

# Industry and competitor analysis of schlumberger



An oilfield services company provides the infrastructure, equipment, intellectual property and services needed by the international oil and gas industry to explore for, extract, and transport crude oil and natural gas from the earth to the refinery, and eventually to the consumer. (Wikinvest, n. d.)

Schlumberger Limited is no exception to these parameters supplying technology, information solutions and integrated project management that optimize reservoir performance for customers working in the oil and gas industry. (Schlumberger, Background, 2011).

Today, the company employs more than 113, 000 people of over 140 nationalities working in approximately 85 countries. The company's revenue reached \$39. 54 billion in 2011, reflecting that market conditions were positive, driven by improved worldwide activity. (Schlumberger Ltd, 2011)

Schlumberger being a leading oil field service provider in Middle East has to keep a constant tab on its existing competitors and the new entrants to the oil field services industry. Given the industry context mentioned above, the main aim of this business report is to analyze the competitors and the relative market conditions to understand the macro-economic variables of the industry, as outlined below.

The company does have a competitive advantage over other firms but no competitive advantage is permanent. This report will provide insights into the speed with which the competitors are able to acquire the skills needed to duplicate the benefits of Schlumberger's value-creating strategy and also determine how long this competitive advantage will last. (Ireland, Hoskinsson and Hitt, 2011).

The initial analysis of the report would focus on the qualitative aspects of the industry. Industry strategic frameworks would be used to depict the conditions prevailing in the global oil field service industry. The oilfield services (OFS) industry faces a lot of economic, technical, geographic and operational challenges (Painter and Grandjean, 2009). Thus an analysis to investigate the business environment and the factors affecting the industry would be carried out through an appropriate framework.

In order to run a successful business, the company should have a competitive advantage in the market. This would be analyzed through desired models, which will identify the sources of competitive forces Schlumberger would face in the market.

The later part of the analysis would focus on the strategic approach of Schlumberger and positioning of the company in the market with regards to its competitors. The strategic approach and the market position would be through a thorough analysis of the competitors and how successful they are in implementing those strategies.

In addition to that the Strategic approach will also focus on the General and the Industry environment affecting the company within the UAE market.

The objective of the report is to ensure that Schlumberger is aware of the changes going on in the external environment in the Middle East effecting its ongoing strategies and business plans and also to keep a tap on its competitor's new strategies and the advancements they are making. It is also to ensure that their current strategies are in line with the business

environment and if not, what changes can be brought it in order to keep it at par with the other competitors within the industry.

The final outcome of the project will assist Schlumberger not only in maintaining their strong position within the industry, but will also help them in forecasting the changes in advance and develop their business plans accordingly.

## Chapter 2: Literature Review:

### Porter five forces Model:

To have known about the industry, we need to analyze as to how a company can sustain in this competitive market. In order to do that, there are a number of strategic analysis frameworks and this section will help us to know the appropriate framework for analysis. To do a strategic analysis at an industry level, we have different frameworks such as SCP Paradigm, Porter five forces model and Value Net model.

The Structure Control Performance paradigm is one of the frameworks which is used to analyze the industry and provide a detailed view of the industry. This framework which is derived from the Industrial Organization (IO) economics studies the market based on the three elements and also interprets the relations between them. (Fu, 2003). Mason (1939, 1949) and (Bain, 1951, 1956, 1959) as cited in (Goddard, 2005) had developed the SCP paradigm. It defines the relationship between the market structure, company conduct and company performance (Ajlouni, 2010). ' According to this approach, the structure of a market influences the conduct of the firms

operating the market, which in turn influences the performance of those firms. (Goddard, 2005).

Thus the SCP paradigm analyses the industry in three steps. First, the structure analyses the number and size distribution of buyers and sellers, barriers to entry, product differentiation, vertical integration and diversification. (This would be discussed later in the chapter). Second, the conduct describes the behavior of the firms through business objectives, pricing policies, research and development, collusion and merger. (This would be discussed later in another chapter). The third, performance describes the parameters for the performance of the industry through profitability, growth and allocative efficiency. (This would be discussed later in the chapter).

The SCP Paradigm was based mainly on empirical research than on theoretical aspect and it was one of the dominant models till the early 1980s. (Slade, 2003). Thus there were many criticisms about the model about the importance of the three factors in the model and the empirical researches done on this paradigm. One of the main problems for the managers in the later years was to analyze each parameter for the three factors in the paradigm and it was a long process considering all the factors in the industry. To respond to these criticisms, Schmalensee, 1990 came up with a New Industrial Organization (NIO) where theories were based on strategy and conduct. Game theory was one of the theories and it was a decision making theory where firms do not have to depend on the various factors prevailing in the industry but have a choice from a number of various strategies. Many economists did go against this concept and raised many

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

criticisms. (Goddard, 2005). Then in the further growth of the Industrial Organization, Porter's model was introduced.

One of the well-known and an important framework is Porter Five Forces Model. Porter's five forces is heavily influenced by the SCP Paradigm as we the ' Structure' part of the paradigm is basically the Porter Five Forces model and the other performance is outcome of Porter's model which is the profitability. (Goddard, 2005). Micheal E. Porter in 1979 developed this model which attempts to handle the main forces which affect the industry structure. Porter five forces model tries to explain the industry structure and the competitive conditions by evaluating the following forces: the risk of new entry in the industry, the degree of rivalry among established competitors, the bargaining power of buyers and suppliers, and the threat of substitute products. According to Porter, stronger the forces of the model, the business environment of the industry seems to be more challenging and is less attractive to the investors; whereas if the forces are weak, the companies seem to be profitable as there would be less competition in the industry.

According to Kevin Coyne and Somu Subramanian in 1996, this model is built under three essential assumptions: First, the buyers, suppliers, substitutes and competitors are not related and do not interact with each other in the industry. Second, capital will increase to companies that have a structural advantage over the competitors and potential entrants which is true in the oilfield service industry. Third, uncertainty is low which lets the companies in the market to plan properly and prepare a strategy accordingly. (The McKinsey Quarterly, 2001).

Also according to Mintzberg(1994), Porter assumes that future of the industry can be forecast based on the current climatic conditions in the business environment. And he discards this assumption by explaining that technological innovations in the industry make the forecast practically impossible.

Every model has its limitations and criticisms and Porter Five forces model is no exception to it. The limitations are: First, the model was based originally on the economic situation in the eighties with its strong competition and relatively stable market structures. It focuses externally (though value chain has an internal focus) and assumes stable and identifiable markets. Second, it is not able to take into account new business models and the dynamism of the industries, such as technological innovations and dynamic market entrants from start-ups that will completely change business models within short times. Third, Porter only considers the industrial factors where as it ignores the firm resources available to the industry which are the primary determinants of the profitability of the industry. Resources transform a short-run competitive advantage into a sustained competitive advantage as they are valuable, rare, in-imitable and non-substitutable. Finally the fourth, as and when the companies expand, they diversify themselves into various other markets and other regions. The model does not consider these factors while analyzing the industry.

Brandenberger and Nalebuff in 1985 too identified an important flaw in the Porter model. In their book Coopetition(Competition + Co-operation), they discuss that there may be positive and negative firm interactions while the positive interactions the model tends to ignore. This means that the model

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

ignores the strategic alliance between industries which help each other to bring out a finalized product. These are mainly known as complementors in business terms. Thus Brandenberger and Nalebuff in addition to suppliers, consumers and competitors introduced a new force namely the complementors. Thus they introduced a concept of " Value Net" which is an extension to the Porter's five forces model and this model was known as the Value Net model. Porter's five forces analysis threats to profits whereas Value Net model analysis threats and opportunities available to the industry. (Industry Analysis, n. d.)

' Porter concedes that developing a strategy in a new emerging industry or in a business undergoing revolutionary technological change is a daunting proposition'. (Downes and Mui, 1998). According to Downes and Mui, Porter explains that this new digitalized and technology related world, developing a strategy is a tough task and this does not mean that the old rules are invalid. But if we look around in today's environment, every industry is need of technology or makes use of technology. Thus Downes and Mui introduced three new forces to the Porter five forces model namely Digitalization, Globalization and Deregulation. (Downes and Mui, 1998). These forces are the forces which drive the current era of business and mainly Digitalization. Thus Porter's framework's main problem which has been identified in this era of business is the digitalization where industries are getting redesigned with technology at a much faster pace than it used to earlier and the sustaining competitive advantage over other firms is diminishing due to technology.



Though in the above discussion, it seems that Porter five forces seems obsolete as it does not consider digitalization but if we consider it with its assumptions and limitations, it is one of the important management tool used in any business. The reason for choosing the Porter Five Forces framework was due to the following. This particular model is known to be well tested and it has been under use for more than three decades. In spite of the fact that the model has been criticized for its limitations and assumptions, it is one of the very few models which has been thoroughly analyzed by various scholars. Finally, as it is a widely used framework it is easier for companies and other academicians to clearly interpret about the industry as compared to other models used for the analysis of the industry.

#### Porter's Competitive Framework:

In order to sustain in today's competitive business environment firms must consider the industry under which it operates, focus on its internal assets that affect the firm's performance and determine the capabilities of its rivals. (Ireland, Hoskisson and Hitt, 2011)

Hence, firms are required to maintain focus on their competitors within an industry and carry competitor's analysis by analyzing the strategy of its direct competitors who have the capability of offering similar product and indirect competitors who can offer products that can substitute the products of the firm (Substitute Competitors).

According to Grahm, L (2005), ' A knowledge of competitive dynamics is generally regarded as an essential starting point for successful strategy formulation'.

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

Thus there are different strategic frameworks available which would be helpful to do a competitor analysis. The most prominent frameworks available are Porter's Competitive Framework and SWOT analysis. Porter's Competitive Framework is a framework which is used to analyze the industry on four elements namely: future goals, current strategy, assumptions and capabilities where future goals discusses what drives the competitor, current strategy discusses what a competitor is doing or can do, assumptions discusses the assumptions held by the firm about itself and the industry and capabilities discusses strengths and weaknesses. (Porter, 1980). This is one of the prominent frameworks but a lot of researches had postulated their ideas on competitor analysis which is discussed below.

A lot of scholars have defined what a competitor's analysis is but the most difficult part is the evaluation of the competitor at a firm level. (Tsai, Su and Chen, 2011). A number of studies have been conducted on how a competitor could be analyzed at a firm level. Porac et al, 1995 presented a cognitive model which is developed where the firm observes its competitor's actions and reactions and then decide on its strategy. Also, Baum and Lant (2003) illustrate that resemblance in geographic location, price, and size are sufficient for a firm to have an idea of their competitors. Also Chen in 1996 gave a different prospective of competitor saying that a competitor analysis was mainly based on market commonality and resource similarity. But many researchers found the two-firm concept to be difficult to relate with the competitor analysis.

Competitor's analysis is necessary for every company because there may be certain gaps which the company might not foresee while making competitive

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

decisions. Zajac and Bazerman(1991) did discuss the relation between the strategic decision making competitive analysis and named the gap between them as ' competitive blind spots'. They discussed how a wrong assumption by a firm about its competitor may result in blind spots. Rothschild, 1979 too discussed on where the companies many miss the link while competitors and what are the questions to be posed for a proper competitor analysis. (Tsai, Su and Chen, 2011) gave a different prospective the competitor analysis by introducing the concept of ' competitor acumen'. It illustrated the relationship between the firms in the industry and also understand the extent to which a firm can understand its competitor.

Every researcher mentioned above has challenged the Porter's framework but none of these have the same prominence as Porter's framework. But there is a challenge which the framework faces. Porter does discuss that when a competitor analysis is done, a firm should know both its direct (current) and indirect (emerging) competitors. However, it does not discuss whether a firm should consider all its competitors, only the top three or four or just a bunch of them. Thus the firm has to analyze the industry first, identify its competitors and then go for competitor analysis.

The SWOT analysis is Strength, Weakness, Opportunity and Threats which discusses the firm's advantage in comparison to other competitors in the marketplace. SWOT analysis has a lot of advantages like it is a simple framework, helps a firm to improve its focus and can be applied to many intelligence reports like market intelligence. The analysis has a drawback as well where it can be too private and disconnected from the realities that are impacting the company. (Evans).

Since Strength and Weakness part is been covered in the Capabilities part of the Porter's framework and Opportunities and Threats are also discussed. Thus Porter's framework is an important competitor analysis tool despite its limitation.

### Chapter 3: Oilfield Service (OFS) Industry:

#### Background of the Oil Field Service Industry

The current energy sector, where there is an involvement of both the production and sale of energy, comprises of the petroleum (oil and gas industry), electric power, coal, nuclear power and the renewable energy industries. The petroleum industry plays an important role in this sector as oil and gas accounts for a large percentage in world's energy consumption which is around 56%. (BP, 2012). The petroleum industry is mainly classified into two main activities - upstream and downstream activities.

The upstream activities in this industry are the exploration and production activities. The exploration activities include locating the hydrocarbon reserves, such as oil or gas reserves, which can be done through desk study, aerial survey and seismic survey. After locating the reserves, the next step is to drill the surface and pump the hydrocarbon out of the reserves. This can be done both on the onshore and offshore through rigs. After the drilling and having established the size of the oil field, the next step would production and development activity where the oil and gas is produced through various techniques and services.

After the oil and gas has been removed from the reservoir and brought to the surface, it is then taken to the refineries where the downstream activities begin. The downstream activities in the industry include refining and processing of the oil and gas products and then further distribution of those products through various distribution channels like the various retailers, distribution companies, chemical plants, etc.

The important industry related to the upstream activities is the oilfield service industry. The oilfield service industry provides equipment and services which are utilized in the exploration and extraction of the hydrocarbons mainly oil and gas. The oilfield service industry is thus the backbone of the oil and natural gas industry providing various services and equipments for the industry to run.

(Etechinternational, n. d.)

Demand for the oilfield service industry:

The demand for the oil field services industry in the market can be measured in terms of the revenue generated by the industry over the years. Given below is the revenue generated by the industry in USD billion over the years from 2007-2011 and it also shows the forecast of the industry for the next five years till 2016.

(Source: MarketLine, 2012)

Figure 1: Revenue of the Oilfield Service Industry in Billion \$

The global revenue of the industry had been on the increasing trend till the 2008 where it reached a high of USD 361.9 billion. There was a decrease in the revenue in 2009 to USD 256.9 billion where the revenue declined by 29.1% which was mainly due to the global economic and financial crisis which resulted in the drop in the oil price. The WTI Crude Oil Price (refer Appendix 1) indicates that the oil price was once at the peak in 2008 at \$145.

16/barrel (Yahoo Charts, 2012) and then there was a sudden drop in the oil price and this price drop did sustain in the industry for quite sometime. This drop in the price of the oil led to loss of billions of dollars to the industry due to various macro and micro-economic factors in the market. (Hamilton, 2009)

But later on after the financial crisis, the industry started to improve its business and now since the market has been stabilized and is seem to be rising is expected to reach global revenue of \$638.4 billion by 2016.

(MarketLine 2012)

Knowing the basics of the oilfield service industry, let us know look into what are the indicators which help us to understand the growth in the industry and the factors which influence the growth of the industry.

## 2. 1a Upstream Capital Spending:

The oilfield service industry has been mainly dependent on the upstream or the exploration and production industry as the oilfield service industry does not provide its services directly to the consumers but to these exploration and production companies. Thus the growth of the oilfield service industry depends upon how the upstream industry performs and spends. (Ernst and Young, 2011). The upstream industry is basically segregated into large

integrated super-major oil and natural gas companies, international independent oil and natural gas companies which are also known as the International Oil Companies(IOC's), and the national or state-owned oil companies also known as the National Oil companies(NOC's). Thus the upstream spending will result as a combination of all these three types of companies.

The upstream spending seems to be on a rising high over the past few years and is expected to be on an increasing trend for the next few years. This upstream spending mainly consists of both the capital expenditure (CAPEX) and the operational expenditure (OPEX). (Rigzone, 2012). As CAPEX refers to an investment in a business, thus more the investment in the upstream industry, better is for oilfield service industry.

The upstream capital expenditure has been on an increasing trend over the past few years and the total spending was estimated to be USD 450 billion in 2011(Brown, n. d), which was at an all time high over the years and the oil field service industry seems profitable at this juncture. The oil and gas exploration and production CAPEX for the past decade and for the next few years is shown below.

(Source: Combination of WoodMackenzie Corporate Analysis Tool and Upstream Service cited in Brown, n. d and Energy Equipment and Support Services Oilfield Services Sector Report, 2010, please refer Appendix 2 and 3)

Figure 2: Upstream Capital Expenditure from 2001 - 2013

In the above figure we see that the upstream capital spending which does not include the exploration and appraisal spend. In this graph, we see that the expenditure has been increasing until 2008, where there was a dip in 2009 due to the global economic and financial crisis. The spending of the E&P industry is mainly due to the major IOC's and NOC's which contribute about 50-55% of the total spending. (Worldoil, 2012).

## 2. 1b Rig Count:

There are many indicators where the investors of oilfield service industry can measure the growth or the demand for the industry. The upstream capital spending is one of the principal indicators which provide insights on how the industry is generating the revenue but the major concern with the upstream capital spending is that the figures are not released on a timely basis as it is shown in the quarterly or the annual report. So it is difficult to have updated information on a timely basis like weekly or monthly about the industry.

Thus, to have timely updates on the industry, there is another useful indicator which helps the investors know the industry demand worldwide. This indicator is known as the rig count. The rig count indicates the number of rigs which are currently active in the industry and this shows the ease of use of rigs, and in which area the demand of the industry is more and also it indicates the demand for labor. It is a very easy and a quick access to growth in the oil field service industry. It is used by many companies, analysts like for example Wall Street analysts use the rig count for profit projections for the oil field service companies (Sprehe, 2004).



There are a number of rig counts available to serve the industry like the Baker Hughes, Smith Tools but the most commonly rig count used is the Baker Hughes (BHI) rig count as it is one of the oldest rig counts in the industry. Baker Hughes Rig count gives a weekly update on the North America rigs and a monthly update on the International rigs.

Area

Last Count

Count

Change from Prior Count

Date of Prior Count

Change from Last Year

Date of Last Year's Count

US

17-Aug-12

1914

-17

10-Aug-12

-60

19-Aug-11

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

Canada

17-Aug-12

326

+27

10-Aug-12

-160

19-Aug-11

International

Jul-12

1264

-21

Jun-12

+114

Jul-12

(Source: BHI Rig Count as on 20-Aug-12)

Table 1: Baker Hughes International Rig Count displaying the active rigs.

As we see in the above table, it shows the update on the active rigs in the America, Canada and International where if we observe that the last count

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

for the America rigs is on the 17-August 2012(weekly) whereas for International it is July 2012(monthly). This table also analyses the changes in the active rig count from the date of prior count. This table also portrays on how the industry has grown comparing from last year's figures. (Baker Hughes Investor Relations, Rig Count, 2012).

The Baker Hughes rig count measures the number of rigs which are actually being drilled at a give point of time on a weekly (North America) and monthly (rest of world) basis. This indicator also provides additional information like rig count by states, or whether the rigs were used for drilling the oil or the natural gas from the surface. A lot of products and services are required for an active rig and thus the use of these products and services show the demand for the services provided by oilfield service industry. (Brener, 2008). An increase or decrease in the rig count also shows the job market in the oil industry where increase in rig count increases the opportunity for more jobs for the oilfield workers.

The BHI count considers the count of ' active' rigs which means the rigs which are actually drilling holes on the land or the sea to extract the oil or the gas. Therefore, if a rig is being transferred from one location to another, or is being involved in non-drilling activities like casing, or completion and production activities, then Baker Hughes does not count the rig as active, even if the activity is still being performed at the field by a number of suppliers and outworkers. Though the rig count shows a lot about the drilling activity, it does not show many other important factors. The factors which the rig count does not portray are production activities, depth, cost and location. (Brener, 2008).

The below chart shows the average rig count worldwide from 2000 to June 2012 and we can observe that number of rigs have been on the increasing trend apart from when there was a dip during the financial crisis which hit the industry.

(Source: Baker Hughes Investor relations, Rig Count 2012).

Figure 3: Average rig Count according to Baker Hughes International

The average rig counts for 2011-present from the various geographies is shown in the Appendix 4 where we observe that North America has been leading all the way and that's where the companies generate their maximum revenue from. There are various other companies which use rig counts internally and do not show publicly how the company's rig count. One of the companies is Schlumberger and its details are provided in the Appendix 5.

## 2. 1c Industry Trend:

The trends of an industry help us to understand what are the current issues and their effect, and also help us to consider what are the current matters taking place and speculate the likelihood of the impact in the future. There have been many other micro and macro factors which affect the industry trends like the oil demand and supply, fluctuation of oil and gas prices and most of these factors have been interdependent to each other in one way or other. Like, if we see fluctuations in the current price and future prices of oil and natural gas, it has an influence the spending levels of the energy industry which in turn influences demand in the industry. The following table

shows the relation between the WTI oil price, upstream capital spending and the rig count.

Year

WTI Crude Oil Price(\$ per barrel)

Upstream CAPEX(Billion \$)

Average Rig Count

2011

98. 83

450

3465

2010

91. 38

410

2985

2009

79. 39

378

2304

2008

44.6

435

3336

2007

95.95

350

3116

(Source: WTI Crude Oil Price - The oil price at the end of business year - Yahoo Charts.

Upstream CAPEX - Combination of WoodMackenzie Corporate Analysis Tool and Upstream Service cited in Brown, n. d and Energy Equipment and Support Services Oilfield Services Sector Report, 2010, please refer Appendix 2 and 3.

Average Rig Count - Baker Hughes Average Rig Count)

Table 2: Relation between WTI crude oil price, upstream CAPEX and avg Rig Count

Thus the above table shows the trend in the industry indicating that the demand in the industry depends on the Upstream CAPEX and Rig count which is dependent on the WTI crude oil price. This shows that as when

<https://assignbuster.com/industry-and-competitor-analysis-of-schlumberger/>

crude oil price increase, there is a tendency for the investors to invest more in this industry. We see a dip in 2008 due to the economic crisis but in this year we saw that the highest was \$145. 16 per barrel in July and the lowest was \$30. 28 per barrel in December. The average rig counts has also seen a dip during the year 2009 from 2008 indicating that there was less demand of labor work during the year. Thus we can propose that the Rig Count depends on the Investment in the Upstream Industry which inturn depends on various factors such as crude oil and gas fluctuations.

Having known the trend in the industry we need to analyze how a company will maintain its profitability in this economic situation which holds good also for the future as well. This can be analyzed in the next chapter using the Porter Five Forces Model.

#### Chapter 4: Porter five forces analysis:

In order to know the profitability of an industry, the corporate strategists suggest using the Porter five forces model in order to anticipate the competitive environment. Porter, 2008 said ' Understanding the competitive forces, and their underlying causes, reveals the roots of an industry's current profitability while providing a framework for anticipating and influencing competition (and profitability) over time'.

The Porter 5 forces are: Rivalry among existing customers, Threats of substitutes, Power of suppliers, Power of buyers and Threats of new entrants. The impact of the forces on this industry is shown in the following table.

Forces

Impact

Rivalry among the existing competitors

HIGH

Power of Suppliers

MODERATE

Threat of Substitutes

LOW

Power of Buyers