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**NUST Business School**

**EMBA 2K17**

**Topic:**

**Impact on Oil & Gas Industry (Case of Halliburton)**

**Project**

**Submitted by.**

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## **ACKNOWLEDGEMENT**

I would like to express my sincere gratitude to my supervisor, Dr. Adeel, for his continuous support, patience, motivation, enthusiasm, and immense knowledge. His guidance helped me in all the time of research and write up of this project.

## **ABSTRACT**

The report is intended to describe the external factors affecting the organization - Halliburton Worldwide Limited in Pakistan. This project aims to review the current performance of Halliburton and identify the gaps. It then evaluates the performance. It evaluates the best practices and pinpoint if there are flaws and loopholes in the system that can be improved and enhance the system to benefit the organization in the long run. The recent outbreak of Covid 19 adversely impacted almost all the industries. The project encompasses its impact on Oil and Gas industry and the effect on Halliburton. The project is focused towards third party service provider to oil & gas exploration and production companies

You must have to transform company's processes so you can do more for customers that means breaking down barriers, tearing down silos, unlearning outdated processes and reinventing the way things are done. This gives a competitive edge over rivals.

## **EXECUTIVE SUMMARY**

The Company focuses on the best service which means safe delivery of products/ services that are according to industry standards and satisfy customer's requirements, quality expectations on time and at the reasonable price. Halliburton involves a sequentially organized set of operations. The prime purpose of organization is to provide best customer service at the lowest possible cost. It is being addressed that company is working in order to continuously improve HSE awareness in support of decreasing work-related losses and potential environmental hazards where the supply of good and services is involved. However, the recent episode of covid was unprecedented for the entire industry and still facing challenges in achieving targets

## COMPANY VISION AND MISSION



## ORGANIZATION OVERVIEW

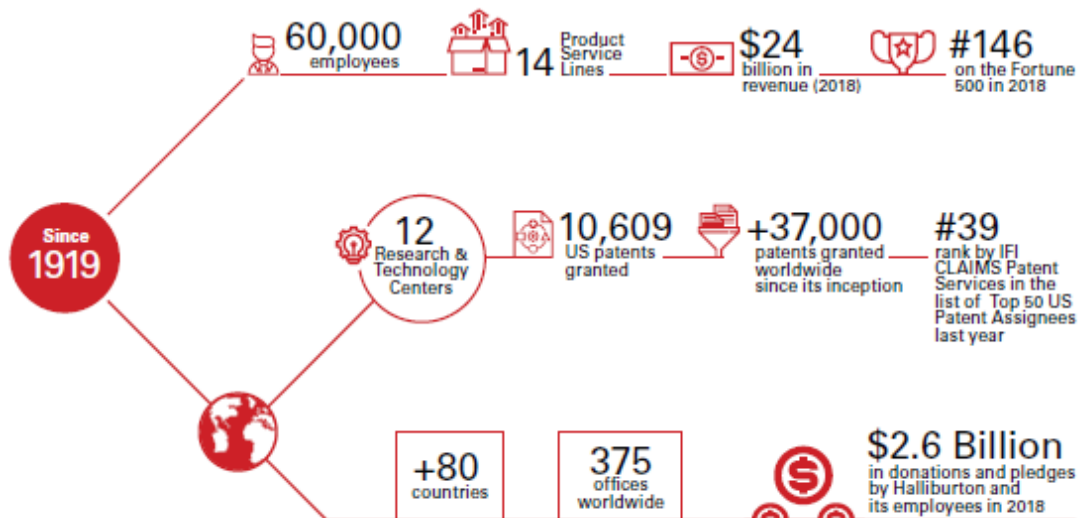
Halliburton came into existence in 1919 and it celebrated its 100 years as one of the world’s largest providers of products/ services to the oil and gas industry. It has more than 60,000 employees and existing in over 80 countries. It has its head office in Houston – USA. The company is inclined towards maximizing customer value– from locating hydrocarbons and managing geological data to drilling and formal evaluation, well construction and completion and optimizing production throughout the lifecycle of the asset.

Vision: To deliver a customer experience second to none, as globally competitive, creative and ethical thought-leaders.

## History of Halliburton



### HALLIBURTON BY THE NUMBERS



## Pre-Scenario

The Company complies policies and business practices to lay down the fundamental requirements in order to carry out decisions and actions in the course of business. The major purpose is to align and sync the goals organization. This eventually impacts the performance of the organization. Company requires that any work rendered is in according to generally accepted industry standards and good engineering principles.

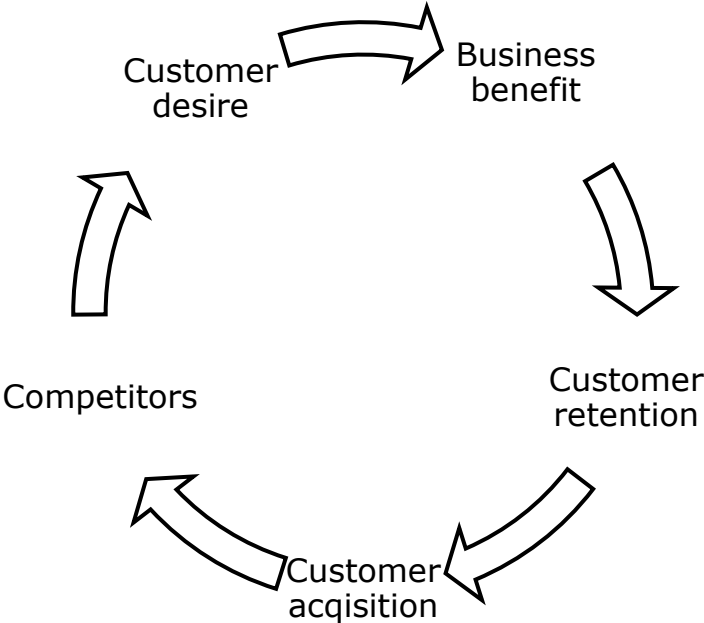
## GAPS

There must be needed to make radical changes in company structure, processes and way of thinking which will impact both externally towards stakeholder and customers and internally (processes). For example, A lot of paperwork require instead of one digital signature. Work needs to be done for optimum asset utilization. Cost cutting on training can have other long terms impact on the processes. It is essential to work on the following

- ↗ Financial performance
- ↗ Operational performance
- ↗ Strategic Fit

## POST SCENARIO

Halliburton is now moving with faster pace into digital market after evolving internally further things are organized and structured. Processes are simpler in fact, more digital culture without paperwork. A lot of effort has been put in for cost optimization by better utilization of assets and focusing on customer retention by applying competitive techniques of offering discounts on early payment especially when conditions have become tight due to COVID



Customers retention and acquisition is always being on top priority for running business. For that purpose, we need to study the market dynamics and requirement how change will implement and for sustaining change.

## List of Competitors

The company is directly competing for the market share in the industry with the following firms:

- Schlumberger
- Baker Hughes
- Weatherford

## Challenges due to COVID

Following were the critical challenges faced by the organization.

- Purchasing power reduced in the economy  
Currency fluctuation changed the remittances and other companies had less budget to purchase products. Expenditure was reduced and budgets were cut
- To cater for initial performance decline during COVID  
Share price dropped to an absolute minimum to more than 80%. Investors were reluctant to further invest.
- Impact on business revenue  
Business revenue was decreased by 50% due to lesser activity and pessimist observation.
- Capex reduction  
Non-performing assets were sold and new assets were not purchased for some time in order to reduce CAPEX budget.
- Cost of training reduced  
As there was not travelling allowed training budget was cut and there was no training for the whole year,
- Optimizing Infrastructure cost  
Rental costs were reduced by moving to other offices which have less cost.
- Downsizing in the organization  
There was massive downsizing in the organization which some of the loss-making departments being completely shut.
- Survive with minimum resources  
There was more focus towards increase in difference of Revenue vs COGS.

## MARKETING OBJECTIVES

- Business expansion and be the market leader
- Better service provision by retaining customers
- Attract customers and meeting their requirements
- Better performance with improved services provided to customers

## **PORTER'S FIVE FORCES MODEL**

### **Threat of new entrants**

Nowadays technology is moving at a very fast pace. Human beings have to keep themselves at par else, we would be left behind. Same goes for the Organizations, Organizations have to keep themselves well informed and up to date with new technologies, especially when the Organization is related to Technology then it becomes more important else, their competitors easily replace them. There are many Chinese companies entering the market which are providing services at a much lower cost which is the biggest threat.

### **Bargaining power of buyers**

Buyer ability to substitute is easy so it is very important to work towards customer loyalty, as the switching costs are low. Buyer's information availability is high because buyers can find available options on the internet and can easily compare the prices. Reputation of the company with regard to HSE also plays a pivotal role.

### **Bargaining power of suppliers**

Improved infrastructure has made its quality better. The department of procurement takes the lead role in the negotiations, managing the administration of a contract. It involves the following for successful implementation from start to finish. Vendors that provides a product or service for sale to the Company has gone through all required levels of review and approval. A vendor's information is stored in SAP Vendor Master Data. The number of people involved have been reduced due to digitalization.

### **Rivalry amongst existing competitors**

Sustainability is essential in the overall strategy as we seek to show long term financial value while minimizing our environmental footprint and bringing a positive impact on society. There are three major service companies who are directly competing with each other. Collaboration is an efficient way to lower costs and simplify contractor management.

### **Threat of substitute products**

There has been an aggressive price in terms of discounts and offers and since the switching cost is low the marketing campaigns are quite aggressive. With increasing global operations and transactions, there is a need to upgrade the infrastructure to handle the level of urgency. Strategies need to be set in order to assess how to assure the delivery and transportation of equipment on time and not cause delays on projects.

## 4 P S

Marketing mix is an essential tool in order to find out the product/service offered and the execution plan for products offered successfully. The company has to deliver according to the contract specification which is critical for the avoidance of substantial loss to the Company. It must try to shorten or make up the delay by all reasonable and expeditious means and compensate the customer in order to retain customer loyalty.

### Price

Different packages offered according to different customer requirements. Volume discounts are also offered on big contracts. The following are the most common pricing techniques.

- Competition based Pricing
- Market Penetration

Competitive Bidding is a common method in order to avail contract for specific duration. For standard purchases of a product or service a competitive bid should be performed. Unless business conditions dictate otherwise several bidders are included in a bidding activity to ensure that a sufficient number of complaints bids are received to conduct a meaningful evaluation. This involves selection of contract from this bid process. Discounted rates have to be applied in order to retain customers since March 2019.

### Product

Halliburton is increasing its product portfolio. This will help them sustain competitive advantage. The following products & services are provided:

- Drilling and Evaluation
  - Sperry Drilling
  - Wireline & Perforating
  - Baroid
  - Drill Bits & Services
  - Testing & Subsea
  - Multi-Chem
- Integrating all product services lines
  - Project Management
  - Landmark & Consulting
- Completion and Production
  - Cementing
  - Production Enhancement
  - Production Solutions



Completion Tools  
Artificial Lift

## Place – Distribution channel

One to one contact with customer is done as both customer and service provider are working on the same project. Company provides infra structure to oil fields which are the exploration and production companies. It is working in deep water to high pressure temperature. It is divided into western and eastern hemisphere and runs across the world.

## Promotion

Brand promise - We get results together

The following promotion techniques are used:

- Electronic media
- Printed media

The business acquisition process is our core system for winning business through collaboration with both current and potential customers. Five steps comprise the BAP: Identify, Pursue, Tender, Negotiate and Execute. This has helped in efficient utilization of resources.

Strategic Markets	
 <p>Unconventionals</p>	<ul style="list-style-type: none"><li>▪ Well productivity</li><li>▪ Surface efficiency</li><li>▪ Lowest cost per BOE</li></ul>
 <p>Mature Fields</p>	<ul style="list-style-type: none"><li>▪ Well production optimization</li><li>▪ Improved asset recovery</li><li>▪ Well abandonment</li></ul>
 <p>Deep Water</p>	<ul style="list-style-type: none"><li>▪ Increased efficiency</li><li>▪ Reduced uncertainty</li><li>▪ Lowest cost per foot reservoir delivery</li></ul>

**HALLIBURTO**

## SWOT Analysis

SWOT Analysis is an acronym used to depict the current scenario of Company according to the internal (strengths & weaknesses) and external factors (opportunities and threats). It gives a complete overview of the organization.

### Strengths

Halliburton is the second highest in market share with Schlumberger leading. It has invested huge amounts in infrastructure. It has employed strong workforce. It has a large customer base.

### Weaknesses:

Some customers are not happy with quality of service provided in some areas. They usually cut payment if service provided is not according to required standard. There is a huge sunk cost involved in the purchase of expensive equipment and it is not guaranteed that it will provide profitable returns.

### Opportunities:

Company provides a lot of employment opportunities all over the world. New ideas are being implemented and launched. This also provides opportunities of enhancing capability development among employees and better ideas and innovation techniques help reach customer with better services as well. This will bring increased market share and customer loyalty.

### Threats:

Better and cheaper services by other companies especially Chinese companies are a big threat for the company. The price war is very threatening due to the low switching costs by customers. Oil prices have shown a downward trend due to which a lot of companies are winding up in low return areas which means reduced business activity. Activity has been affected due to COVID as well.

## PESTLE Analysis

PEST analysis is a framework that bifurcates macro- economic factors as political, economic, social and technological analysis. Two additional factors, environmental and legal are also included to make a PESTEL analysis. The analysis is a study of the result of each of these factors (and their interplay with each other) affecting the business.

## Political

Political scenario is critical in the successful running of the business. In addition, the looming threat of terrorism has also decreased investment. The Government can encourage and improve investment by lowering taxes. However due to political instability a lot of companies including Halliburton do not wish to grow within the organization.

## Economic

Pakistan is a developing country which has been a victim of economic crises due to which foreign investment has been affected. There is growing current account deficit, high unemployment, decreasing disposable income, depreciating currency and high inflation rates. Still the industry has to bear the uncertainty and volatility factors which have a huge impact on demand and supply conditions in the market. Economic policies are not consistent which makes it difficult to invest in an economically unstable country. Fluctuations in exchange rate make it difficult to do business because it gets problematic to determine revenues due to depreciating currency. Worldwide business has been affected due to COVID so many offices had to be shut down.

## Social

Nowadays more people would like to remain connected with their family and friends on the go. They do not wish to be located in oil field areas which are away from city and family. The career attitude has changed, people want to work for fewer hours like consulting etc. rather than working all day. The lifestyle attitudes have changed, and people have become more health conscious.

## Technological

The Global market in itself was reaching a maturity. With increased focus on consumption customers want more quality in all types of infrastructure facilities for businesses. Equipment and other facilities cost a huge amount and technology changes in a few years. The older assets are scrapped and new assets have to be purchased on high prices in order to remain up to date as per industry standards.

## Ecology/Environmental

The responses from the survey conducted regarding the general public's awareness about environmental problems such as air pollution, global warming, energy and water shortage in Pakistan; have shown that more than 40% of the participants were aware of these issues and 35.% strongly agreed to the importance of protecting the environment. In addition, 20% of the participants were also aware of the methods of

producing renewable energy. There is increased focus on green energy and Halliburton is putting in efforts to reduce negative externalities to an absolute minimum.

## Legal

In Pakistan, OGRA regulates & resolves the issues related to petroleum products. However, it is also facing problems due to not so many tight controls and not much improvements have been experienced in the regulations and procedures involved. Country on the whole needs to bring a lot of improvement so business activity is encouraged to work. It must be guaranteed that the work must conform to applicable laws, ordinance, rules and regulations of the Country where the work will be provided.

## STAKEHOLDER ANALYSIS

Halliburton works towards a win-win situation towards all its stakeholders with respect to its role, interest, relative power and desire to participate.

- Work with Procurement to documents the scope and specifications of work and provide other relevant information to and to evaluate the commercial terms offered.
- Work with Treasury to determine the financial implications of the proposed purchase/ sale and currency terms
- Work with HSE to determine the health, safety and environmental implications
- Customers are given products with the required standards mentioned in contract.
- The general public is not affected by the negative externalities such as pollution etc.
- Human resource is the asset of the organization. It is essential that they are motivated, and their goals are congruent to the goals of the organization.
- It is important that there is connection between support function and technical department. Communication issues should be resolved and there should be transparency in the system.
- Workforce and customers are updated about HSE rules and regulations especially after COVID 19.
- The shareholders are happy with the growing trend of the company as the share price dropped from \$25 to \$4 due to COVID. Massive measures were taken in order to reduce the impact.



**HALLIBURTON**

## LONG TERM STRATEGY

Program is designed in accordance with 5-step due diligence framework. It consists of the following:

- ↗ Establishing and maintaining Company management systems
- ↗ Identifying and then assessing risks in the supply chain
- ↗ Designing and executing a strategy in order to respond to identified risks such as COVID
- ↗ Reporting on ethics and due diligence

Supplier Ethics: Code of Business Conduct require employees, directors, officers and all third parties that conduct business with or on behalf of Halliburton to act with farness and integrity.

The company is focusing on growing with purpose by understanding the key issues which impact an organization's ability to operate with efficient utilization of resources cost effectively. This includes optimized use of transportation, ordering and minimum inventory holding, material handling, and import /export facilitation, communication and information technology.

Long term strategy includes the following:

- Risk management
- Planning according to demand and supply
- Inventory management
- Transportation and Logistics
- Supply chain strategy
- Green purchasing

Flexibility includes:

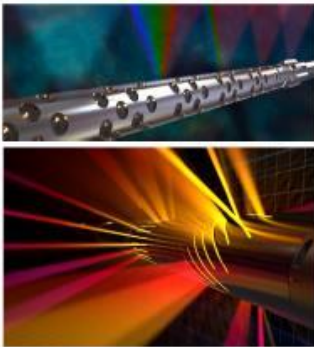
- Drive change actively
- Be ready to adapt to future trends and needs
- Challenge the status quo
- Think and act with customers in mind
- Seek out opportunities and take calculated risks
- Be open-minded
- Embrace lifelong learning

Efficiency includes:

- Manage resources smartly
- Focus on activities that create value
- Do things simply and effectively
- Deliver with appropriate costs, speed and quality
- Speed up good decision-making
- Be accountable for consistent execution
- Collaborate for better solutions

## By Capability

- Artificial Lift
- Fluid services
- Project Management
- Testing and Subsea
- Cementing
- Formation Evaluation
- Real Time Services
- Wellbore service tools
- Chemical services
- Pipeline and process services
- Sand Control
- Well Completions
- Consulting
- Reservoir & Fracture Monitoring
- Software & Services
- Well intervention
- Drilling
- Well Control & Prevention Services
- Stimulation
- Wireline & Perforating



### Reduced Uncertainty

- Logging-while-drilling
- Open hole wireline
- Field development planning



### Increased Efficiency

- Integrated drilling solutions
- Real-time monitoring and decision making
- Well control for safe and seamless operations



### Increased Reliability

- Wellbore integrity solutions
- Optimized completions
- Sustainable production

## CURRENT KPIS

The Company's need to comply with following:

- ↗ Conflict-free materials/ products
- ↗ Respond to requests on sources of supply for information
- ↗ Perform due diligence for products used or provided to the Company

## GAP ANALYSIS

It is being addressed that procurement has to work with its vendors in order to continuously improve HSE awareness in support of decreasing work-related losses and potential environmental hazards where the supply of good and services is involved.

Resolve any disputes with suppliers/customer obtain a return authorization form or a credit receipt for returned items.

Company is working on negotiation in order to maximize commercial value. This involves resolution of terms and conditions that are not consistent with the proposed terms and conditions contained in inquiry packages in the schedule/delivery, technical terms or price for the offer..

With the use of electronic data interchange (EDI) it can speed up operations. EDI could be used to integrate with suppliers, customers, freight carriers and banks. This could optimize the processes and minimize manual data entry that would benefit.

Adaptive and agile supply chain network Halliburton can be more responsive. Communication and collaboration enable to better adapt to meet customer needs.

Halliburton can integrate forward or backwards by vertical integration. This will reduce the risk of reliance on third party. The theory of comparative advantage can be used in find out of what functions to perform in-house and what functions to contract out.



## VALUE CHAIN

Selection of vendor include the following:

- ↗ Availability of pre-existing approved supplier
- ↗ Probability of a recurring need for this supplier
- ↗ Past performance verified, either internally or from verifiable external sources
- ↗ Financial status
- ↗ Export compliance

The following types of sourcing activities can be conducted online utilizing the Company's SAP online e-Sourcing platform.

Request for information or RFI

An RFI allows the Company to obtain market intelligence and information about potential suppliers' capabilities, products or services.

Request for Quotation or RFQ

An RFQ is issued to bidders for a specific material or particular scope of service work and contains relevant technical, quality, HSE and other commercial contents (specifications) enabling a bidder to respond and make an offer. Factors considered in the RFQ process include schedule and cost.

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Supply chain links:

Exploration → Production → Refining → Marketing → Consumer

The links represent the interface in companies and material that flow through the supply chain.

An essential consideration in supply chain management is to apply just in time (JIT). This arises the need for regularly forecasting what will be needed beyond daily routine and recurring supplies.

Warranty/Guarantee Term: It must guarantee that the work provided to the Company will be free from defects in materials, performance, operation and workmanship.

Warranty/Guarantee Remedy: In the event that any of the guarantees are breached, they must repair, replace or resupply the work (including removal, reinstallation, access, shipping and labor costs)

## Value Chain



Source: *Edraw*

## EXPECTED FINDINGS

The Company utilizes the Halliburton Contract Management system as the tool to manage contract lifecycle and as the repository of all documents pertaining to supplier contracts and agreements such as drafts, approvals, comments, signed supplier contracts, affiliate addendums, appendices, nondisclosure agreements and terms and conditions.

Management of change is a documented process to ensure controls and governance are in place to manage risks to operations and our customers whenever an operational change takes place. Risks can be managed by removal of the risk/reduction, accepting or transferring risk.

Any individual seeking to change or incorporate term or condition outside the Company's standards must use Variance Chart to determine from whom approval must be obtained. For the purpose of providing an audit trail, required approval(s) to incorporate a contract variance will be evidenced by approval workflows within the Halliburton Contract Management (HCM) database or by email(s) retained by procurement.

Optimized production technology helps on clearing bottlenecks. Halliburton contract management is the online system that houses all vendor contracts.

## Relevance and Contribution:

The reason behind choosing this topic is that it has its relevance in today's world. I am part of Oil & Gas industry for more than 6 years. I have worked for both mainstream oil exploration and production in different functions. However, the recent episode of Covid was unprecedented for the entire industry and still facing challenges in achieving targets. With inside view of organization, I was in better position to apply my skill set of EMBA in the current situation and can provide counter measures

## Analysis of Data

One of the limitations of the research was that there was limited access to data because most of data is confidential. This may be an insufficient sample for statistical measurement and hence it may have resulted in inaccuracy. Further researchers may improve the results by taking data for a greater number of countries and for a greater time period and this may result in greater accuracy for the research.

External Factors affects the organization. The recent outbreak of Covid 19 adversely impacted almost all the industries. The project encompasses its impact on Oil and Gas industry and the effect on Halliburton. The trend of revenue and cost cannot be predicted as there are a lot of companies including Halliburton have been severely affected and nobody can speculate when things will go back to being better.

## CONCLUSION

Halliburton is focusing on bringing internal business improvements for a win-situation for all the stakeholders involved. We have focused on monitoring vendor performance and reduce returns management by increasing transparency and continually monitoring in order to automate the process to be more efficient and raise cost awareness for cost optimization especially during COVID time. A better utilization of assets by selling the old ones.

Halliburton is committed to operating sustainably and maintains the need to continue addressing social and ethical responsibilities as an influential organization. Simultaneously it aims to respect the interests of all its stakeholders. In order to tackle and find solutions for the problems of limited resources, individuals and organizations aim for optimal allocation and conservation of resources so that future generations will also benefit from them and meet the global challenges for tomorrow.

Note: Kindly do not use this report publicly. Thanks

**THANK  
YOU!**