

# OILFIELD SERVICES

## SUPPLIER PERFORMANCE OVERVIEW



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## INTRODUCTION

This report presents the results of in-depth, personal interviews with decision makers with oil & gas operators worldwide who purchase and use oilfield services. The report assesses market share, supplier performance, supplier competitive positioning and buying preferences among the oil & gas operators worldwide.

The report is based on 13,485 performance ratings from 2,837 respondents worldwide and is based on individual interviews with end users in the industry for 2016. The report will be updated in February, 2018 based on interviews conducted during 2017.

A total of 68 product and service lines are evaluated in the report and segmented by five key categories (G&G/Formation Evaluation, Drilling, Completion, Production and Subsea Services).

Each respondent interviewed was pre-qualified for the product category evaluated and the interviews lasted approximately 30 to 45 minutes on average. Geologist, Geophysicists, Drilling Engineers, Drilling Managers, Completion Engineers, Completion Managers, Production Engineers, Production Managers, Operations Managers, Intervention Managers, Subsea Engineers, Subsea Operations and Asset Managers were interviewed for their respective area of responsibility. The interviews were conducted primarily in 2016 and this reports provides a worldwide integrated overview of the findings.

The report is supported with an interactive database that is available for purchase and allows users to perform customized analysis and evaluation by region, customer group or other attributes of the database.

This report was prepared by Kimberlite International Oilfield Research and is intended for the exclusive use of the clients who purchase the report.

## EXECUTIVE SUMMARY

- The four largest oilfield service suppliers (Schlumberger, Halliburton, Baker Hughes and Weatherford) are struggling to differentiate their performance. This is observed in the Value Map and Net Promoter Score ratings when aggregating all 13,485 performance ratings among the 2,837 respondents interviewed across the 68 product/service lines evaluated.
- Closer analysis, however, by product category and geographic region reveals performance differentiation among the four largest oilfield service suppliers. The analysis reveals additional levels of performance differentiation when including the secondary oilfield service suppliers into the evaluation.
- Opportunities exist for oilfield service suppliers to better differentiate their performance and technology. Oil and gas operators need to perform proper due diligence to identify best value suppliers.
- Among the four major oilfield service suppliers, Schlumberger is competitively positioned as the premium based supplier (“cost more but worth it”) and exhibits the highest level of performance consistency. Schlumberger exhibits competitive strengths in all of the geographic regions evaluated with the exception of Latin America and to a lesser degree the North Sea.
- Halliburton’s overall competitive positioning reveals strengths in hydraulic fracturing and competitive weaknesses in G&G software, formation evaluation and production related services. Geographically, Halliburton exhibits competitive strengths in the North Sea and needs to further strengthen performance based value proposition in the US land market to substantiate premium pricing.
- Baker Hughes exhibits competitive strengths in drilling services, fluids and formation evaluation and geographically in the Gulf of Mexico, Latin America and US land. Baker Hughes exhibits competitive weaknesses in hydraulic fracturing and artificial lift.
- Weatherford is competitively positioned as the low cost supplier and value based alternative to the big 3 oilfield service suppliers. Weatherford exhibits competitive strengths in mud logging, coring analysis, surface wellheads and artificial lift.

## Product & Service Lines Evaluated

68 product and service lines are evaluated in the report and segmented by 5 major product categories (G&G/Formation Evaluation, Drilling, Completions, Production and Subsea).

The product and service lines evaluated in the report are shown below and segmented by their respective product categories.

### Drilling Equipment & Services

- Mud Motors
- MWD
- Rotary Steerable Systems
- Fixed Cutter Drill Bits
- Roller Cone Drill Bits
- Oil Based Drilling Fluids
- Water Based Drilling Fluids
- Cementing Services
- Cementing Tools
- Casing & Tubular Running Services
- Liner Hangers
- Surface Wellheads
- Annular BOPs (Land and Offshore)
- Ram BOPs (Land and Offshore)
- BOP Control Systems (Land and Offshore)
- Land Top Drives
- Land Mud Pumps
- Land Drawworks
- Offshore Drilling Risers

### Completion Equipment & Services

- Packers (Mechanical, Inflatable & Swellables)
- Conventional & Dissolvable Plugs
- Sliding Sleeves
- Subsurface Safety Valves
- Sand Control Screens
- Sand Control Tools
- Sand Control Pumping Services
- Permanent Downhole Monitoring
- Intelligent Completions
- Hydraulic Fracturing Services
- Frac Trees

### G&G/Formation Evaluation/ Seismic

- Wireline Logging
- LWD
- Mud/ Surface Logging
- Downhole Coring & Analysis
- G&G Software
- Seismic Acquisition & Data Licensing
- Seismic Data Processing

**Production Equipment & Services**

- ESP
- Rod Lift Systems
  - Surface Units
  - Sucker Rods
  - Downhole Pumps
- Gas Lift
- Plunger Lift
- Progressing Cavity Pumps
- E-Line Intervention (Conveyance & Tools)
- Coiled Tubing Intervention (Conveyance & Tools)
- Downhole Tractors
- Acid Stimulation
- Production Chemicals

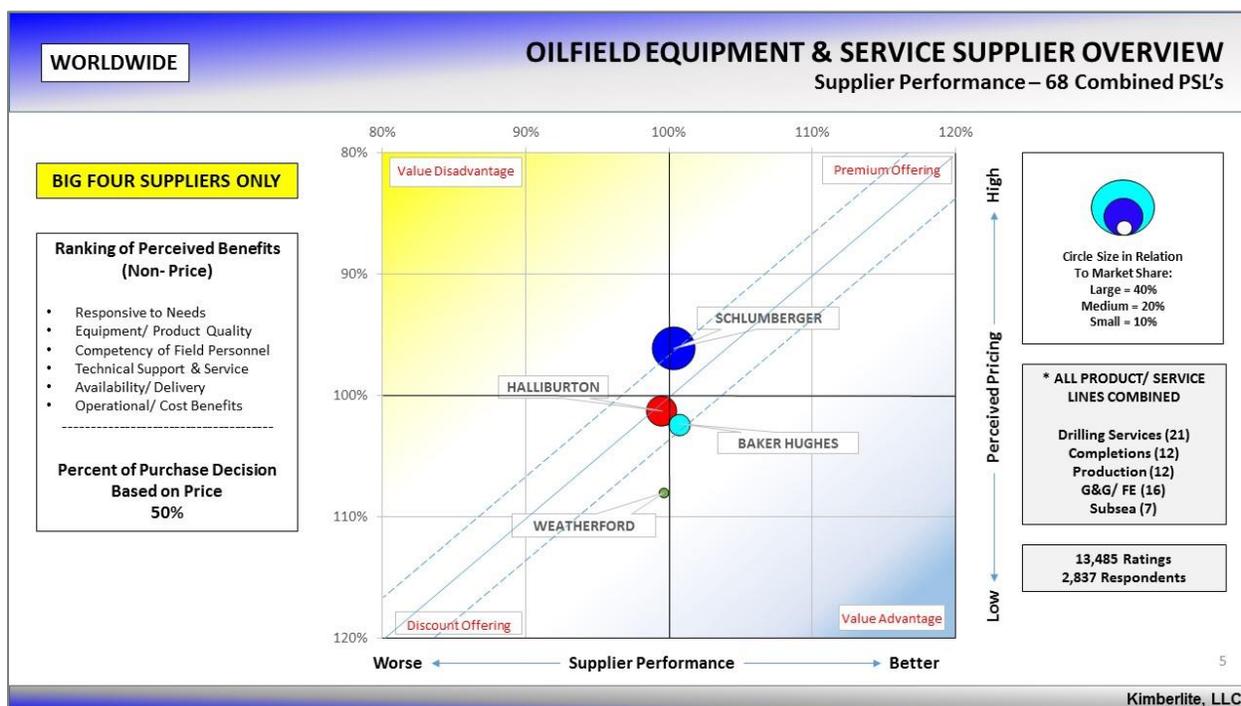
**Subsea Life of Field Services**

- Subsea Equipment Repair & Maintenance
- ROV Services
- IWOCs
- Subsea Test Trees
- Spanner Joint Assemblies
- Subsea Multiphase Flowmeters
- Subsea Equipment Monitoring Hardware

## ANALYSIS OF FINDINGS

### Worldwide Supplier Performance Overview

The overall competitive positioning of the world's four largest integrated oilfield service companies (Schlumberger, Halliburton, Baker Hughes and Weatherford) is shown in the Value Map below and based on the aggregation of 13,485 performance ratings from 2,837 respondents worldwide representing 68 oilfield product and service lines.



Evaluating each suppliers overall performance relative to the respective cost for the supplier services is important to track and measure. This analysis is reflected in the Value Map which is a visual picture of the relative competitive positioning of each supplier. Supplier performance is plotted on the X-axis and supplier pricing is plotted on the Y-axis. The “fair value line” is shown diagonally across the Value Map and its slope reflects the relative weights customers place on costs and benefits.

The Value Map illustrates the tradeoffs customers are willing to make to obtain more benefits and/or to obtain lower pricing from a given offering. In effect, the “fair value line” represents the market positioning at which a supplier would neither gain nor lose market share. The area to the top and to the left of the “fair value line” represents a market positioning where the cost exceed the value delivered and any supplier positioned in this area of the Value Map is

vulnerable to losing market share. The area below the “fair value line” and to the far right represents a value advantaged market positioning and any supplier positioned in this area of the Value Map is poised to gain market share and exhibits an opportunity to extract additional value or pricing from the market in exchange for their performance. Understanding the positioning of your offering relative to the competitors is essential in being able to formulate a strategy and implementing a plan to profitably and sustainably grow.

Overall, the Value Map reveals that on average and in aggregate the four largest integrated oilfield service suppliers are struggling to differentiate their performance as evidenced by the similar spatial positioning on the “X” axis.

Schlumberger leads the market as the higher cost provider (charging above market average prices) with the expectation and market perception that they “cost more but worth it” via delivering superior performance.

Halliburton and Baker Hughes are very similarly positioned in terms of performance versus pricing and Weatherford is positioned as the low cost supplier.

As the oil and gas industry begins to recover in 2017 and oilfield service suppliers resume hiring to meet increasing demand, seeking value during the industry rebound becomes an area of focus.

All too often, oil and gas operators (particularly National Oil Companies) view oilfield service supplier’s performance and technology as a commodity. Certainly the Value Map above helps to support such a view when aggregating all of the 13,000 + performance ratings worldwide.

Oilfield service suppliers need to better differentiate their overall performance and value delivered to the oil and gas operators. In turn, the oil and gas operators need to conduct proper due diligence to identify best value.

The report that follows highlights distinct performance differentials among the oilfield service suppliers by geographic region, product category and individual product/service line. However, as evidenced above in the Value Map, without proper due diligence it is reasonable to understand why some oil and gas operators view oilfield service supplier’s performance and technology as a commodity.

### **Worldwide Supplier Customer Loyalty**

The Net Promoter Score is a widely used industry benchmark and is based on the question “How likely would you be to recommend this company to a friend or colleague” using a scale of 0 to 10 with 10 being highly likely. The Net Promoter Score is calculated by subtracting the percentage of Promoters (ratings of 9 or 10) from the percentage of Detractors (ratings of 6 or lower). Net Promoters are customers that exhibit strong customer loyalty and are more inclined to forgive a supplier for making a mistake and is more willing to try new offerings from the supplier. Net Detractors are much less willing to repurchase from a supplier and often serves as a detriment to the supplier by sharing their disappointment in the supplier’s performance with others in the industry. Consequently, the Net Promoter Score is a good benchmark to track and monitor over time and correlate to business performance.

The Net Promoter Score is a good metric that correlates to customer loyalty, supplier performance and supplier financials.

The table below highlights the Net Promoter Score ratings among the four largest integrated oilfield service companies when aggregating all 13,000 + performance ratings for the 68 product and service lines evaluated.

<b>NET PROMOTER SCORE - WORLDWIDE - ALL CATEGORIES COMBINED</b>					
	# Responses	Promoter (9-10)	Passive (7-8)	Detractor (6 or Lower)	NPS
Weatherford	833	34%	49%	17%	17.4%
Baker Hughes	1,970	32%	53%	15%	16.9%
Schlumberger	3,246	28%	60%	12%	16.3%
Halliburton	1,937	30%	56%	14%	16.3%
<b>Worldwide Category Average +17.8% (13,485 Ratings)</b>					

The category average Net Promoter Score for all 68 product and service lines evaluated in the oilfield and based on 13,485 ratings is 17.8% and provides a good overall benchmark for the oilfield services industry.

The Net Promoter Scores among the big four oilfield service suppliers when aggregated on a worldwide basis are largely undifferentiated reflecting a similar observation as seen in the Value Map above. Again, this poses a problem for the major oilfield service suppliers in that they are not able to properly differentiate their performance in the eyes of the end users when viewed in aggregate.

However, when analyzing the Net Promoter Scores by product category and by geographic region, performance differences are observed. In some cases, US land for example, the three largest oilfield service suppliers (Schlumberger, Halliburton and Baker Hughes) are all underperforming the regional average because the secondary oilfield service suppliers are viewed by the US land oil & gas operators as performing better.

The table below highlights the performance differentiation observed among the four major oilfield service suppliers by product category and region.

<b>BY CATEGORY</b>					
	Category Average	HAL	SLB	BHI	WFT
All Categories Combined	17.8%	16.3%	16.3%	16.9%	17.4%
Drilling Equipment & Services	14.9%	17%	17%	18%	4%
Completion Equipment & Services	20.1%	25%	16%	15%	12%
Production Equipment & Services	28.5%	5%	25%	12%	34%
G&G Software	2.7%	-10%	4%	-	-
Formation Evaluation	27.3%	16%	23%	22%	35%
Subsea	11.1%	4%	21%	-	-

<b>BY REGION</b>					
	Category Average	HAL	BHI	SLB	WFT
Total Land	20.3%	15%	16%	18%	20%
Total Offshore	12.1%	17%	16%	14%	6%
US Land	22.7%	14%	16%	20%	26%
GoM	22.1%	17%	34%	26%	-3%
Canada	19.2%	-2%	3%	13%	21%
Latin America	29.7%	29%	40%	35%	34%
North Sea/ Europe	10.1%	17%	15%	7%	15%
Africa	1.1%	-3%	-3%	6%	-3%
Middle East/ Egypt	6.5%	10%	6%	10%	-7%
Asia Pacific	8.1%	16%	9%	16%	3%

Performance differentiation is observed when analyzing customer loyalty by region and product category. For example, Schlumberger's customer loyalty as measured by the Net Promoter Score is above industry average for many geographic regions evaluated and for two product categories (subsea and drilling equipment & services). Each of the major oilfield service

supplier's exhibit areas of competitive strengths and weaknesses when evaluating more closely by region and product category as illustrated in the table above.

### **Performance Factors with Greatest Impact on Customer Loyalty and Supplier Use**

The performance factors that exhibit the highest statistical correlation to the likelihood to recommend and use a supplier for oilfield services overall worldwide is responsiveness to needs followed by technical service & support, competency of field personnel and equipment quality/reliability. The performance factors that have the greatest influence and highest statistical correlation to the likelihood to recommend and use a supplier for oilfield services does vary geographically and among various customer groups. This highlights the need for suppliers to conduct customized analysis by critical market segments to identify which performance factors have the greatest impact on end user willingness to recommend and use a supplier.

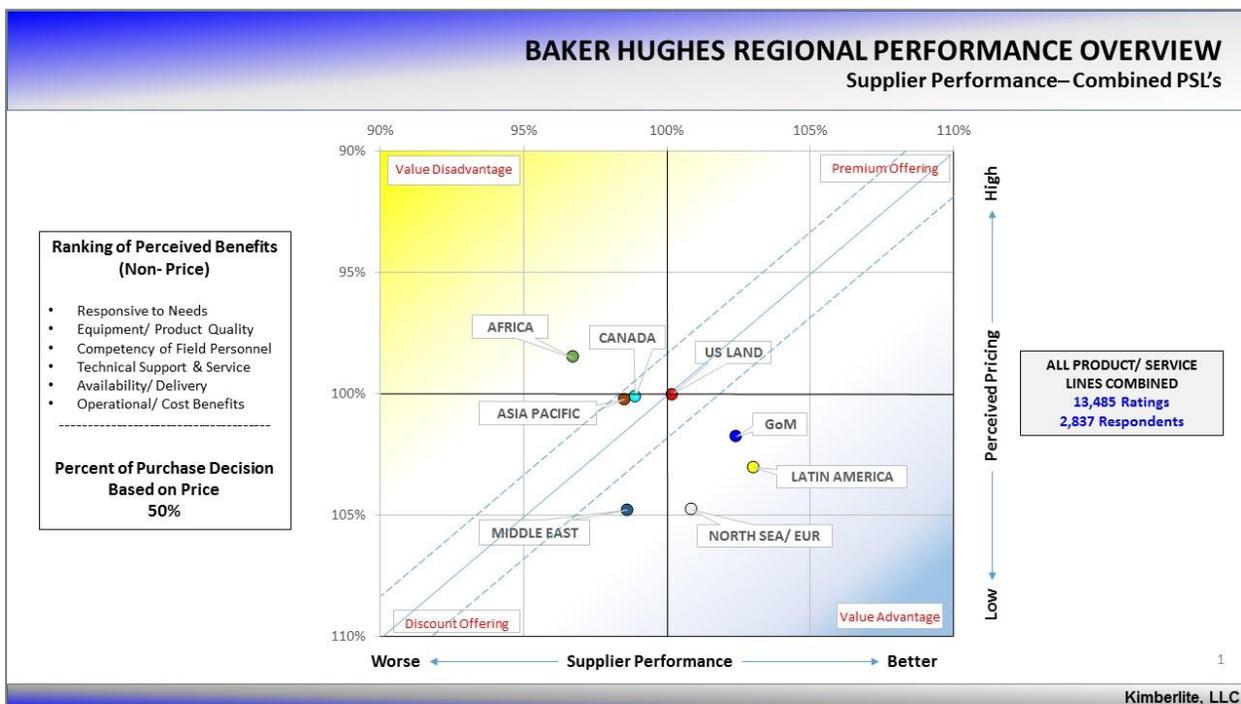
<b>CORRELATION TO "LIKELY TO RECOMMEND" - WORLDWIDE</b>							
	<i>Total Sample</i>	<i>US Land</i>	<i>International</i>	<i>Majors</i>	<i>Large Ind</i>	<i>Med/Small Ind</i>	<i>NOC</i>
Responsive to Needs	0.59	0.62	0.58	0.58	0.59	0.58	0.58
Technical Support & Service	0.58	0.60	0.56	0.52	0.57	0.58	0.58
Competency of Field Personnel	0.56	0.60	0.54	0.50	0.55	0.59	0.56
Quality/ Reliability	0.56	0.58	0.53	0.53	0.55	0.57	0.56
Cost or Time Saving Benefits	0.55	0.57	0.53	0.51	0.56	0.54	0.56
Availability/ Delivery	0.47	0.49	0.52	0.48	0.41	0.48	0.55
Price Competitiveness	0.42	0.45	0.39	0.38	0.40	0.42	0.40

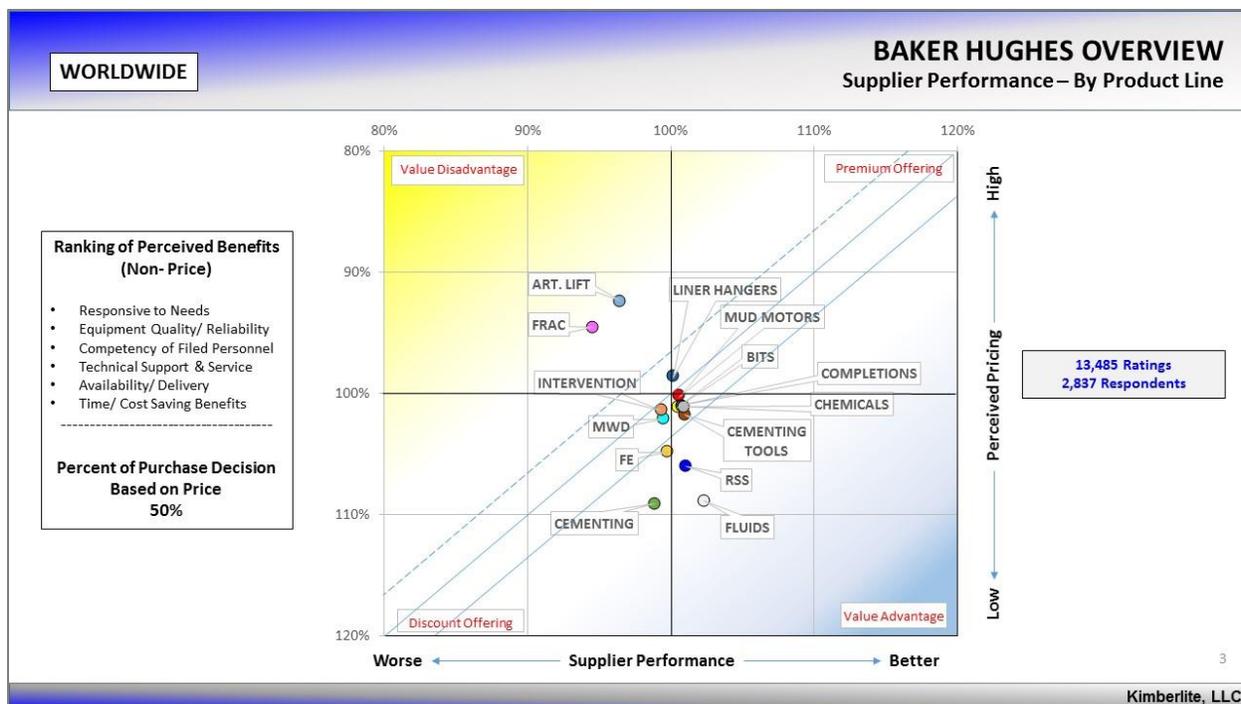
### **Baker Hughes Supplier Performance Overview**

Baker Hughes performance overall versus the other major oilfield service suppliers is advantaged regionally in Latin America, Gulf of Mexico, US land and North Sea. Baker Hughes performance and competitive positioning is disadvantaged regionally in Africa, Asia Pacific, Canada and Middle East.

Baker Hughes overall exhibits performance strengths in the areas of drilling services, fluids, chemicals, formation evaluation and completions. While regional performance by product category or product/service line may vary, the Value Maps above depict Baker Hughes competitive positioning overall on a global basis and across their enterprise portfolio offering.

Baker Hughes competitive performance and positioning for artificial lift and hydraulic fracturing has declined exposing vulnerabilities in their enterprise portfolio. Baker Hughes has responded recently to these realizations by selling a majority interest in their hydraulic fracturing business to a joint venture company that will market under the BJ Services brand.





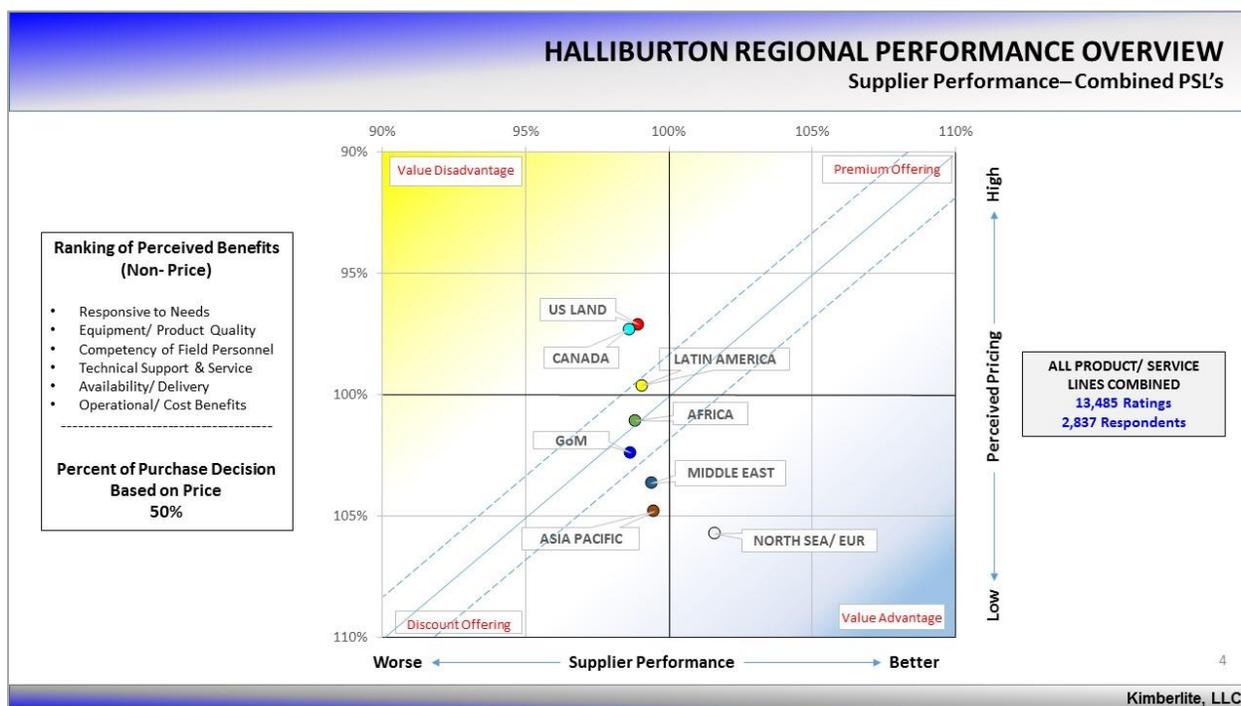
The majority of Baker Hughes product and service lines evaluated are viewed as delivering industry average levels of performance and an acceptable level of value (pricing versus performance). Baker Hughes rotary steerable systems are viewed favorably in the market and observed to be an area in which Baker Hughes is delivering significant value to the end users. Although Baker Hughes drilling fluids business is not as large as Schlumberger and Halliburton, the value they deliver to their customers is significant relative to competing alternatives. Again, keep in mind that regional performance differences do exist by individual product/service line and the analysis in this report is assessing Baker Hughes performance on a global perspective.

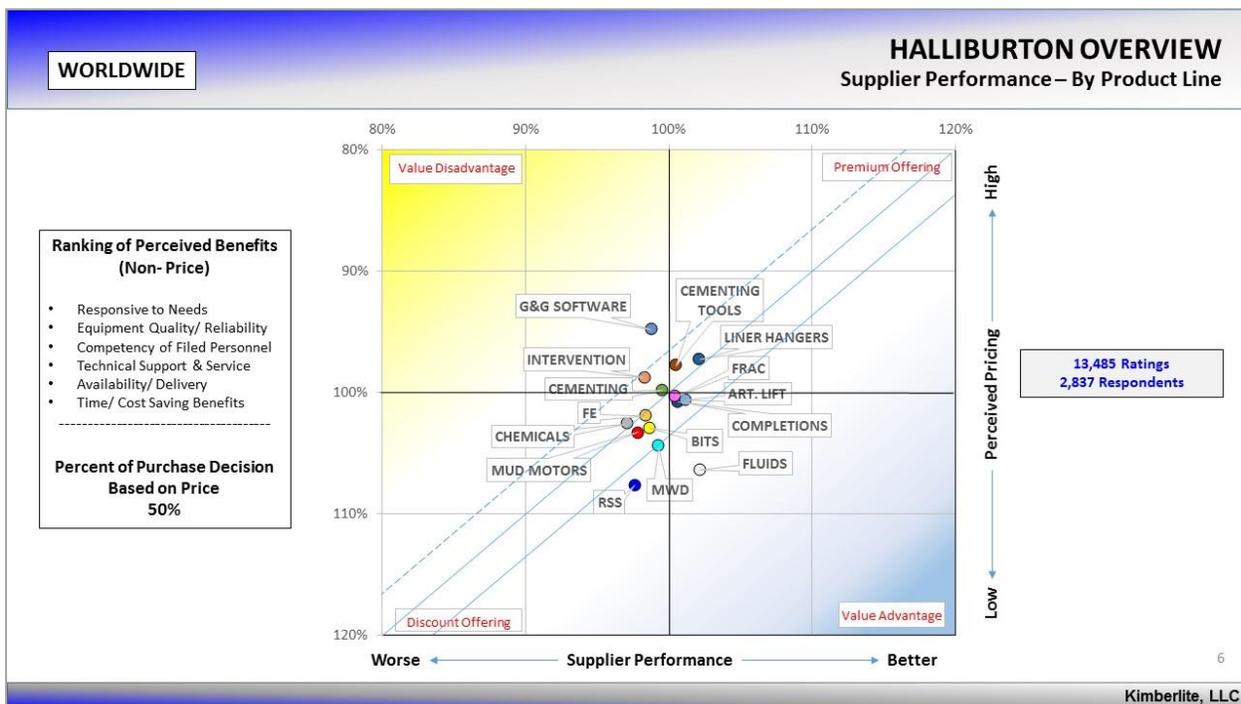
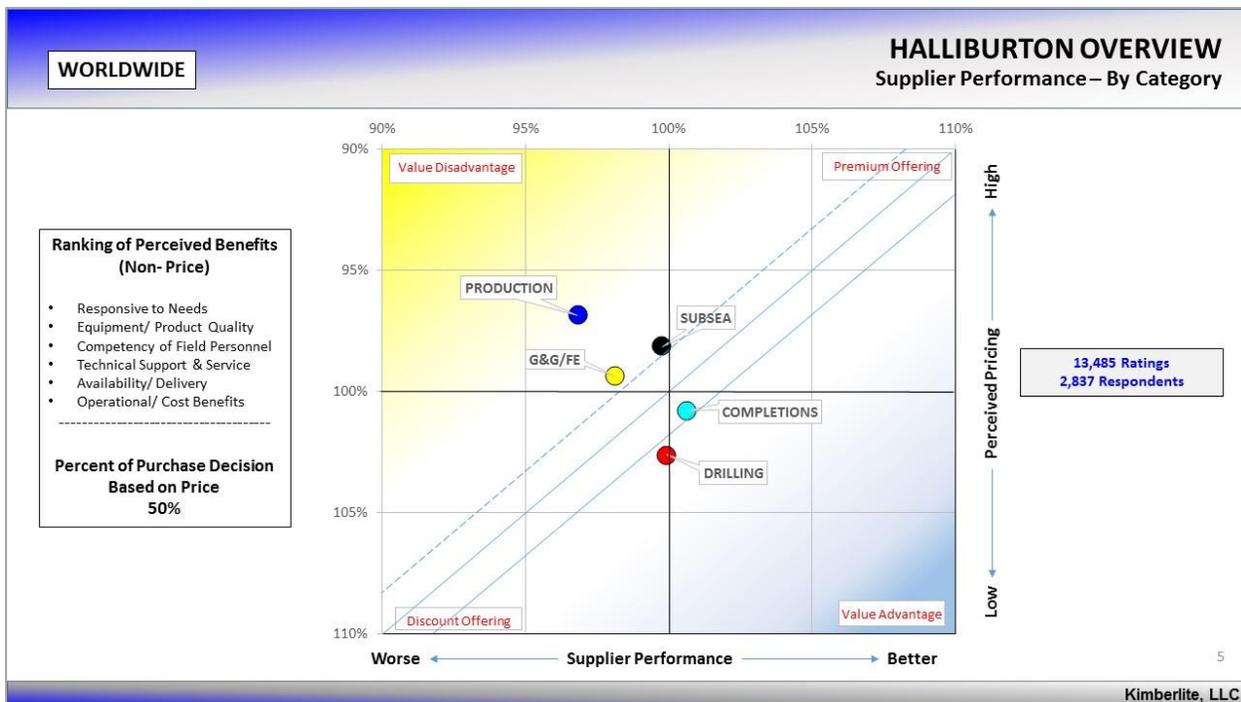
In summary, Baker Hughes needs to improve their performance in the areas of artificial lift and hydraulic fracturing and is undervaluing their rotary steerable, fluids and international cementing business product lines and should better leverage these competitive strengths to win additional business and pull through other services.

### Halliburton Supplier Performance Overview

Halliburton’s performance versus the other major oilfield service suppliers is advantaged regionally in the North Sea. The other geographic regions evaluated reveal that Halliburton’s overall performance is below the industry average when compared to that of Schlumberger and Baker Hughes. Halliburton, however, is viewed as delivering an acceptable level of value when assessing overall performance versus pricing with the exception of US land and Canada where Halliburton needs to improve performance differentiation to substantiate the higher pricing.

Halliburton exhibits performance strength in the area of completions relative to that of Schlumberger, Baker Hughes and Weatherford. Halliburton’s performance in G&G software and production related services are the most competitively vulnerable within the Halliburton portfolio. Although Halliburton’s drilling services and formation evaluation are viewed as performing below industry average indices, Halliburton’s competitive positioning falls within the fair value zone in terms of pricing and performance. Halliburton’s subsea offerings are limited primarily to subsea test trees but Halliburton’s penetration of the market is growing and overall performance is competitive.



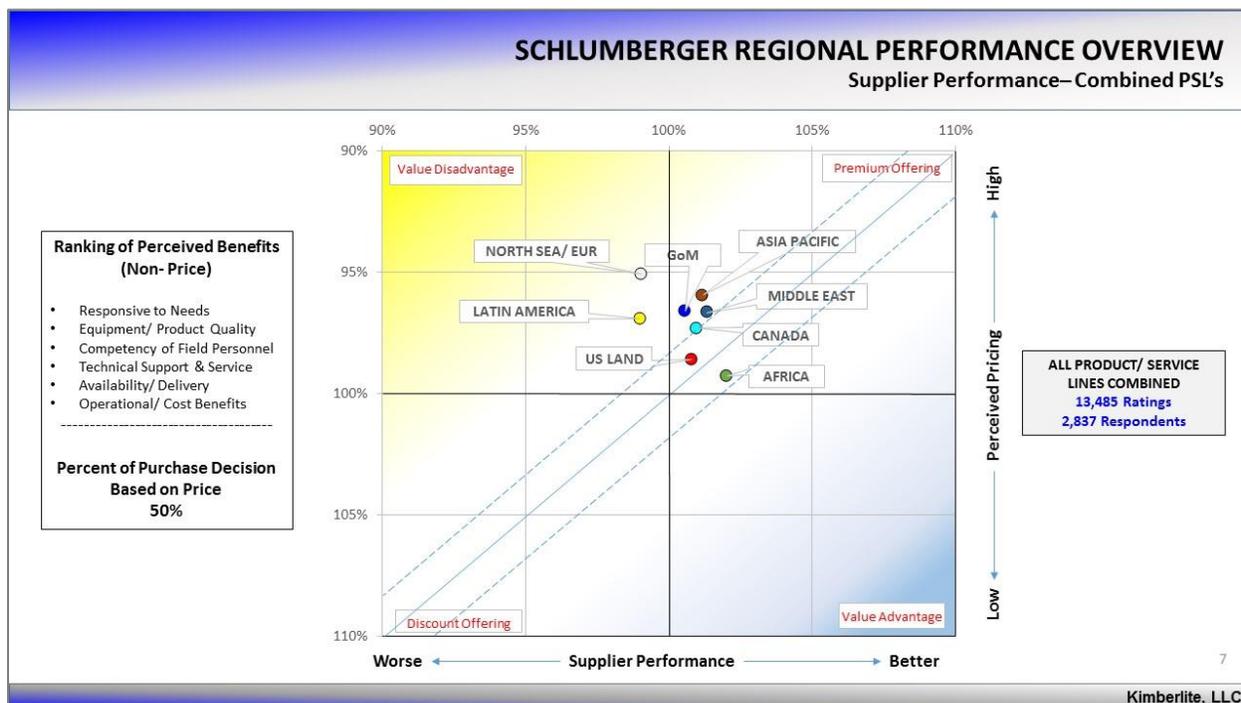


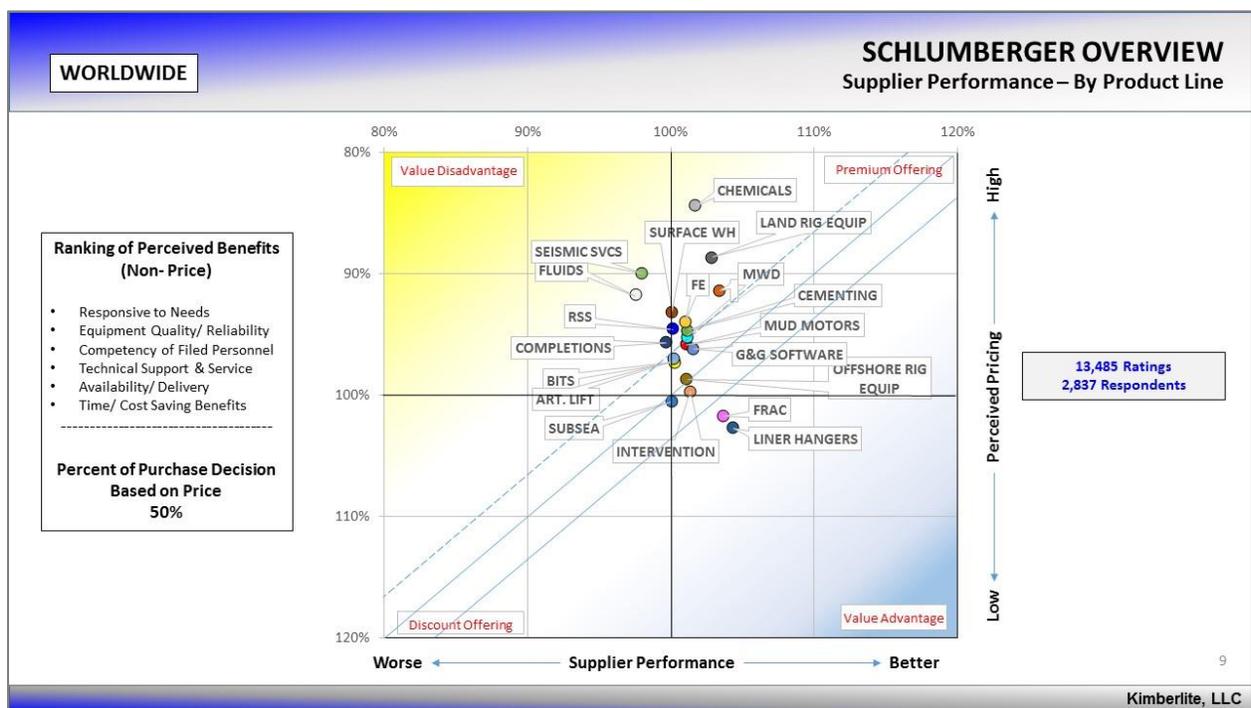
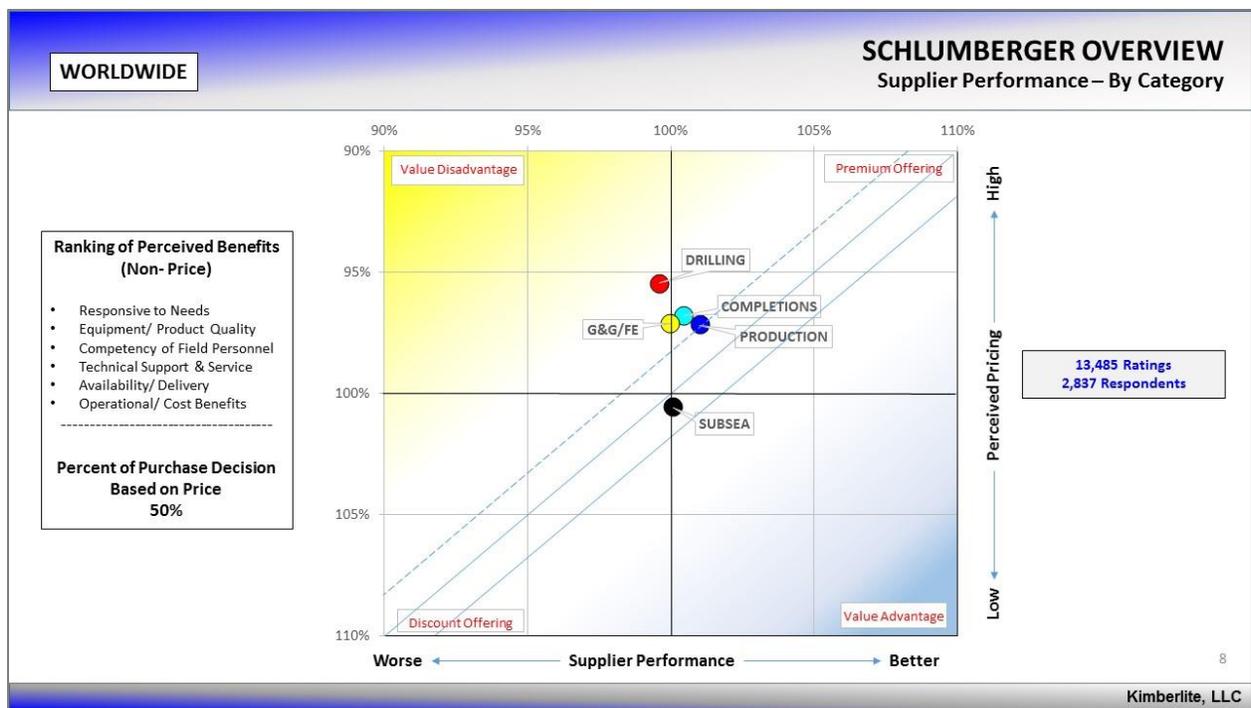
Assessing the individual product lines more closely reveals that many of Halliburton’s product lines are competitively positioned below industry average performance levels (as evidenced by the spatial positioning to the left of the industry average midpoint on the “X” axis). However, as noted above, Halliburton is viewed as delivering an acceptable overall value with respect to performance and pricing with the sole exception of G&G software which is Halliburton’s weakest offering competitively relative to other supplier options and in particular to that of Schlumberger and Paradigm.

Hydraulic fracturing is competitively positioned as one of Halliburton’s stronger product lines within the overall portfolio along with liner hangers. Halliburton would benefit by improving overall performance and repositioning their portfolio of offerings into the “costs more but worth it” quadrant (“premium offering”) particularly in the US land market.

**Schlumberger Supplier Performance Overview**

Schlumberger’s performance versus the other major oilfield service suppliers is advantaged regionally in all of the geographic regions evaluated with the exception of Latin America and North Sea. In addition, Schlumberger is distinctively positioned as a premium based supplier that “costs more but worth it” as evidenced in the Value Map below.





Analyzing Schlumberger's performance by product category reveals Schlumberger's challenge in being able to differentiate their performance to substantiate the higher pricing. The subsea category, however, is an exception in which Schlumberger is delivering strong value to the end users versus that of the other subsea service suppliers.

Assessing the individual product and service lines more closely reveals that Schlumberger delivers the highest level of performance consistency among their portfolio offering versus the other major oilfield service suppliers as evidenced by the tight cluster pattern of the various product and service lines evaluated.

In addition, the majority of Schlumberger's product and service line's is viewed as delivering above industry average performance or equal to industry average performance as noted by the spatial positioning of the PSL's generally to the right side of the midpoint on the "X" axis. This competitive positioning of Schlumberger's portfolio helps support their overall market image as being a premium based supplier ("costs more but worth it"). However, Schlumberger needs to further improve their performance differentiation (move further to right on the "X" axis) to better support and substantiate their value proposition as a premium based supplier.

Schlumberger's competitive positioning is most vulnerable in the areas of seismic services, drilling fluids, production chemicals and completions. Schlumberger will benefit from continuing to improve and differentiate their performance to support their plans to increase prices to return to levels of normal profitability.

### **Weatherford Supplier Performance Overview**

Weatherford's performance and competitive positioning versus the other major oilfield service suppliers is distinguished as being the low cost, value based supplier.

Weatherford's competitive positioning is strongest in the areas of mud logging, coring analysis, surface wellheads and production related services including artificial lift. Regionally, Weatherford's performance is strongest in North America. While Weatherford's performance may not always be industry leading, Weatherford's overall value (price versus performance) competitively positions them as the low cost supplier and value based alternative to the more expensive Schlumberger, Halliburton and Baker Hughes.

