.
CONSOLIDATED STATEMENTS OF LOSS
(In millions, except per share data)

	Years Ended December 31,		
	2021	2020	2019
Revenue			
Sales	\$ 3,769	\$ 4,409	\$ 5,862
Services	1,114	1,091	1,517
Rental	641	590	1,100
Total	5,524	6,090	8,479
Cost of revenue			
Sales	3,369	4,313	5,696
Services	951	929	1,188
Rental	430	414	750
Total	4,750	5,656	7,634
Gross profit	774	434	845
Selling, general and administrative	908	968	1,303
Goodwill and indefinite-lived intangible asset impairment	—	1,378	3,612
Long-lived asset impairment	—	513	2,209
Operating loss	(134)	(2,425)	(6,279)
Interest and financial costs	(77)	(84)	(100)
Interest income	9	7	20
Equity loss in unconsolidated affiliates	(5)	(260)	(13)
Other income (expense), net	(23)	(17)	(90)
Loss before income taxes	(230)	(2,779)	(6,462)
Provision (benefit) for income taxes	15	(242)	(369)
Net loss	(245)	(2,537)	(6,093)
Net income attributable to noncontrolling interests	5	5	2
Net loss attributable to Company	\$ (250)	\$ (2,542)	\$ (6,095)
Net loss attributable to Company per share:			
Basic	\$ (0.65)	\$ (6.62)	\$ (15.96)
Diluted	\$ (0.65)	\$ (6.62)	\$ (15.96)
Cash dividends per share	\$ 0.05	\$ 0.05	\$ 0.20
Weighted average shares outstanding:			
Basic	386	384	382
Diluted	386	384	382

The accompanying notes are an integral part of these statements.

Source: NOV Annual Report

Exhibits and Financial Statement Schedules

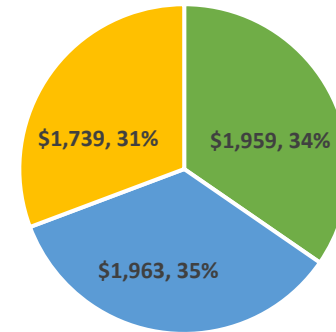
(Sometimes the Financial Statements are grouped together under this item.)

Create company profiles (example: National Oilwell Varco)

General info:

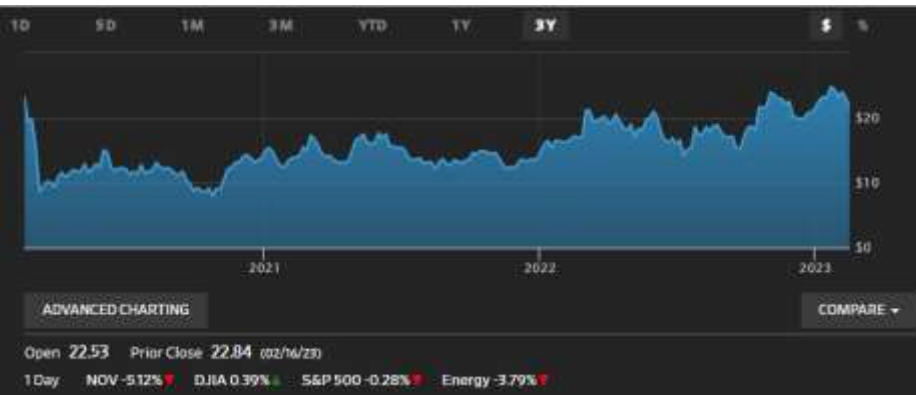
- **Business Segments:**
 - **Wellbore Technologies** – provides the critical technologies, equipment, and services required to maximize customer oil and gas drilling efficiencies and economics.
 - **Completion & Production Solutions** - provides critical technologies to optimize the well completion process and production phase of a well’s lifecycle.
 - **Rig Technologies** - is the global leader in the engineering, manufacturing, and support of advanced drilling equipment packages and related capital equipment for oil and gas wells
 - **Headquarter:** Houston, Texas, USA
- **Leadership:** Clay C Williams, Chairman of Board & CEO

2021 Revenue by Business Segments (\$MM)

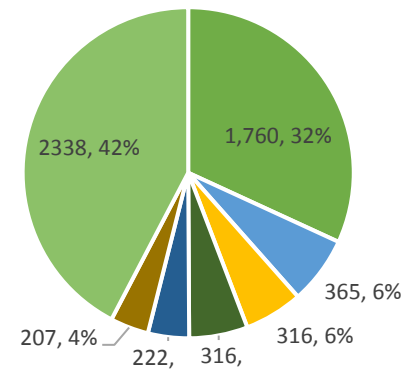


■ Wellbore Technologies ■ Completion & Production Solutions ■ Rig Technologies

Stock Performance



2021 Sales by Region (\$MM)



■ United States ■ Norway ■ Saudi Arabia ■ Brazil ■ China ■ Canada ■ Other Countries

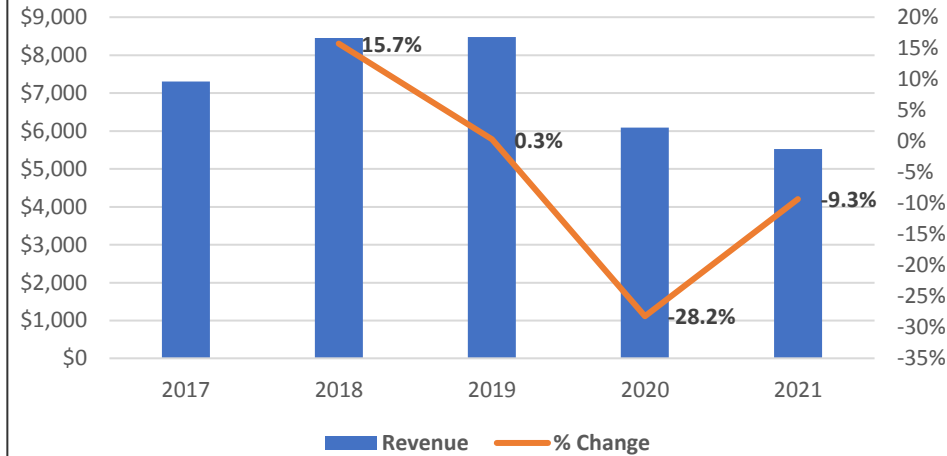
Source: NOV Financials, Wall Street Journal

Major Player Profile Example: National Oilwell Varco

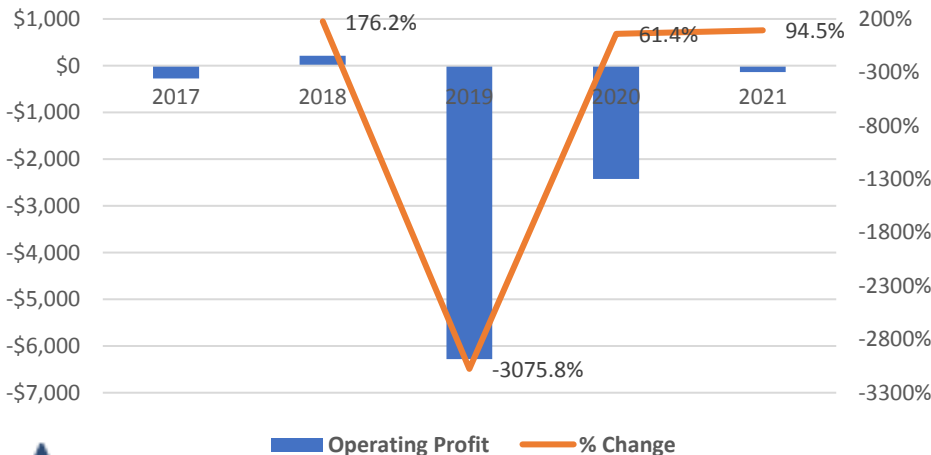
Financial overview (2021 FY)

- **Stock Symbol:** NOV
- **Market Capitalization:** \$8.51 Billion (20 Feb 2023)
- **Revenues:** \$5.25 Billion (2021 FY)
- **Operating Profit/Loss:** **-\$125** Million (2021 FY)
- **Net Profit/Loss:** **-\$250** Million (2021 FY)
- **Net Operating Cash Flow:** \$291 Million (2021 FY)

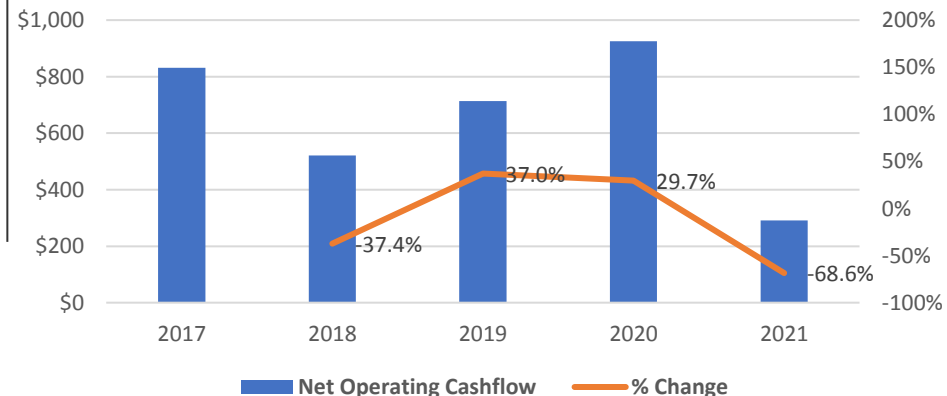
5-year Revenues (in \$MM)



5-year Operating Profit (in \$MM)



5-year Net Operating Cashflow Profit (in \$MM)



Source: NOV Financials

Evaluate Financial Health of Major Players

- **Cross-Sectional Analysis**
 - Computes key ratios for a company and compares them to the ratios of peers and the industry. Four key areas of financial health are:
 - **Liquidity:** measures a company's ability to satisfy its short-term obligations as they come due.
 - **Activity:** measures the speed with which various accounts are converted into sales or cash (a.k.a. turnover ratios).
 - **Profitability:** measures the returns a company makes on items such as sales, assets, and shareholder equity.
 - **Debt:** measures a company's financial leverage, i.e. the amount of debt a company uses to generate profits.
- **Trend Analysis**
 - Evaluates a company's growth rates in key areas and compares those rates to peers and the industry. The following trends are typically analyzed:
 - **Revenue**
 - **Profitability:** Operating profit & Net profit
 - **Cash:** Net operating cash

Find Necessary Information in Financial Statements...

- **Company Financial Statements** consist of:
 - Income Statement OR Statement of Operations
 - Balance Sheet
 - Statement of Cash Flows
- Financial statements are typically reported in the company's annual (or quarterly) report. To obtain financial statements:
 - Search within the "Investor Relations" or "About Us" section of a Company website,
 - Search the stock exchange website of the country they are traded in (or equivalent governing body), or
 - Issue a Request for Information (RFI)

Income Statement

- **Income Statement** (also known as Profit & Loss Statement or Statement of Operations)
 - Provides a summary of a company's incomes and expenses (operating results) for a specified period
 - Typically covers a one-year period
 - Quarterly statements are also available for publicly held corporations

Example of Basic Structure

STATEMENTS OF INCOME			
	YEAR 3	YEAR 2	YEAR 1
Revenues	\$12,580.2	\$ 10,900.4	\$ 8,290.3
Cost of sales	6,740.2	5,650.1	4,524.2

Gross profit	6,835.0	5,657.3	3,270.1
Selling, general and administrative expenses	3,624.6	3,296.3	3,034.0
Other (income) expense, net	1,100.3	(20.0)	18.0

Operating profit	2,122.1	2,166.0	2,013.1
Interest expense, net	119.7	124.1	142.8

Income before income taxes	2,102.4	1,980.9	1,870.3
Provision for income taxes	680.3	620.6	582.0

Net income	\$ 1,720.1	\$ 1,421.3	\$ 1,190.3

Income Statement Example – National Oilwell Varco

NOV INC.
CONSOLIDATED STATEMENTS OF LOSS
(In millions, except per share data)

	Years Ended December 31,		
	2021	2020	2019
Revenue			
Sales	\$ 3,769	\$ 4,409	\$ 5,862
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Cash dividends per share	\$ 0.05	\$ 0.05	\$ 0.20
Weighted average shares outstanding:			
Basic	386	384	382
Diluted	386	384	382

Turnover; Revenue

Cost of Goods Sold

Operating Profit / EBIT
(Earnings before interests
and taxes)Profit / Earnings before
taxNet Profit / Earnings after
tax

The accompanying notes are an integral part of these statements.

Balance Sheet

- Presents a summary statement of the firm's financial position on a given date
- The statement balances a company's assets (what it owns) against its financing
- Financing is in the form of Liabilities (what it owes) and Equity (what was invested by owners)

Example of Basic Structure

	<u>Year 2</u>	<u>Year 1</u>		<u>Year 2</u>	<u>Year 1</u>
ASSETS			LIABILITIES & EQUITY		
Cash	211.4	336.7	Accounts payable	748.1	718.1
Accounts Receivable	1,638.6	1,525.1	Current portion of long-term debt payable	839.2	826.9
Inventories	501.2	481.4	Accruals	23.5	269.1
Marketable securities	100.5	85.4	Short-term bank loans	80.3	90.5
Total current assets	<u>2,451.7</u>	<u>2,428.6</u>	Total current liabilities	<u>1,691.1</u>	<u>1,904.6</u>
Property, plant, and equipment	2,142.3	2,138.6	Long-term debt	2,358.6	2,365.4
Goodwill	2,886.8	2,750.7	Issued debt securities	288.0	330.6
Other intangible fixed assets	1,119.8	1,094.3	Deferred tax liabilities	604.1	596.0
Investments in associates	638.6	514.1	Other noncurrent liabilities	645.4	541.2
Other noncurrent assets	105.6	90.1	Total liabilities	<u>5,587.2</u>	<u>5,737.8</u>
TOTAL ASSETS	<u>9,344.8</u>	<u>9,016.4</u>	Stock	3,010.5	3,010.5
			Retained earnings	747.1	268.1
			Total stockholder's equity	<u>3,757.6</u>	<u>3,278.6</u>
			TOTAL LIABILITIES & EQUITY	<u>9,344.8</u>	<u>9,016.4</u>

Balance Sheet Example – National Oilwell Varco

Assets:

NOV INC.
CONSOLIDATED BALANCE SHEETS
(In millions, except share data)

Easily converted to cash within 1 year, includes: cash, inventory, trade receivables etc.

ASSETS	December 31,	
	2021	2020
Current assets:		
Cash and cash equivalents	\$ 1,591	\$ 1,692
Receivables, net	1,321	1,274
Inventories, net	1,331	1,408
Contract assets	461	611
Prepaid and other current assets	198	224
Total current assets	4,902	5,209
Property, plant and equipment, net	1,823	1,927
Lease right-of-use assets, operating	361	371
Lease right-of-use assets, financing	176	195
Goodwill	1,527	1,493
Intangibles, net	503	527
Investment in unconsolidated affiliates	50	51
Other assets	208	156
Total assets	\$ 9,550	\$ 9,929

Assets with life exceeding 1 year, includes: goodwill, property, plant & equipment etc.

Balance Sheet Example - National Oilwell Varco

Liabilities & Equity:

LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	\$	612	\$ 489
Accrued liabilities		778	863
Contract liabilities		392	354
Current portion of lease liabilities		99	110
Current portion of long-term debt		5	-
Accrued income taxes		24	51
Total current liabilities		1,910	1,867
Long-term debt		1,708	1,834
Lease liabilities		576	612
Deferred income taxes		66	78
Other liabilities		226	259
Total liabilities		4,486	4,650
Commitments and contingencies			
Stockholders' equity:			
Common stock - par value \$.01; 1 billion shares authorized; 392,673,077 and 388,255,374 shares issued and outstanding at December 31, 2021 and December 31, 2020			4
Additional paid-in capital		8,685	8,591
Accumulated other comprehensive loss		(1,546)	(1,509)
Retained earnings		(2,146)	(1,876)
Total Company stockholders' equity		4,997	5,210
Noncontrolling interests		67	69
Total stockholders' equity		5,064	5,279
Total liabilities and stockholders' equity	\$	9,550	\$ 9,929

Obligations that must be paid within 1 year, includes: accounts payable, notes payable, short term bank loans etc.

Obligations that may be paid beyond 1 year, includes: long term debt, deferred taxes, deferred employee benefits etc.

Owners' claims on the firm's assets post all liabilities, includes: Common shares, retained earnings etc.

Cash Flow Statement

- Presents a summary statement of the firm's cash flow going into and out of the company
- The statement reports the firm's cash flow provided through three activities: **operating, investing, and financing**

Example of Basic Structure

	Year 3	Year 2	Year 1
Net income	21,538,000	24,589,000	17,046,000
Operating activities, cash flows provided by or used in:			
Depreciation and amortization	2,790,000	2,592,000	2,747,000
Adjustments to net income	4,617,000	621,000	2,910,000
Decrease (increase) in accounts receivable	12,503,000	17,236,000	--
Increase (decrease) in liabilities (A/P, taxes payable)	131,622,000	19,822,000	37,856,000
Decrease (increase) in inventories	--	--	--
Increase (decrease) in other operating activities	(173,057,000)	(33,061,000)	(62,963,000)
Net cash flow from operating activities	13,000	31,799,000	(2,404,000)
Investing activities, cash flows provided by or used in:			
Capital expenditures	(4,035,000)	(3,724,000)	(3,011,000)
Investments	(201,777,000)	(71,710,000)	(75,649,000)
Other cash flows from investing activities	1,606,000	17,009,000	(571,000)
Net cash flows from investing activities	(204,206,000)	(58,425,000)	(79,231,000)
Financing activities, cash flows provided by or used in:			
Dividends paid	(9,826,000)	(9,188,000)	(8,375,000)
Sale (repurchase) of stock	(5,327,000)	(12,090,000)	133,000
Increase (decrease) in debt	101,122,000	26,651,000	21,204,000
Other cash flows from financing activities	120,461,000	27,910,000	70,349,000
Net cash flows from financing activities	206,430,000	33,283,000	83,311,000
Effect of exchange rate changes	645,000	(1,840,000)	731,000
Net increase (decrease) in cash and cash equivalents	\$2,882,000	\$4,817,000	\$2,407,000

Types of Cash flows

- **Cash flows from operating activities-** Represents the net cash flow from business operations. It includes net income adjusted for non-cash expenditures like depreciation, amortization, etc. and changes in net working capital.
- **Cash flows from investing activities-** Includes cash flows associated with purchase and sale of both fixed assets and business interests
- **Cash flows from financial activities** – Includes cash flows that result from debt and equity financing such as sale of stock, repayment of debt, repurchase of stock, payment of dividends, etc.

Cash Flow Statement Example - National Oilwell Varco

NOV INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Years Ended December 31,		
	2021	2020	2019
Cash flows from operating activities:			
Net loss	\$ (245)	\$ (2,537)	\$ (6,093)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	306	352	533
Deferred income taxes	11	(65)	(426)
Stock-based compensation	78	105	130
Loss on extinguishment of debt	7	8	26
Equity loss in unconsolidated affiliates	5	260	13
Goodwill and indefinite-lived intangible asset impairment	—	1,378	3,612
Long-lived asset impairment	—	513	2,209
Provision for inventory losses	73	367	659
Other, net	16	16	16
Change in operating assets and liabilities, net of acquisitions:			
Receivables	(52)	574	275
Inventories	17	429	104
Contract assets	150	30	(70)
Prepaid and other current assets	28	22	(45)
Accounts payable	118	(226)	(19)
Accrued liabilities	(97)	(110)	(194)
Contract liabilities	27	(74)	(34)
Income taxes payable	(28)	9	(25)
Other assets/liabilities, net	(123)	(125)	43
Net cash provided by operating activities	291	926	714
Cash flows from investing activities:			
Purchases of property, plant and equipment	(201)	(226)	(233)
Business acquisitions, net of cash acquired	(52)	(14)	(180)
Other, net	57	96	98
Net cash used in investing activities	(196)	(144)	(315)
Cash flows from financing activities:			
Borrowings against lines of credit and other debt	60	36	511
Payments against lines of credit and other debt	(183)	(217)	(1,000)
Financing leases	(26)	(31)	(32)
Cash dividends paid	(20)	(19)	(77)
Debt issuance and extinguishment costs	(7)	(8)	(36)
Other	(13)	(20)	(13)
Net cash used in financing activities	(189)	(259)	(647)
Effect of exchange rates on cash	(7)	(2)	(8)
Increase (decrease) in cash and cash equivalents	(101)	521	(256)
Cash and cash equivalents, beginning of period	1,692	1,171	1,427
Cash and cash equivalents, end of period	\$ 1,591	\$ 1,692	\$ 1,171
Supplemental disclosures of cash flow information:			
Cash payments during the period for:			
Interest	\$ 76	\$ 83	\$ 85
Income taxes	\$ (78)	\$ (9)	\$ 144

Represents the net cash flow from business operations. It includes net income adjusted for non-cash expenditures

Includes cash flows associated with purchase and sale of both fixed assets and business interests

Includes cash flows that result from debt and equity financing such as sale of stock, repayment of debt, etc.

Source: NOV Financials, the above picture shows only few items of entire cashflow statement

Conducting Ratio Analysis

Steps for Ratio Analysis

1. Identify and compute key ratios
2. Conduct peer comparison
3. Identify significant variances, if any
4. Investigate reasons for variances
5. Evaluate ratios and assign financial health ratings

Liquidity Ratios

- **Current Ratio**- measures a company's ability to meet its short-term obligations.

It is calculated as follows:

$$\uparrow \text{Current Ratio} = \frac{\text{Current Assets (a)}}{\text{Current Liabilities (a)}} = \frac{4,902}{1,910} = 2.57$$

- **Quick Ratio**- is similar to the current ratio except that it excludes inventory from current assets.

$$\uparrow \text{Quick Ratio} = \frac{\text{Current Assets (a)} - \text{Inventory (a)}}{\text{Current Liabilities (a)}} = \frac{4,902 - 1,331}{1,910} = 1.87$$

(a) from Balance Sheet

The higher the value of these ratios, the more liquid the company. The ideal ratio depends upon the nature of the industry.

Activity Ratios

- ❑ **Inventory Turnover Ratio**- measures the efficiency or speed at which a company converts its inventory into sales

$$\uparrow \text{Inventory Turnover} = \frac{\text{Cost of Goods Sold (b)}}{\text{Inventory (a)}} = \frac{4,742}{1,331} = 3.56$$

$$\downarrow \text{Inventory Turnover (Days)} = \frac{365}{\text{Inventory Turnover}} = \frac{365}{3.56} = 102$$

(a) from Balance Sheet

(b) from Income Statement

- A low inventory turnover ratio (relative to the industry) indicates that the company is having difficulty in selling its inventory.
- A low inventory turnover ratio could be due to obsolete products, poor quality, unreliable delivery, poor planning, etc.

Activity Ratios

- ☐ **Receivables Turnover Ratio**- measures the average amount of time needed to collect receivables

↑
$$\text{Receivables Turnover} = \frac{\text{Sales (b)}}{\text{Accounts Receivable (a)}} = \frac{5,525}{1,782} = 3.1$$

↓
$$\text{Receivables Turnover (Days)} = \frac{365}{\text{Receivables Turnover}} = \frac{365}{3.1} = 118$$

(a) from Balance Sheet

(b) from Income Statement

- Receivables turnover ratio is meaningful when compared to the Company's credit terms.
- If the average collection period consistently exceeds the credit term extended it means that customers are not paying on time. This reduces a company's operating cash flows and could also indicate potential quality issues.

Profitability Ratios

- ❑ **Operating Profit Margin**- measures the percentage of profit earned on each sales dollar after deducting operating expenses from gross profit

$$\uparrow \text{ Operating Profit Margin} = \frac{\text{Operating Income (b)}}{\text{Sales (b)}} = \frac{-125}{5,525} = -2.3\%$$

- ❑ **Net Profit Margin**- measures the percentage of profit on each sales dollar after all expenses, including taxes, have been deducted.

$$\uparrow \text{ Net Profit Margin} = \frac{\text{Net Profit after Taxes (b)}}{\text{Sales (b)}} = \frac{-245}{5,525} = -4.4\%$$

(b) from Income Sheet

Profitability Ratios

- ❑ **Return on Assets (ROA)**- also called Return on Investments (ROI). It measures the overall effectiveness of management in generating profits with its available assets



$$\text{Return on Assets} = \frac{\text{Net Profit after Taxes (b)}}{\text{Total Assets (a)}} = \frac{-245}{9,755} = -2.5\%$$

- ❑ **Net Operating Cash Margin**- measures the amount of cash generated from operating activities for every dollar of sales



$$\text{Net Operating Cash Margin} = \frac{\text{Net Operating Cash Flow (c)}}{\text{Sales (b)}} = \frac{291}{5,525} = 5.3\%$$

(a) from Balance Sheet, (b) from Income Sheet, (c) from Cash Flow Statement

High Return on Assets could indicate that the Company is either outsourcing a significant portion of its activities OR utilizing its assets very efficiently

Debt Ratios

- ❑ **Debt to Equity**- expresses the relationship between capital contributed by creditors and that contributed by owners

$$\downarrow \text{Debt to Equity} = \frac{\text{Total Liabilities (a)}}{\text{Total Stockholder's Equity (a)}} = \frac{4,691}{5,134} = 0.91$$

- ❑ **Times Interest Earned (Interest Coverage)**- measures the firm's ability to meet interest payments. This ratio also serves as an indicator of a firm's capacity to take on additional debt

$$\uparrow \text{Times Interest Earned} = \frac{\text{Earnings before Interest and Taxes}^* (b)}{\text{Net Interest Expense (b)}} = \frac{-125}{9} = -13.89$$

(a) from Balance Sheet, (b) from Income Sheet

* Also known as EBIT, Operating Income

High Debt to Equity ratio indicates that the Company is highly leveraged. The ideal ratio depends upon the nature of the industry.

Cross Sectional Analysis Example

Evaluate the financial health of major players

- Peer comparison: evaluate performance of major players against each other

	3-yr Avg.				Industry Average
	<u>National Oilwell Varco</u>	<u>Schoeller-Bleckmann Oilfield Equipment</u>	<u>Phoenix Energy Services</u>	Peer Group Average	
<u>Liquidity Ratios</u>					
Current Ratio	2.69	2.14	1.98	2.27	1.10
Quick Ratio	1.88	1.62	1.48	1.66	0.80
<u>Activity Ratios</u>					
Inventory Turnover Ratio	3.68	1.99	6.16	3.94	
Inventory Turnover (Days)	99.55	184.81	59.96	114.77	
Receivables Turnover Ratio	3.24	4.08	3.40	3.57	5.60
Receivables Turnover (Days)	112.85	92.54	110.09	105.16	65.18
<u>Profitability Ratios</u>					
Operating Profit Margin (%)	-5.50%	5%	2.77%	0.81%	5.60%
Net Profit Margin (%)	-39.36%	2%	1.20%	-11.95%	1.10%
Return on Assets (%)	-24.26%	1%	1.33%	-7.26%	1.00%
Net Operating Cash Margin (%)	9.65%	21%	18.30%	16.23%	
<u>Debt Ratios</u>					
Debt to Equity	0.98	1.49	0.82	1.10	2.98
Times Interest Earned (TIE)	-38.00	1.41	3.41	-11.06	1.00

Cross Sectional Analysis - Rating for NOV

Ratio Category	Rating	Weights	Scores	Weighted Scores	Rationale
Liquidity	Above Average	10%	7	0.7	Both Current and Quick ratio are above peer group average
Activity	Below Average	25%	4	1	Inventory turnover is less than peer group avg while receivable turnover is slower than peer group average
Profitability	Poor	40%	3	1.2	NOV has made losses over the last few years while the other peers in the industry made profits
Debt	Below Average	25%	4	1	Debt to equity ratio is lower than peer group while the times interest earned is negative due to the losses
Overall	Below Average			3.9	Overall company rating is "Below Average" based on the Cross-sectional Ratio Analysis

Significant Variances and Explanations

- Profitability –NOV had major loss in 2019 and 2020 while the losses in 2021 went back to 2018 levels

Scoring Guide

1 – 2	Weak
3 – 4	Below Average
5	Average
6 – 7	Above Average
8 – 9	Strong

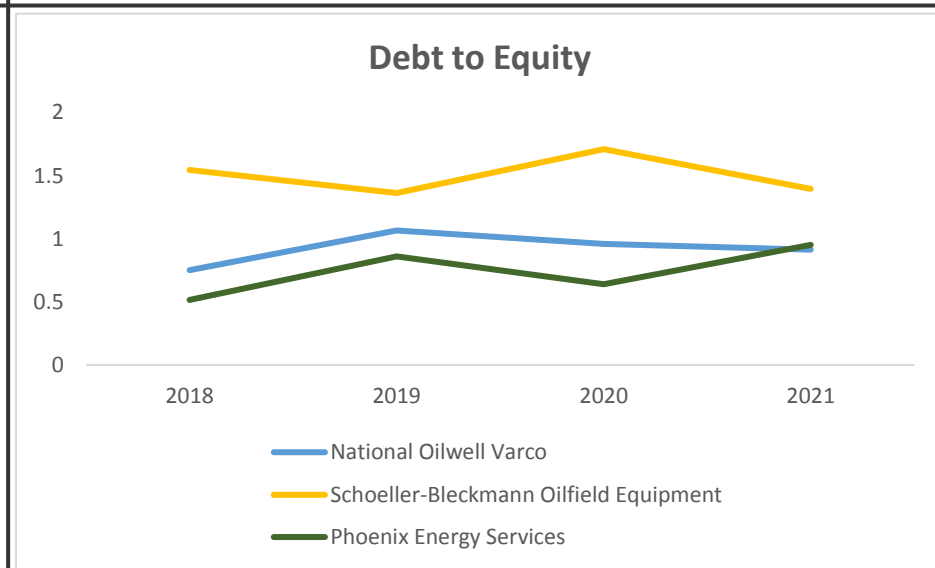
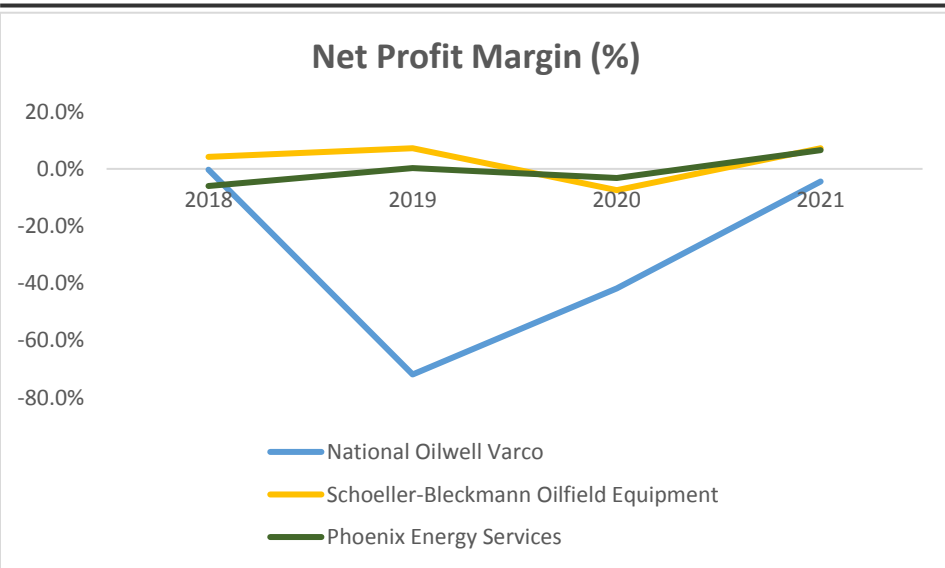
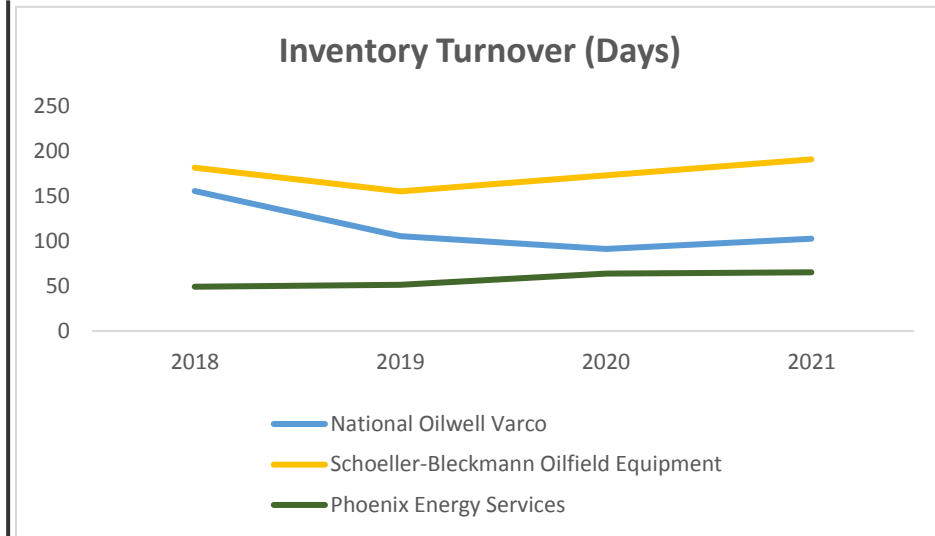
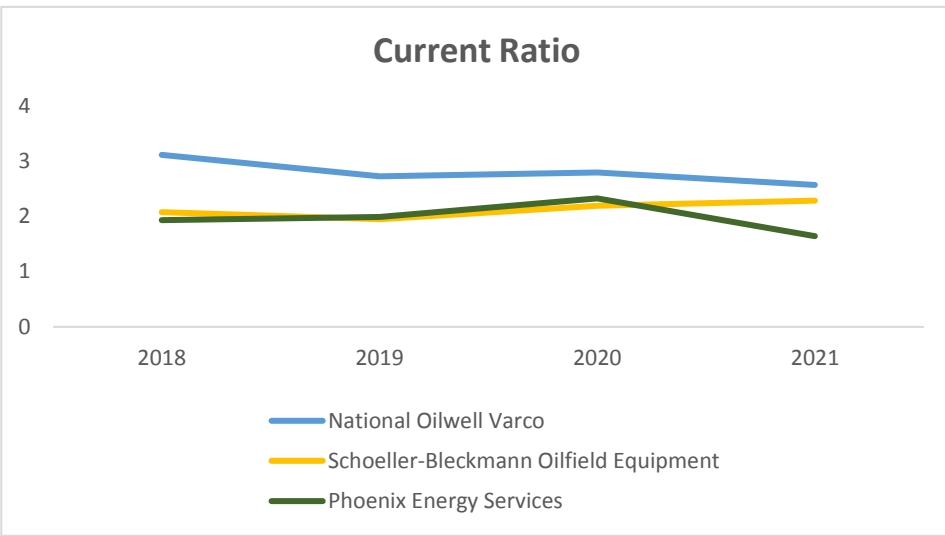
Conducting Trend Analysis

Evaluates trends in key metrics over multiple time periods

Steps for Trend Analysis

1. Calculate trends in key items (Ratios, Revenue, Operating Profit, Net Profit)
2. Conduct peer comparison
3. Identify significant variances, if any
4. Investigate rationale for variances
5. Evaluate trends and assign financial health ratings

Trend Analysis Example - Ratios



Trend Analysis- Rating Ratio Trends for NOV

Ratio Category	Rating	Weights	Scores	Weighted Scores	Rationale
Liquidity Trends	Above Average	10%	8	0.8	Both Current and Quick ratio are above peer group average over the last 4 years but are trending downwards
Activity Trends	Average	25%	5	1.25	Activity ratios are close to the average of the peer group and have been trending upwards over the last year
Profitability Trends	Poor	40%	3	1.2	NOV has made losses over the last 4 years with 2019 and 2020 being big loss making years.
Debt Trends	Below Average	25%	4	1	Debt to equity ratio is below peer group average and has stabilised over the last two years
Overall	Below Average			4.25	Overall company rating is "Below Average" based on the Trend Ratio Analysis

Scoring Guide

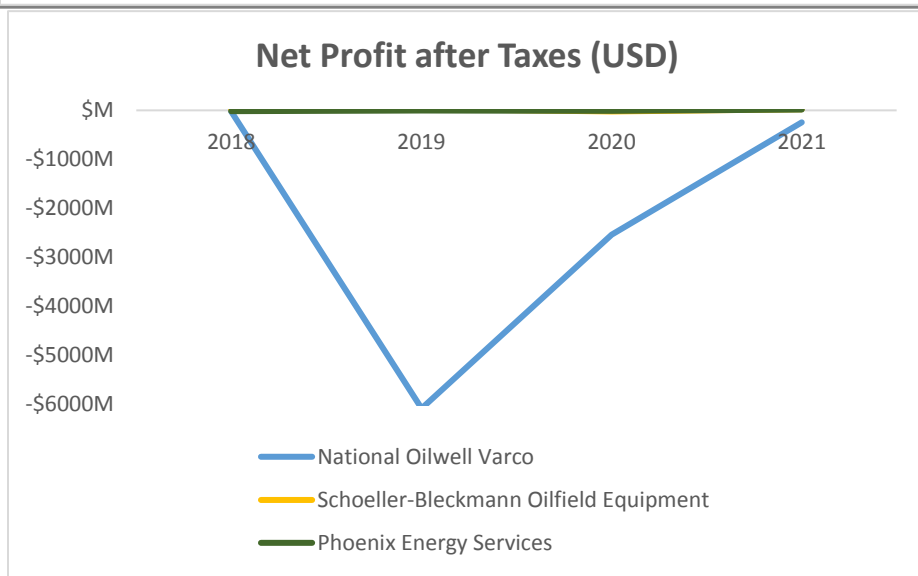
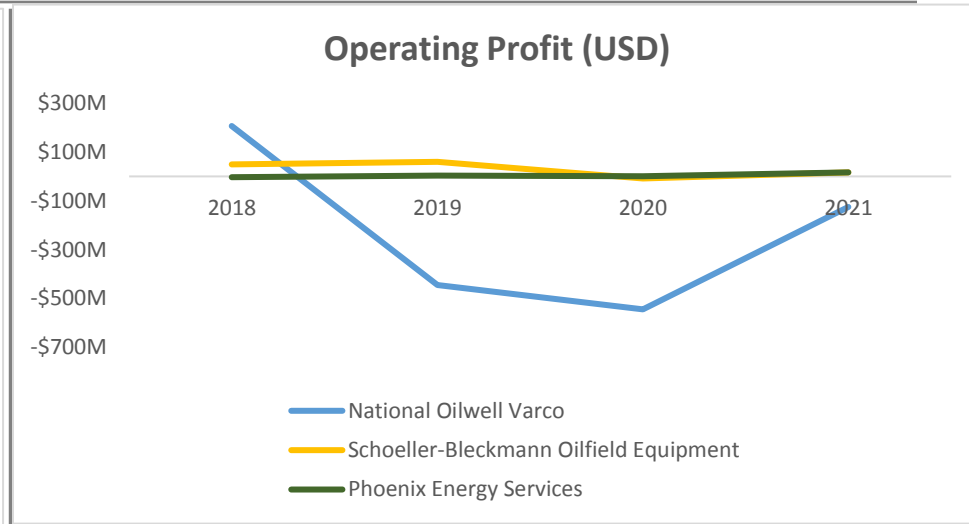
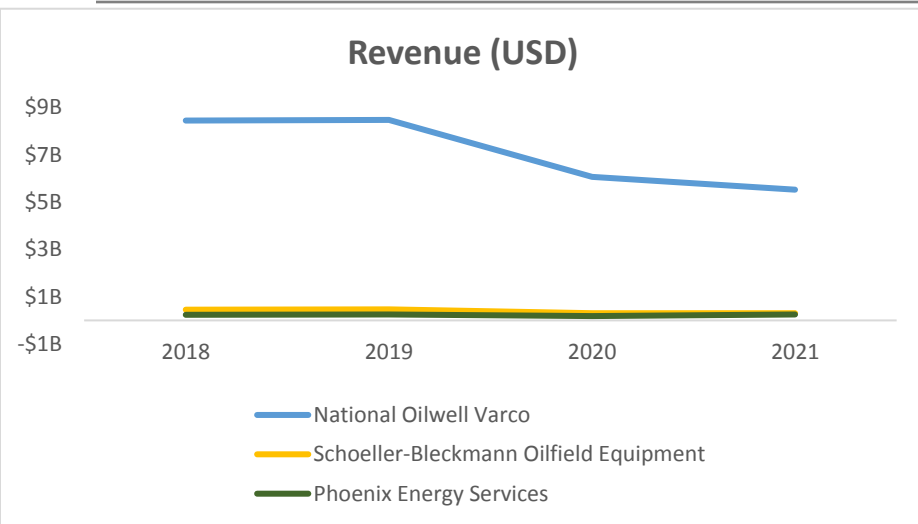
1 – 2	Weak
3 – 4	Below Average
5	Average
6 – 7	Above Average
8 – 9	Strong

Rating

Below Average

- NOV made massive losses in 2019 and 2020 but they have witnessed a slight recovery in 2021
- Debt to equity has been stabilizing while their ability to cover their interest expense has been far below industry average.

Trend Analysis Example – Revenue, Profits



Rating

Above Average

- NOV revenues are much higher than the peer group chosen
- After a poor 2019, NOV Net losses and operating profits have reduced.

Evaluating Overall Financial Health

Using the information from ratio and trend analyses, determine the overall financial health ratings

Example of Overall Rating – NOV

Cross Sectional Ratio Analysis	Below Average
Ratio Trend Analysis	Below Average
Revenue, Profits Trend analysis	Above Average
Overall Financial Health Rating	Average

Analyzing Country Risk

A country risk evaluation is conducted for those countries where major players are located.

Objectives



\$\$

Determine viability of investments in international suppliers/markets by examining

- Political stability of source country
- Economic health of source country
- Financial maturity and robustness of source country



S | W
—
O | T

Use findings from country risk analysis in supplier SWOT analysis

Example of Country Risk Analysis: NOV

Country risk analysis performed for countries of operation for National Oilwell Varco

Country	Operations	Risk Rating
United States	Wellbore, Completion, Rig	Low
Norway	Wellbore, Completion, Rig	Low
Saudi Arabia	Wellbore, Completion, Rig	Medium
Brazil	Wellbore, Completion, Rig	Medium-High
China	Wellbore, Completion, Rig	Low-Medium
Canada	Wellbore, Completion, Rig	Low
United Kingdom	Wellbore, Completion, Rig	Low
Singapore	Wellbore, Completion, Rig	Low
United Arab Emirates	Wellbore, Completion, Rig	Low-Medium



Conducting a SWOT Analysis

Strengths Weaknesses Opportunities Threats

A **SWOT** analysis

- is a strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a business decision.
- can be conducted for several different objectives such as evaluating a supplier's financial health, introducing a new product, or creating a sourcing strategy.
- is used to evaluate a supplier's capability in key sourcing areas including: Technology, Geographic coverage/locations, Financial health, Leadership, Country risk, Product/Service offering, Business

Conducting a SWOT Analysis



- What does the company do well?
- How does it stand apart from its competitors?
- What internal resources does it have?
- What kind of tangible assets does it own?

S

Strengths
(Internal)



- Which areas need improvement to compete against the strongest competitor?
- What does the business lack?
- Are its resources constrained or limited?
- Is the company location a challenge?

W

Weaknesses
(Internal)



- What opportunities exist in the market that the company benefit from?
- Can it take advantage of its core capabilities & market perception?
- Has the market undergone major change recently?

O

Opportunities
(External)



- What threatens the company's market position?
- Which factors need to be controlled to prevent the risks from materializing?
- Are there any deteriorating trends (revenue, profit etc.)?

T

Threats
(External)

Strengths



A supplier's strengths are its resources and capabilities that can give it an advantage over competition

Examples of such strengths include:

- Patents
- Strong brand name
- Human Capital
- Good reputation among customers
- Wide product breadth
- Extensive geographical coverage (access to distribution networks)
- Strong financial health
- Cost advantage from technological know-how



Weakness



Weaknesses are characteristics that place a supplier at a disadvantage compared to its competition

Examples of weaknesses include:

- Absence of Patents
- Weak brand name
- Poor reputation among customers
- Narrow product breadth
- Limited geographical coverage (access to distribution networks)
- Weak financial health
- High cost structure
- High management turnover



Opportunities



Opportunities are elements in the external environment that the supplier can exploit for profit and growth

Examples of such opportunities include:

- Peers/competitors in poor financial health (pricing advantage, potential acquisition targets)
- An unfulfilled customer need
- Arrival of new technologies
- Loosening of government regulations
- Removal of international trade barriers
- Ease of doing business in a country

U B E R

EVERYONE'S PRIVATE DRIVER™

Threats



Elements in the external environment that could present threats to a firm's operations/existence

Examples of such threats include:

- Shifts in consumer tastes away from the firm's products
- Emergence of substitute products
- Risk of supply
- Rising material prices
- Acquisition by a larger competitor
- Increased government regulations
- Barriers to international trade
- Political disruptions in country of operation
- Emergence of new local competitors



SWOT Analysis – Rating of Major Players

Using the information from SWOT Analysis, rate each major player

Rating Guide

Rating	Rationale
STRONG	<ul style="list-style-type: none"> ▪ Significant Strengths ▪ Relatively easy to exploit Opportunities ▪ Weaknesses and Threats easily overcome
AVERAGE	<ul style="list-style-type: none"> ▪ Average Strengths ▪ Exploiting Opportunities requires some effort / resources ▪ Overcoming Weaknesses and Threats requires some effort / resources
WEAK	<ul style="list-style-type: none"> ▪ Few or no Strengths ▪ Exploiting Opportunities requires extraordinary effort / resources ▪ Overcoming Weaknesses and Threats requires extraordinary effort / resources

Example of SWOT Analysis – NOV

Strengths

- Established in 1862, NOV is a leading independent equipment and technology provider to the global energy industry
- Diverse product portfolio that meets a wide range of customer needs across all energy producing industries.
- Operations in 61 countries under three segments: Wellbore Technologies, Completion & Production Solutions, and Rig Technologies
- Strong Liquidity ratios as compared to the peer group

Weaknesses

- NOV has made losses over the last 4 years with big losses in 2019 and 2020
- Negative Times Interest earned which shows an inability to service debts
- Over-dependance on O&G sector
- High attrition rate in work force resulting in more expenditure on training and development of its employees.

Opportunities

- Increasing global energy demand due to increasing population
- Increasing mandates for Renewable Energy provides NOV with the opportunity to innovate and diversify their offerings across wind, solar etc.
- Acquisitions and joint ventures in developing countries

Threats

- Dependent upon the level of activity in the oil and gas industry, which is volatile and may cause fluctuations in operating results.
- Competition from local and regional service providers
- Political Disruptions – Current political instability, war risk and commercial risk
- Rising raw material, environment & labor costs.
- Increasing trade restrictions being imposed by some countries to protect domestic industries

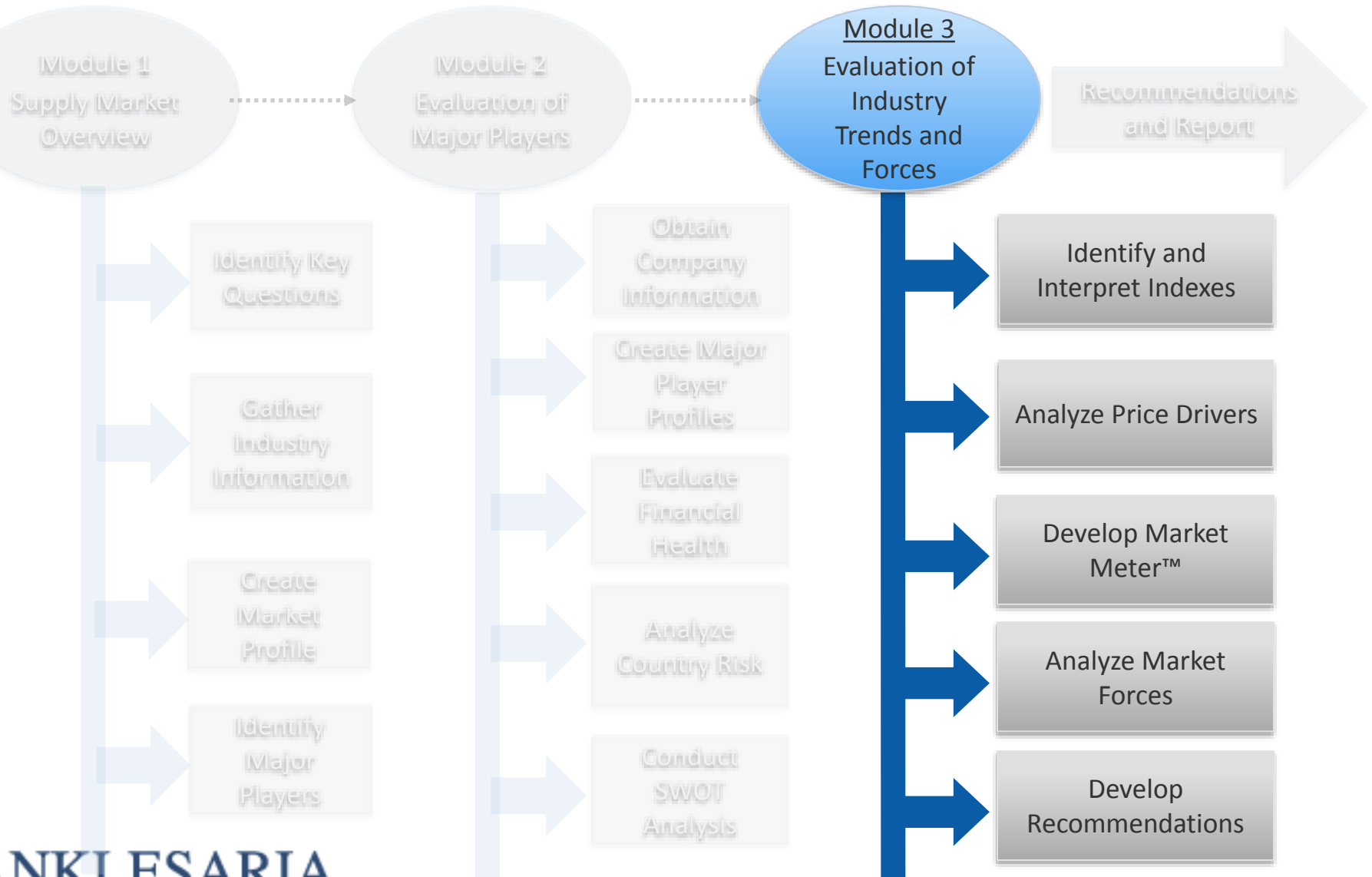
SWOT Rating

Above Average

Source: NOV Market Line Report, OICA.net, NOV analyst report



Supply Market Overview



MARKETBEAT | Market insight from WSJ.com



Alamy

Guar is a key ingredient in the fluids used to fracture shale formations.

Little Plant Proves a Big Pest

Guar Shortage Vexes Oil Industry

Module 3 Objectives



Understand historical trends in pricing for the category



Determine future trends (short and long term)



Evaluate the competitive forces in the market

- Determine the nature of competition
- Assess competitive position



Develop a recommendation for action

Analyzing Market Trends

Objectives:

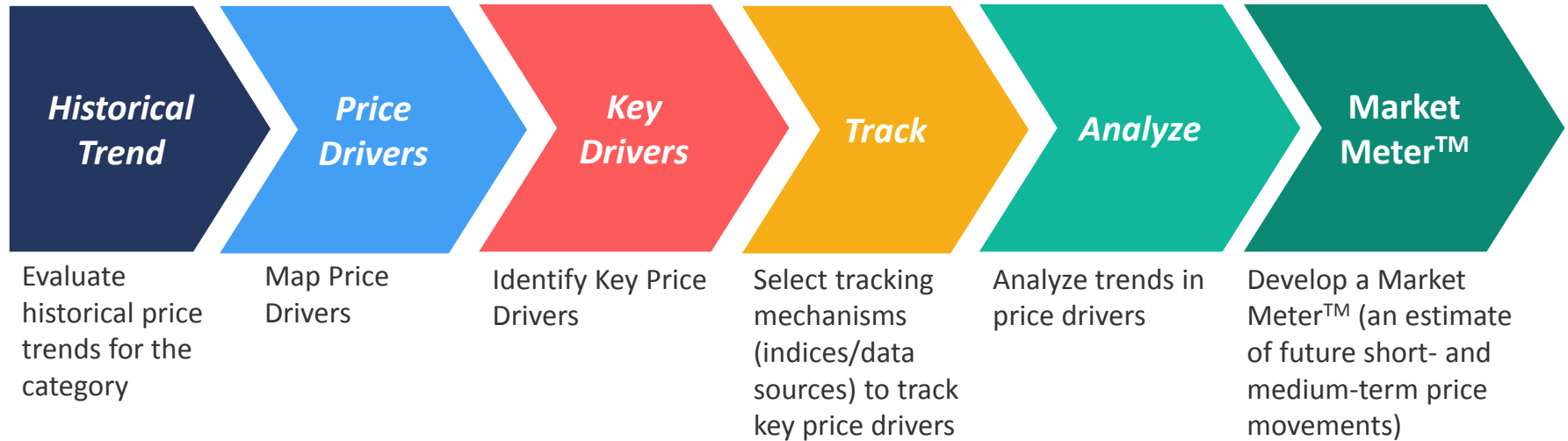


Understand historical trends in pricing for the category

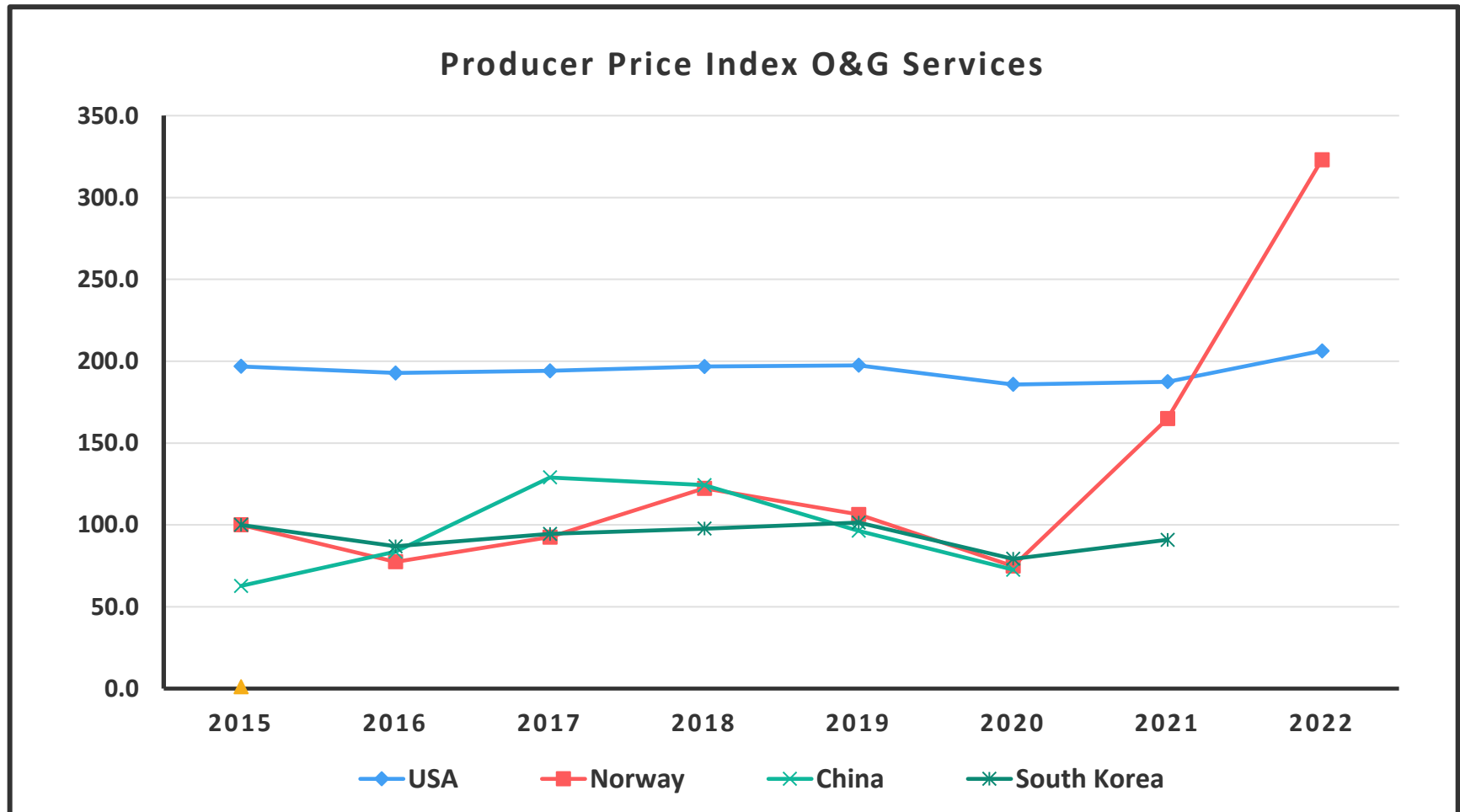


Determine future trends (short and long term)

Steps:



Example: Historical Price Trends for O&G Services



Source: Bureau of Labor Statistics (US), Chinese Statistical Yearbook, Bank of Korea, SSB Norway

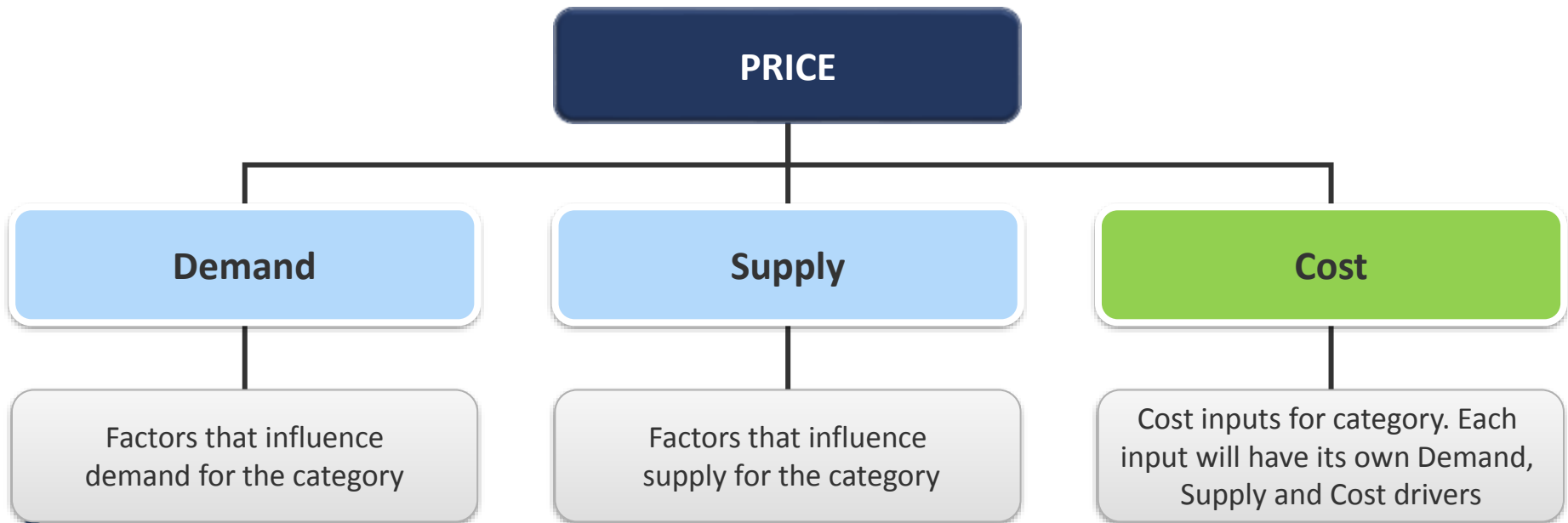
Mapping Price Drivers

Price Drivers:

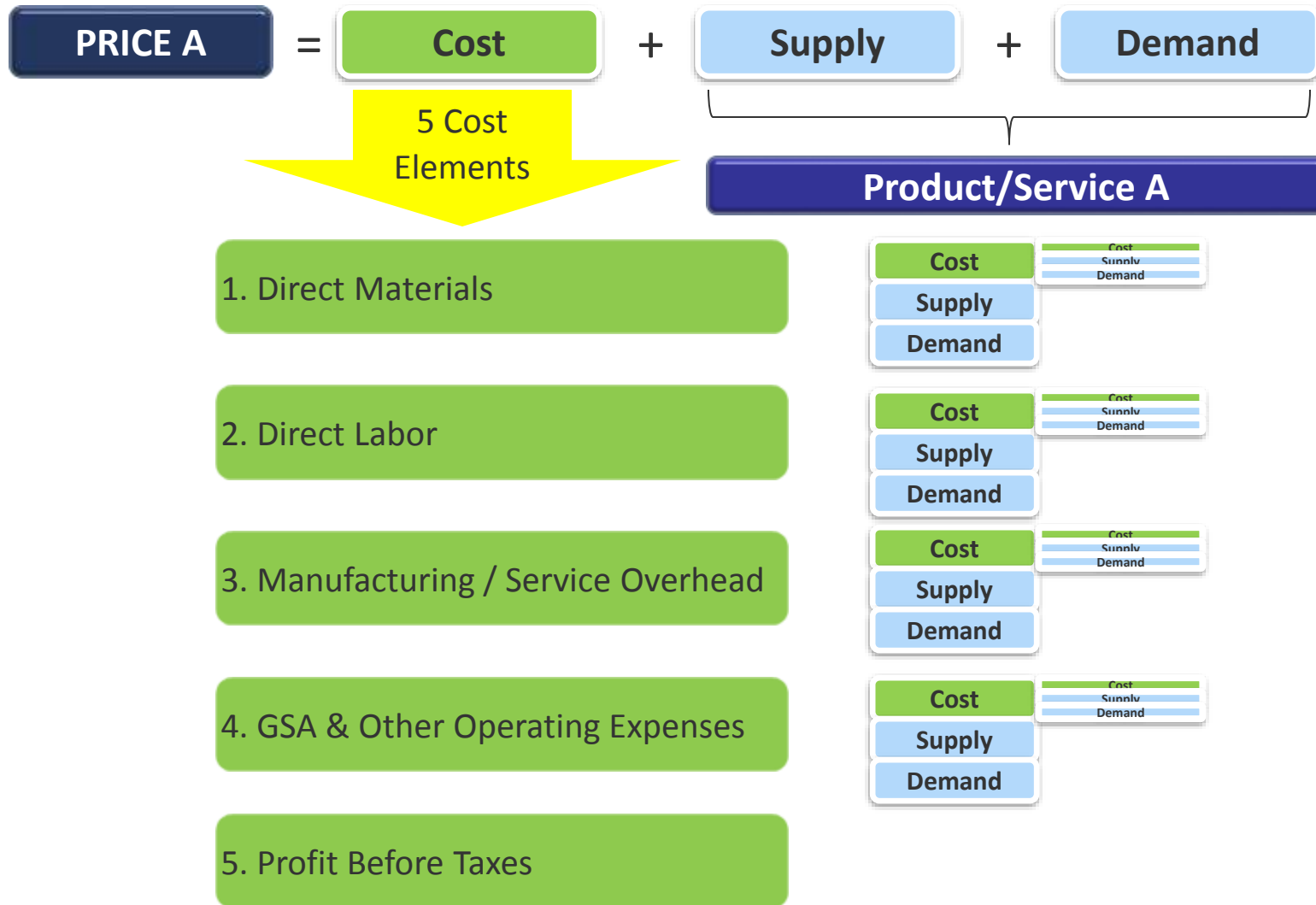
- Factors/metrics that are leading indicators of trends in market prices

Why mapping price drivers is important:

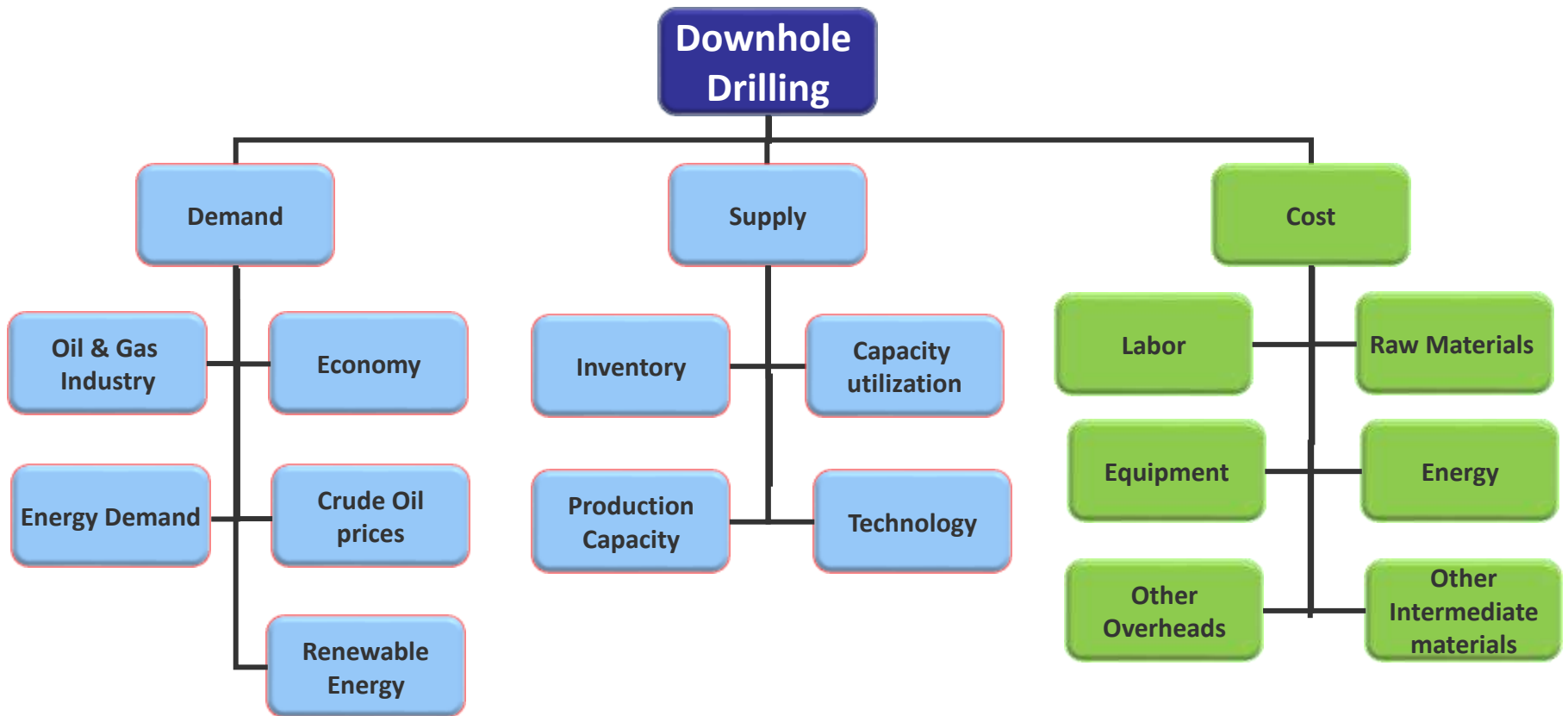
- To predict price trends
- To identify potential constraint points
- To develop effective sourcing and cost management strategies



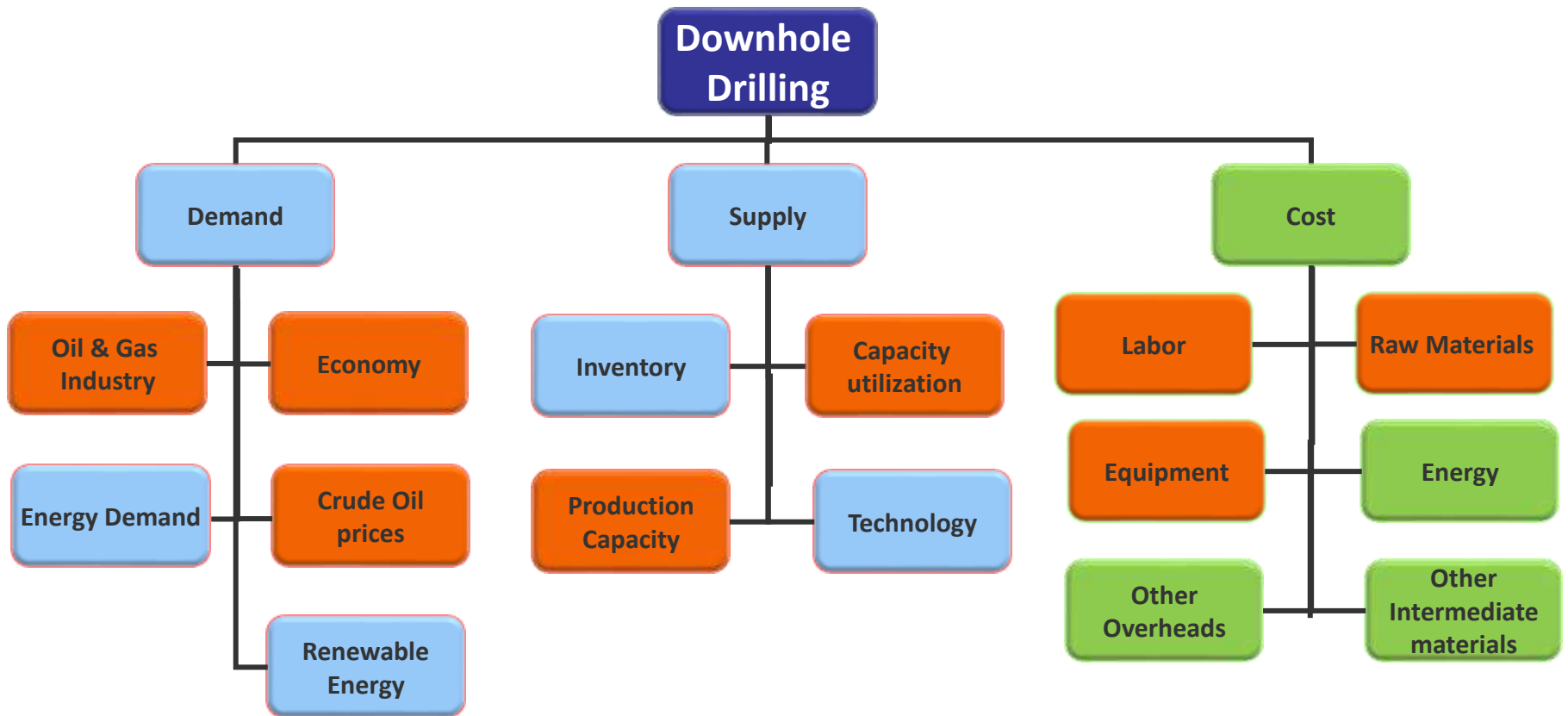
Mapping Price Drivers



Example: Mapping Price Drivers –Downhole Drilling



Example: Mapping Price Drivers –Downhole Drilling



 Key Price Drivers

Select Tracking Mechanisms for Key Price Driver Trends

- Identify indices and sources (reports, articles etc.) for trend data
- Use proxy indices in absence of a perfect match with a specific index
- Look at trends in conjunction with one another
- Analyze reasons for sudden spikes, if any
- Be consistent with selection of data sources
- Identify forecast sources for expected future trends
- Validate forecasts with actuals

Sources for industry trend data:

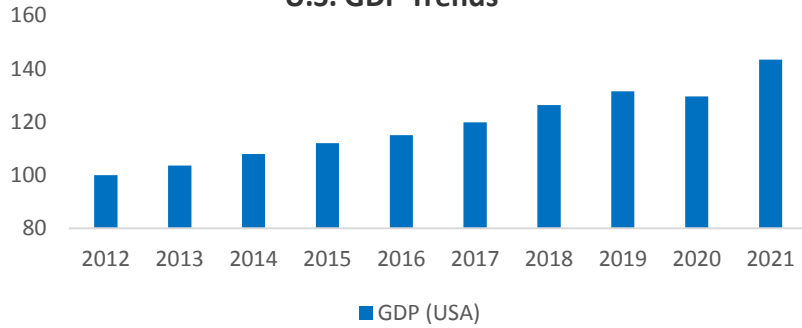
- Government agencies
- Trade associations
- Private subscription service providers
- Analyst reports
- Commodity exchanges

Examples of Indices

Type of Index	Examples of Indices Sources
Producer Price Indices	<ul style="list-style-type: none"> ➤ Producer Price Index (PPI) – US ➤ Corporate Goods & Services Price Index – Japan ➤ Producer Price Index (PPI) – China ➤ Eurostat PPI – EU ➤ Chile PPI – Chile
Consumer Price Indices	<ul style="list-style-type: none"> ➤ Consumer Price Index (CPI) – US ➤ Consumer Price Index (CPI) – Singapore ➤ Consumer Price Index (CPI) – South Africa
Labor Cost Indices	<ul style="list-style-type: none"> ➤ Employment Cost Index (ECI) – US ➤ Eurostat Labor Cost Index – EU
Productivity Indices	<ul style="list-style-type: none"> ➤ Industry Productivity & Cost – US ➤ Labor Productivity – UK

Analyze Demand Driver Trends

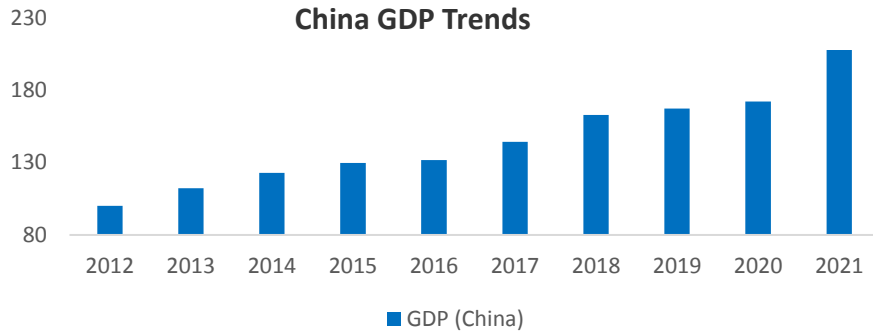
U.S. GDP Trends



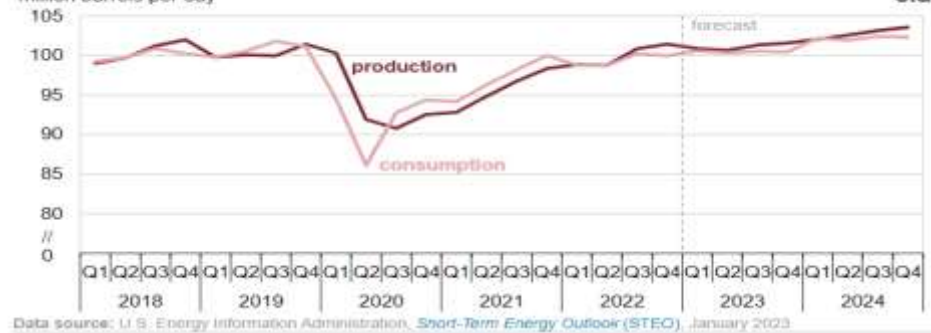
WTI Crude Oil Price Trends



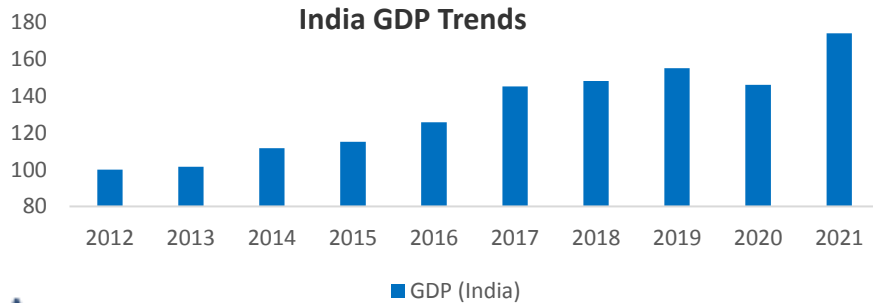
China GDP Trends



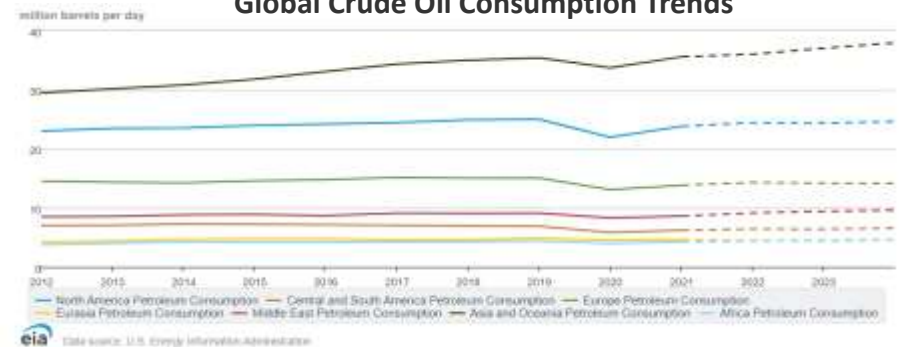
Quarterly world liquid fuels production and consumption (2018–2024)



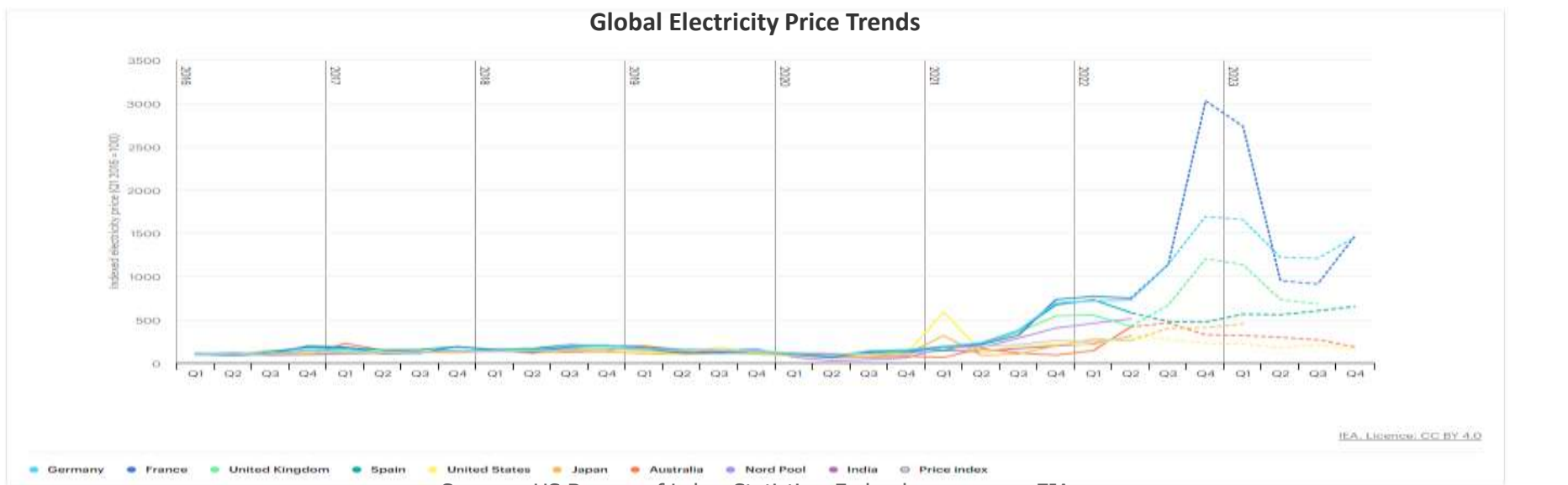
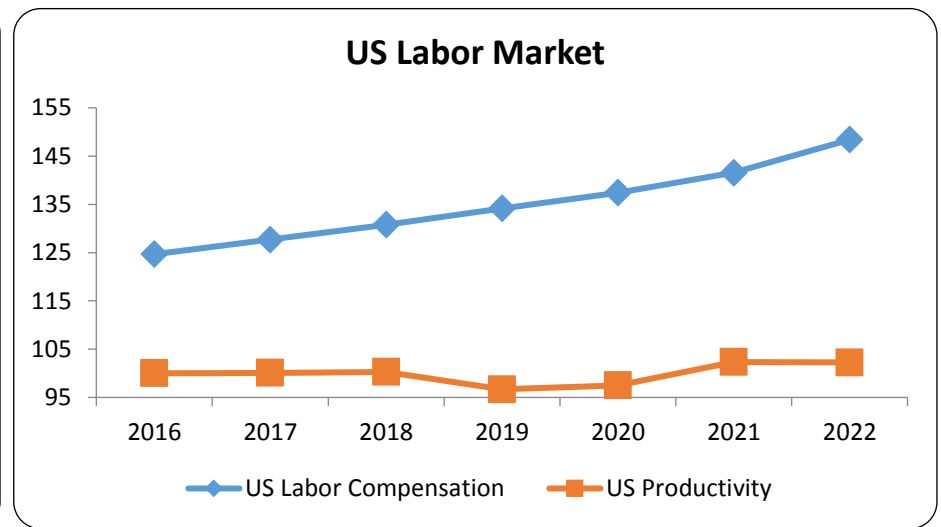
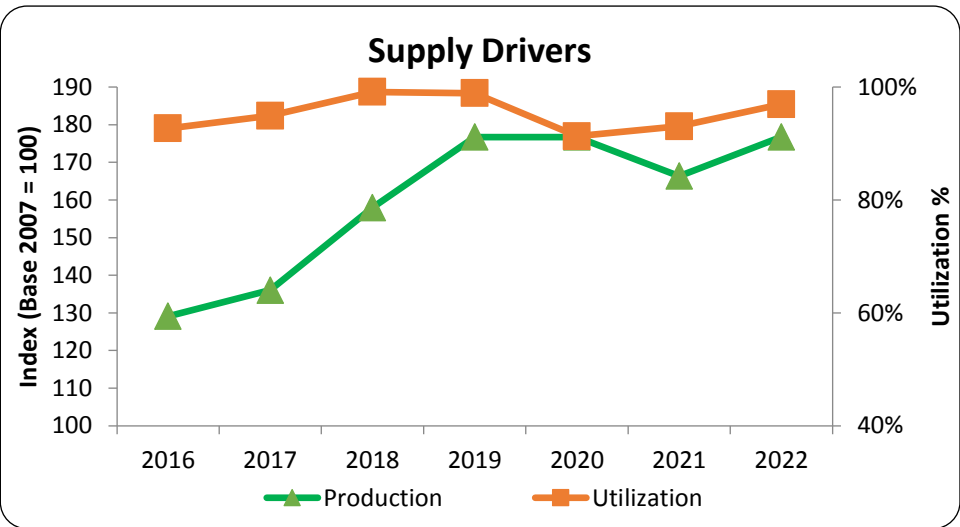
India GDP Trends



Global Crude Oil Consumption Trends



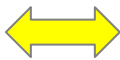


Analyze Supply and Cost Driver Trends









Sources: US Bureau of Labor Statistics, Federalreserve.gov, EIA

Analyze Trends to identify Impact on Prices

Key Demand Drivers	Trend (Up, Down, Flat)	Rate (S, M, F)	Comments	Price Impact
Economic Growth	Up	M	<ul style="list-style-type: none"> Global GDP witnessed a drop in 2020 owing to the Covid-19 pandemic with an immediate recovery in 2021 and 2022. The upward trend of Global GDP translated to a higher demand for Oil & Gas and thus a higher demand for Downhole Drilling. 	
Oil & Gas Industry	Up	M	<ul style="list-style-type: none"> Global liquids fuel consumption in the forecast increases from an average of 99.4 million barrels per day (b/d) in 2022 to 102.3 million b/d in 2024, driven primarily by growth in China and other non-OECD countries. 	
Crude Oil Prices	Down	S	<ul style="list-style-type: none"> EIA forecasts the Brent price will stay relatively flat through 2Q23, averaging \$85/b, and then decline through the end of 2024. EIA expects the Brent price will average \$83/b in 2023 and \$78/b in 2024, down from \$101/b in 2022. Implied builds in global petroleum inventories (when there is more petroleum production than consumption) are driving these declines in crude oil prices. 	

Analyze Trends to identify Impact on Prices

Key Supply Drivers	Trend (Up, Down, Flat)	Rate (S, M, F)	Implication	Price Impact
Capacity Utilization	Up	M	<ul style="list-style-type: none"> Capacity Utilization has witnessed an upward trend in OPEC and Non-OPEC countries owing to the opportunity created by the Russia-Ukraine war. 	
Inventory	Up	S	<ul style="list-style-type: none"> Implied builds in global petroleum inventories (when there is more petroleum production than consumption) are driving these declines in crude oil prices. EIA forecasts global petroleum inventory builds will average more than 0.6 million b/d in 2023–24. 	
Production Capacity	Up	S	<ul style="list-style-type: none"> We forecast that global petroleum production will increase by 1% (1.1 million b/d) from 2022 to 2023. The United States and OPEC account for most of the increase in global production, offsetting production declines in Russia. 	
Key Cost Drivers	Trend (Up, Down, Flat)	Rate (S, M, F)	Comments	Price Impact
Raw Material	Up	M	<ul style="list-style-type: none"> The raw materials cost is a major influencing factor in the overall milk production costs, accounting for around 43 percent of the cost share. Raw material costs are dependent on global steel product prices, which tend to be highly volatile, especially since the start of Russia–Ukraine war 	
Labour	Up	S	<ul style="list-style-type: none"> Increasing labor costs will put upward pressure on prices. 	
Energy	Up	S	<ul style="list-style-type: none"> Global electricity prices has followed an upward trend thereby putting upward pressure on prices 	

Market Meter™ - Price Outlook for Downhole Drilling

Market Meter™: An overall outlook on short-term and medium-term price movement

Price Trends (0-12 Months)

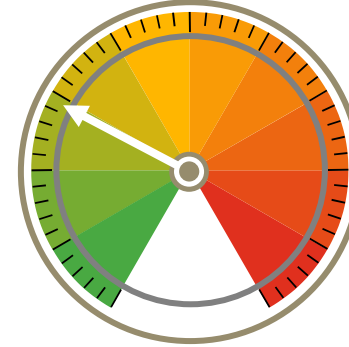


Demand – Uptick in global GDP and overall demand for Oil & Gas will put an upward pressure on prices

Supply – Increase in Production capacity and capacity utilization will have an upward pressure on prices

Cost – Increasing Raw material and Labor prices will put an upward pressure on price

Price Trends (>12 Months)



Demand – Oil and Gas production will out perform demand in 2024. This will reduce O&G prices thereby putting a downward pressure on price

Supply – As inventory levels in the industry increase, this will put a downward pressure on price

Cost – Energy and raw material costs will stabilize in the long-term thereby putting downward pressure on price

Driver Trends

Short-Term

- Downhole Drilling tools and services prices will increase in the short-term

Medium-Term

- Beyond 12 months, Downhole Drilling prices should decrease slightly

Analyzing Market Forces – Porter's 5 Forces

Objective:

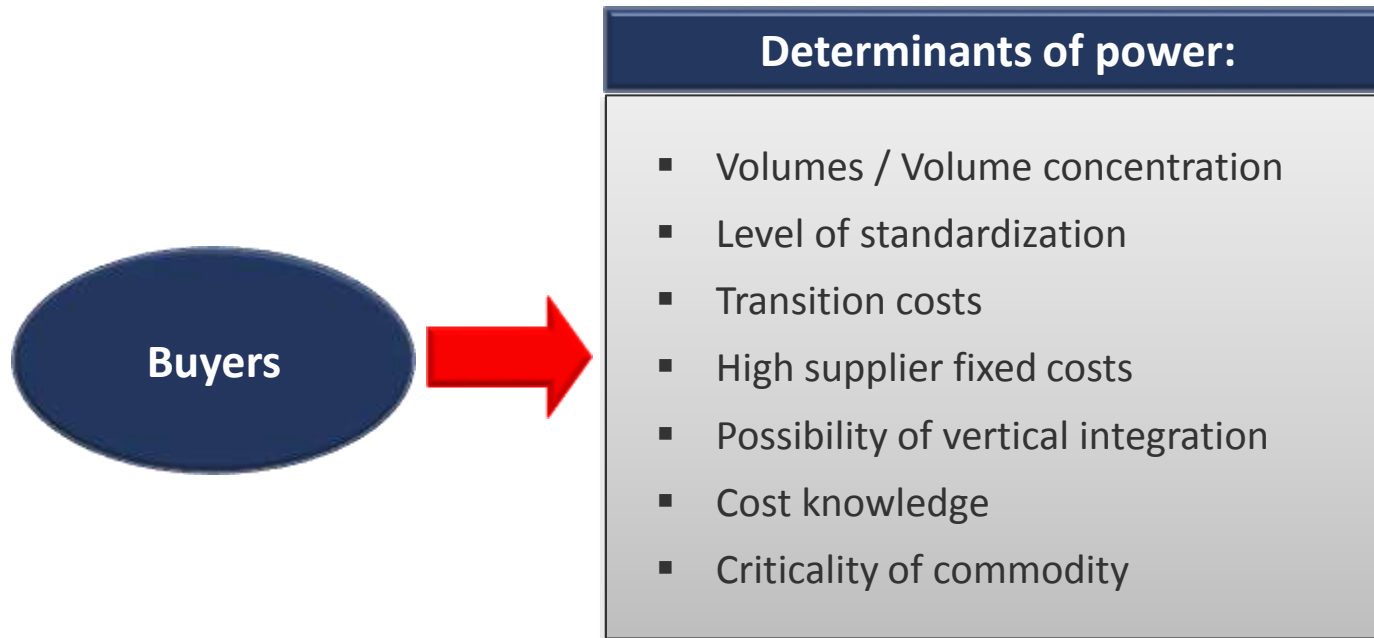
- Evaluate the competitive forces in the market to:
 - determine the nature of competition, and
 - assess competitive position

Porter's Five Forces model identifies the following 5 forces:



* 5-Forces Analysis adapted from Competitive Strategy, Michael E. Porter. Highly recommended

Porter's Five Forces – Bargaining Power of Buyers



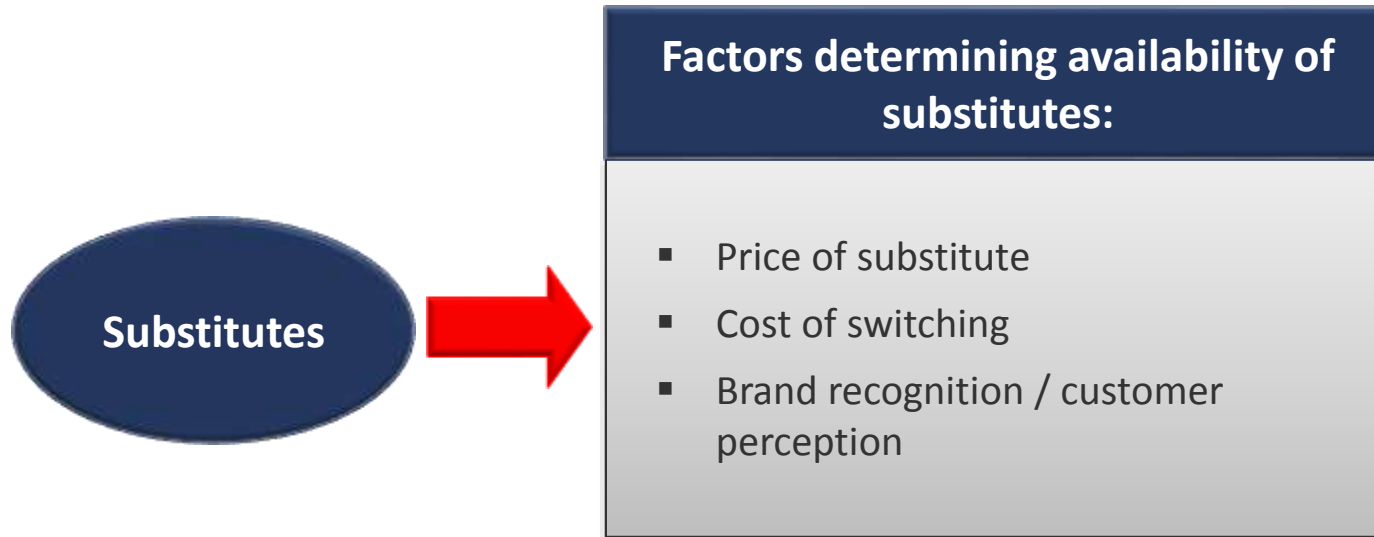
The amount of leverage that a buyer has is directly correlated to the amount of power

Bargaining Power of Buyers Example: Downhole Drilling

LOW  HIGH

	1	2	3	4	5	6	7	8	9	Score
Volume	Lower quartile buyer in supply market			Median buyer in supply market			Upper quartile buyer in supply market			8
Spend is a significant part of the buyer's cost structure	Spend accounts for less than 5% of buyer's cost structure			Spend accounts for less than 5-25% of buyer's cost structure			Spend accounts for >25% of buyer's cost structure			3
Possibility of vertical integration	Currently, no vertical integration exists and very unlikely in the future			Some buyers perform activities in-house and possibility of future vertical integration			Majority of the buyers are vertically integrated			8
Cost knowledge	Buyer cost knowledge is non-existing to very little			Buyer cost knowledge is limited, but adequate for a firm discussion			Buyer cost knowledge is at a subject matter expert level			5
Transition / switching costs	High transition costs due to capex, contractual obligations, relationship, etc.			Medium transition costs			Low transition costs and easy to switch			3
Criticality of commodity	Commodity very critical to buyer's end product			Commodity somewhat critical to buyer's end product			Commodity of minor importance to buyer's end product			1
							Overall Score			5

Porter's Five Forces – Availability of Substitutes



The availability of substitutes gives the buyer greater power to switch suppliers

Availability of Substitutes Example: Downhole Drilling

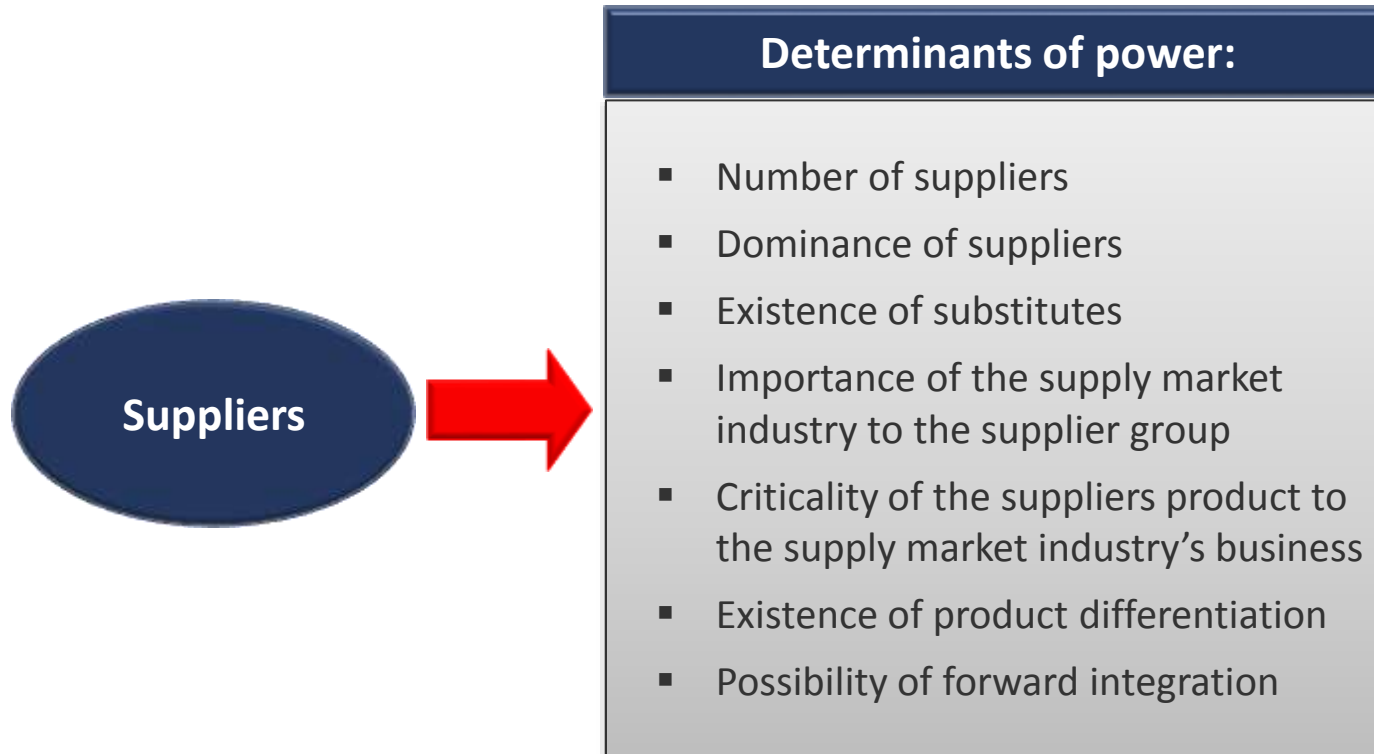
LOW



HIGH

	1	2	3	4	5	6	7	8	9	Score
Price of substitute	Substitutes prices are high relative to current product or service			Substitutes prices are medium relative to current product or service			Substitutes prices are low relative to current product or service			3
Cost of switching (buyer)	High transition costs due to capex, contractual obligations, relationship, etc.			Medium transition costs			Low transition costs and easy to switch			2
Current brand recognition / customer perception	Current brand recognition is high – customer perceives the current brand as irreplaceable			Current brand recognition is medium – customer perceives the current brand as precious, but not irreplaceable			Current brand recognition is low – customer perceives the current brand as easily replaceable			6
Production Capacity of substitute	Production capacity is very low, significant investment required			Production capacity is sufficient enough to support some transition but not all, investment required for full transition			Sufficient production capacity exists, not much investment required to meet the demand			2
							Overall Score			3

Porter's Five Forces – Bargaining Power of Suppliers (Tier II)



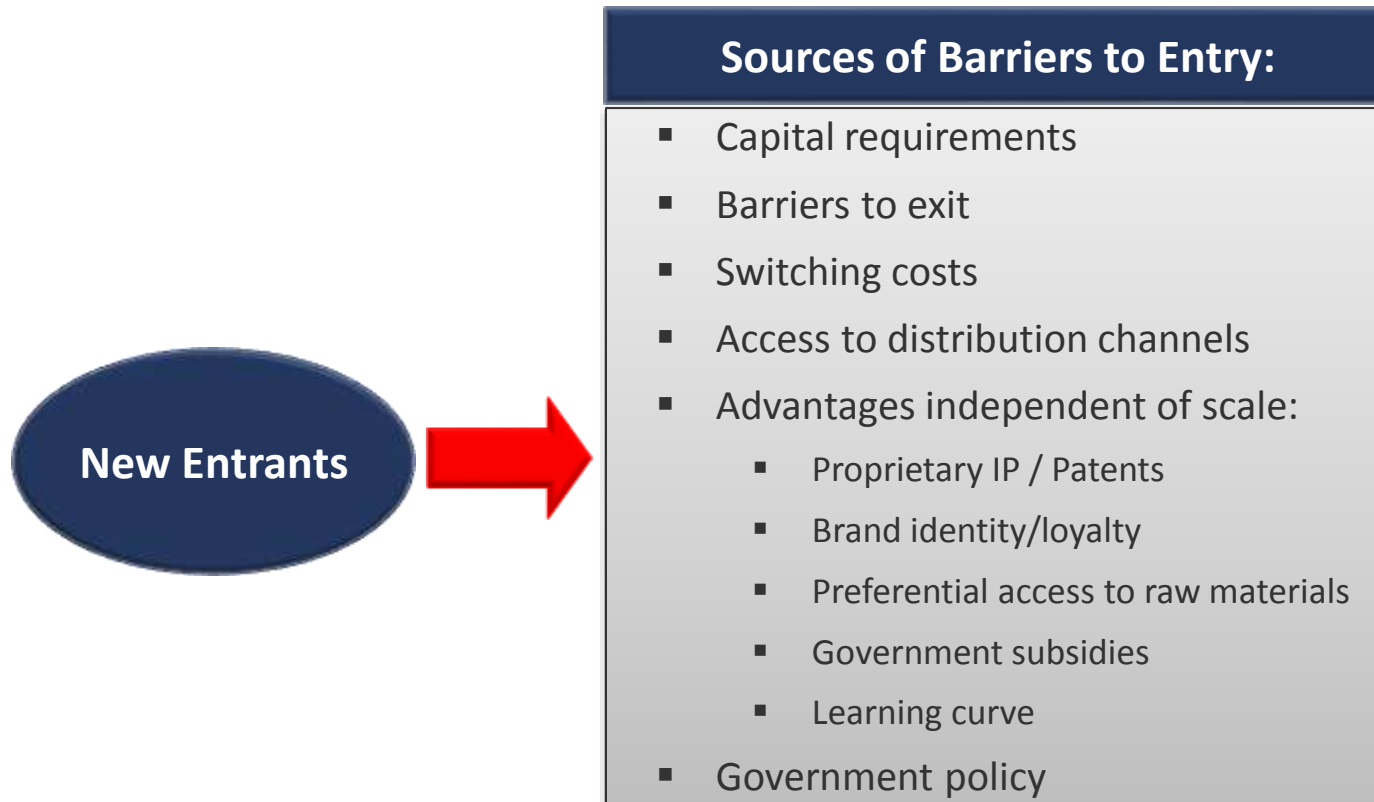
Low bargaining power of suppliers gives the supply market industry greater leverage

Bargaining Power of Suppliers Example: Downhole Drilling

LOW  HIGH

	1	2	3	4	5	6	7	8	9	Score
Number of Suppliers	High number of suppliers			Moderate number of suppliers			Low number of suppliers			5
Criticality of the supplier's product to the supply market industry's business	Supplier's product or service is not critical to the supply market business			Supplier's product or service is fairly critical to the supply market business			Supplier's product or service is very critical to the supply market business			7
Importance of the supply market industry to the supplier group	Supply market industry is very important to the supplier group			Supply market industry is somewhat important to the supplier group			Supply market industry is not important to the supplier group			3
Existence of product differentiation	Products and services are standard and not substantially differentiated			Products and services are fairly standard and not substantially differentiated			Products and services are highly customized and very differentiated			9
Possibility of forward integration	Forward integration for supplier would be costly and difficult			Possibility of forward integration is somewhat feasible			Forward integration is very easy and inexpensive			6
Existence of substitutes	High existence of substitutes of supplier's products and services			Moderate existence of substitutes of supplier's products and services			Low existence of substitutes of supplier's products and services			9
							Overall Score			7

Porter's Five Forces – Threat of New Entrants



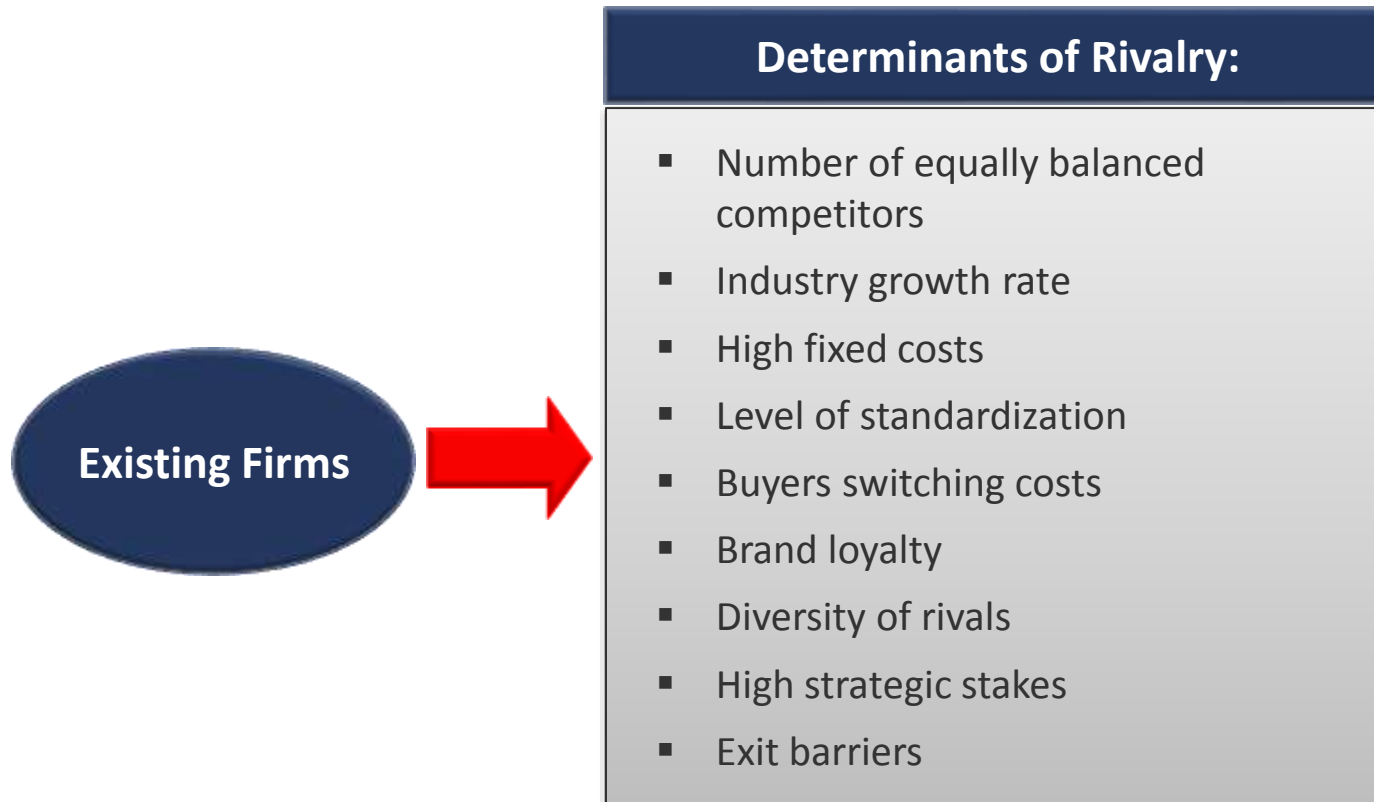
Low barriers to entry provide opportunities to create new suppliers in the supply market industry

Threat of New Entrants Example: Downhole Drilling

LOW  HIGH

	1	2	3	4	5	6	7	8	9	Score
Capital requirements	High capital requirements to enter the market			Moderate capital requirements to enter the market			Low capital requirements to enter the market			1
Barriers to exit	High barriers (cost, regulations, etc.) to exit the market			Moderate barriers (cost, regulations, etc.) to exit the market			Low barriers (cost, regulations, etc.) to exit the market			1
Access to distribution channels	Access to distribution channels is very difficult			Access to distribution channels is difficult, but not impossible			Access to distribution channels is fairly easy (i.e. internet)			4
Advantages needed independent of scale in the industry	Patents, IP, Brand loyalty, special access to raw materials etc. are essential in this industry			Patents, IP, Brand loyalty, special access to raw materials, etc. are important, but not essential			Patents, IP, Brand loyalty, special access to raw materials, etc. are not needed			3
Switching costs in supply base industry	Level of switching costs in this industry is high			Level of switching costs in this industry is medium			Level of switching costs in this industry is low			5
Government policy	Government policy is tightly regulated and present			Government policy affects the industry and may be an important factor at times			Government policy rarely, if ever, affects this industry			2
							Overall Score			3

Porter's Five Forces – Rivalry Among Existing Firms



By creating / increasing rivalry a buyer can exert downward pressure on the price.

Intensity of Rivalry Example: Downhole Drilling

LOW  HIGH

	1	2	3	4	5	6	7	8	9	Score
Number of equally balanced competitors	Small number of equally balanced competitors exist			Mixture of equally balanced competitors			Large number of equally balanced competitors exist			6
Industry growth rate	High growth rate (an abundance of demand)			Medium growth rate			Low growth rate			6
Fixed costs	Low fixed cost allocation per value added			Medium fixed cost allocation per value added			High fixed cost allocation per value added			9
Level of standardization	Mostly customized products and services			Even blend of standard and customized			Highly standardized products and services			5
Buyer's switching costs	High transition costs due to capex, contractual obligations, relationship			Medium transition costs			Low transition costs and easy to switch			6
Diversity of competitors and of competitors' products and services	High diversity; few products and services compete directly			Medium diversity; some products and services compete directly			Low diversity; most products and services compete directly			8
Strategic stakes	Potential for significant rewards is low – strategic stakes are low			Potential for significant rewards is well balanced			High potential for significant rewards – the strategic stakes are high			8
							Overall Score			7

Porter's Five Forces Example: Downhole Drilling

Bargaining Power of Suppliers (Tier II)

The bargaining power of the suppliers is **MEDIUM-HIGH**:

- High crude oil price, increased CAPEX spend and increase in oil & gas production activities has pushed the supplier power to moderate-high, the criticality, complexity, and technology involved in directional drilling are high
- Supplier power has increased, especially since surge of oil prices since start of war, coupled with the consolidation of the equipment market

Threat of New Entrants

The threat of new entrants is **LOW**:

- Barrier to entry is high, due to huge capital expenditure
- Nearly, 80 percent of the directional drilling service cost is incurred by the equipment, which makes the entry of new suppliers difficult
- Capex requirement of oilfield downhole tools is very high with a significant dependency on technology factor

Bargaining Power of Buyers

The bargaining power of the buyers is **MEDIUM**:

- Buyer power currently stands at medium, as the oilfield market currently witness massive equipment shortages and rising tubular goods prices. Most buyers are pursuing strategies to secure supply for projects, to execute their capex plans and boost production, amid high oil prices
- Complexity of equipment and service, the value it adds to the buyer in decision making makes the buyer to rely on major suppliers

Rivalry Among Existing Firms

There is **HIGH** rivalry among existing firms:

- Competition among suppliers is very high, as securing good market share and new contracts is essential in surviving the cost intensive industry
- Buyers prefer suppliers with reliability, efficiency, track record in similar formations, and personnel experience. Suppliers with technological capabilities have gained importance and far outweigh the standard price

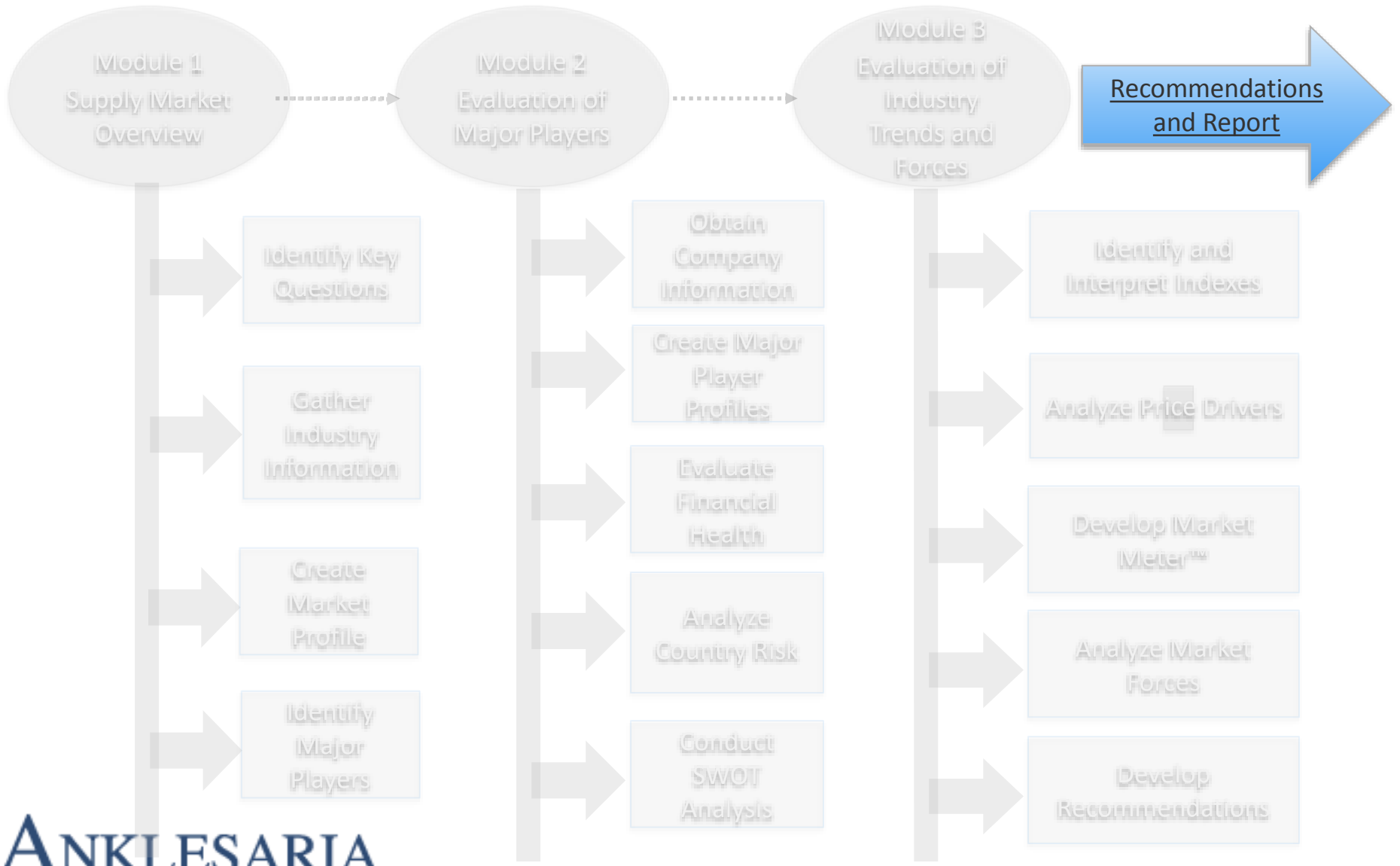
Availability of Substitutes

The availability of substitutes is **LOW**:

- Substitutes are possible, in terms of new type of products or different technology; however, the downhole tools and services as such cannot be replaced, as they are crucial for operations. Hence, the threat of direct substitutes are lower for this category.
- Substitution for current traditional products will come at a higher cost, and the industry is currently facing high-cost inflation, due to shortages and other factors



Supply Market Overview



Characteristics of a good supply market analysis

- Reliable research uses multiple methods to acquire data and refrains from over-reliance on any one source
 - Sources are always listed to ensure that the origins of the information are captured
- A good report connects the dots for the reader and conveys the message in a concise manner
- There should be a good balance in the use of visual media and words for presenting the data and the information
 - Ensure that the content on the slides supports the visual media being used on the slide
- Good research develops innovative ways to solve a problem
 - When data isn't readily available try using proxy when possible

Recommendations

- Take advantage of the supply driver trends – excess capacity, lower utilization
 - Perform cost analysis
 - Lock in prices for the medium term (2-3 years)
- Ensure secured supply
 - Competitively allocate spend among 2-3 suppliers
 - Develop global contracts if possible
- Safeguard against supplier's financial risk
 - Review supplier's financials and SWOT at regular intervals
 - Explore opportunity to develop a new supplier

Organizing the Report – Typical Table of Contents

- Executive Summary
- Supply Market Overview
 - Supply Market Details
 - Major Players in the Supply Market
 - Details of Major Players
- Evaluation of Major Players
 - Financial Health Analysis
 - Country Risk Analysis
 - SWOT Analysis
- Analysis of Market Forces
 - Industry Trends
 - Market Meter™
 - Porter's Five Forces Analysis
- Recommendations
- Appendix
 - Major Players Financial Statements
 - Bibliography

Implementation

- Review material presented in this manual
- Build libraries of data sources for key commodities
- Develop Supply Market Analysis reports
- Store reports in an accessible knowledge base
- Periodically update reports

Recap of Value of Supply Market Analysis

- It is the only way to make effective sourcing decisions.
- It can be used to develop a negotiation strategy.
- It can help build credibility and respect with suppliers.
- It allows for a quicker and more effective knowledge transfer to new teams.
- It demonstrates procurement's value add among members within the organization.