Jurnal Ekonomi Syariah Indonesia
Vol. XI No. 2, Desember 2021/1443 H : 124-130
ISSN 2089-3566 (Print), 2503-1872 (Online)

Tersedia online di
https://ejournal.almaata.ac.id/index.php/JESI/index
DOI: https://doi.org/jesi.2021.11(2).124-130

The Competitive Advantage Analysis of PT Halliburton Indonesia By Using Resource Based View

Ridho Satria Harahap

Fakultas Ekonomi dan Bisnis Universitas Alma Ata
Jl. Brawijaya No.99, Tamantirto, Kasihan, Bantul, Daerah Istimewa Yogyakarta 55184
Email: ridho@almaata.ac.id

Abstract

This research is a descriptive quantitative research embodied in a case study of PT Halliburton Indonesia. This study is aimed to analyze the company competitive advantage with the resource-based approach, through the identification towards resources and capabilities that manifest the competitive advantage and sustainable competitive advantage for the company as well. The method for data collection was conducted through the data acquired from policy maker institutions in upstream oil and gas industry and the data from related research journals, as well as distributing questionnaires and interviews to 6 subject matter experts who are the associated officials of PT Halliburton Indonesia.

The research results show that there are 29 resources and 10 capabilities that influence the success of the company in the upstream oil and gas industry (strategic industry factors). Furthermore, through the resources and capabilities appraising analysis, there are 16 resources and 8 capabilities identified as the key strengths of PT Halliburton Indonesia and become the competitive advantage for the company. Then through the VRIO test, 5 resources that become the sustainable competitive advantage for PT Halliburton Indonesia are identified. These resources are coiled tubing units, well-cementing units, packers and bridge plugs, subsurface safety valve equipment, and good corporate reputation towards clients.

This research provides an overview regarding the available resources that become the sustainable competitive advantage for PT Halliburton Indonesia. Therefore, its development, maintenance, and deployment become a priority for the company.

Keywords: Competitive Advantage, Resource and Capability, RBV, Strategic Industry Factors, Resources Appraising, VRIO, Halliburton

Abstrak

Penelitian ini adalah penelitian deskriptif kuantitatif berupa studi kasus pada PT Halliburton Indonesia. Penelitian ini bertujuan untuk menganalisis keunggulan bersaing perusahaan dengan pendekatan berbasis sumber daya (resource based view), melalui identifikasi terhadap sumber daya dan kapabilitas yang menjadi keunggulan bersaing dan keunggulan bersaing berkelanjutan bagi perusahaan. Metoda pengumpulan data dilakukan melalui data dari institusi pengatur kebijakan di industri hulu migas dan data dari jurnal penelitian terkait, serta penyebaran kuesioner dan wawancara kepada 6 orang subject matter expert yang merupakan pejabat terkait di PT Halliburton Indonesia.

Hasil dari penelitian menunjukkan terdapat 29 sumber daya dan 10 kapabilitas yang berpengaruh bagi keberhasilan perusahaan di industri hulu migas (strategic industry factors). Selanjutnya melalui analisis penilaian sumber daya dan kapabilitas (resources appraising) terdapat 16 sumber daya dan 8 kapabilitas yang teridentifikasi sebagai kekuatan kunci PT Halliburton Indonesia dan menjadi keunggulan bersaing bagi perusahaan. Kemudian melalui uji VRIO teridentifikasi 5 sumber daya yang menjadi keunggulan bersaing berkelanjutan bagi PT Halliburton Indonesia. Sumber daya tersebut adalah coiled tubing unit, well cementing unit, packers and bridge plugs, subsurface safety valve equipment, dan reputasi baik perusahaan terhadap klien.

Penelitian ini memberikan gambaran mengenai sumber daya yang ketersediaanya menjadi keunggulan bersaing berkelanjutan bagi PT Halliburton Indonesia. Dengan demikian pengembangan, pemeliharaan, serta pengerahannya menjadi prioritas bagi perusahaan.

Kata kunci: Keunggulan bersaing, Sumber daya, Kapabilitas, RBV, Strategic Industry Factors, Resources Appraising, VRIO, Halliburton

INTRODUCTION

The oil and gas industry is facing a number of major challenges. The latest issue is energy transition, a pathway towards transformation of the global energy sector from fossil-based to zero-carbon by the second half of this century (Irena, 2021). The energy transition is essential to reduce climate change crisis caused by global warming and also to promote more sustainable economic growth.

In Indonesia, the transition to clean and renewable energy system has become one of the government top priorities. Ministry of Energy and Mineral Resources Republic of Indonesia has created a roadmap to achieve net zero emission. By 2050, the usage of renewable energy is expected to reach 87%, while at the same time the sales of conventional fossil-fuel vehicles are being stopped. In other words, by 2050 the conventional gasoline vehicles will no longer be sold and will be replaced by electric vehicles. Furthermore, Indonesia is expected to achieve net zero emission in 2060 (Kementerian ESDM Republik Indonesia, 2021).

Another issue currently being faced in the oil industry is the global economic recession caused by the Covid-19. The latest topic is the Covid-19 pandemic continues to spread across the world with new variant namely Omicron. Though the Organization of the Petroleum Exporting Countries (OPEC+) stated that the impact of the new Omicron variant is expected to be mild and short-lived and the world have already better equipped in managing Covid-19 (Ghaddar, 2022), yet the economy remains slow and demand for fossil energy keeps on decreasing across the globe.

By having all these challenges the oil and gas industry is facing uncertainty. This is reflected in recent fluctuations of global oil prices. According to the data from Nasdaq, in April 2020 oil prices fell to $22/barrel, the lowest in the last 21 years. Throughout 2021 the oil prices are fluctuated with an increasing trend. In August 2021 oil prices reached $68/barrel, but it still far below the standard compared to 6-7 years ago which reached an average price of $100/barrel (Nasdaq, 2021). This condition impacts the companies engaged in the oil and gas sector. Various efforts are made by oil and gas companies, including expenditure reviews on ongoing projects, and reducing the number of employees.

The fulfillment for petroleum sufficiency in Indonesia is conducted through the cooperation between the Government and Cooperation Contractor (KKKS). KKKS are companies that cooperate with the government to undertake petroleum exploration and exploitation activities with profit sharing system. In the implementation process, these KKKS companies require other types of business entities to fulfill the requirements of procurement regarding the goods and services. This type of supporting business entity is referred to as upstream oil and gas service company or Oil Service Company. Oil Service Company is engaged in upstream oil and gas sector, offering services to KKKS companies in exploration, drilling, maintenance, operations and other services. One of the largest Oil Service Companies operating in Indonesia is PT Halliburton Indonesia.

PT Halliburton Indonesia is a subsidiary of Halliburton Company, an American multinational corporation founded in 1919. With such history, Halliburton is considered as one of the oldest oil service company in the world with plenty experiences. The company's long history and good reputation are the sources of competitive advantage as mentioned by Yunadi (2016), when choosing a product or service, consumer also consider the age of the business compared to the results and performance achieved. Hence, the consumer will be more confident to use the product and service provided.

The uncertainty and changes in the

external environment has led to a decrease in profits in the majority of Oil Service Companies, including Halliburton. According to the company's annual report, in 2019 Halliburton has experienced $441 million operating loss (Halliburton Annual Report, 2019) and $2.4 billion operating loss in 2020 (Halliburton Annual Report, 2020). If calculated by using the return on assets ratio; in 2019 the company is at -4.4% position and in 2020 is at -12.8%.

The pressure experienced by PT Halliburton Indonesia proves how transformation in the business environment can greatly affect the profitability of the company. As mentioned by Suhartini (2020), today's business environments are changing rapidly, complex, radical, unplanned, and requires sustainable development and continuous learning by the organization. The industrial organization's perspective will explain this phenomenon through the study of changes in various factors in the external environment as well as its impact on the internal company. For example, the concept of Porter's five forces model emphasizes that the company's opportunities will be higher and the threats will be lower if the company is in an attractive industry (Porter, 1985). This concept uses two main assumptions: firstly, the resources owned by the company in one industry are homogeneous. Secondly, the resources used for strategy implementation are having a high mobility. But these two assumptions emerge a doubt. These assumptions abandon the possibility of heterogeneity of resources in an industry and the possibility of the non-dynamic movement of resources within an industry (Barney, 2002). These conditions underlies the development of resource-based view which explains that the sustainable competitive advantage is acquired from the company's internal strength (Barney, 1991). There are strategic assets, the firm's specific resources and capabilities that are scarce, difficult to imitate by the competitors, and provide competitive advantage (Amit R. & Schoemaker, 1993).

In reference to a resource-based view, for Halliburton Indonesia, the challenge faced is how to develop, protect, and mobilize resources and capabilities that can help the company to acquire the competitive advantage. According to this description, it is interesting to study regarding the availability of resources and capabilities to become a source of competitive advantage for PT Halliburton Indonesia in the upstream oil and gas industry during the uncertainty that occurred at present time.

RESEARCH METHOD

This research is a descriptive quantitative research embodied in a case study of PT Halliburton Indonesia. The type of descriptive design used is a case study research. The procedure of research implementation is conducted through several stages. The initial stage is conducted by collecting the list of resources and capabilities that affect the upstream oil and gas industry. The list of those resources is formulated by accessing the official site of the upstream oil and gas industry standard operating institutions (APIs), the API (American Petroleum Institute), as well as collecting several lists of capabilities from related journal publications.

The second stage is the process of identifying the resources and capabilities that become the competitive advantage for PT Halliburton Indonesia which conducted through disseminating questionnaires towards the related officials in the company. At this stage, the researcher has met directly with the subject matter experts at the location of the operating unit of PT Halliburton Indonesia that located in Duri and Jakarta City. The design and method of the questionnaire assessment are conducted by referring to the concept of resource appraising model.

The last stage is analyzing the resources and capabilities that become a sustainable competitive advantage for PT Halliburton Indonesia. At this stage, the researcher disseminates the VRIO test questionnaire and conduct direct interviews towards the subject matter experts in the management ranks of PT Halliburton Indonesia.

Analysis and Discussion

Resources and Capabilities Identification

The identification of tangible resources is conducted in accordance with a publication published by API (American Petroleum Institute). In the process of identifying these

tangible resources, researcher accesses the official website of the API which lists the physical resources that play an important role in the upstream oil and gas industry. According to the publication of the official website pages of API, the research has found 20 lists of physical resources that determine the sustainability of oil and gas service providers in the upstream industry (American Petroleum Institute, 2020). The intangible resource identification stage is conducted through referring to the categorization compiled by Grant (2010) who found 9 other resources that contribute to the sustainability of the company's business (Grant, 2010). Then, there are 10 lists of capabilities that also contribute towards the success of a company in the upstream oil and gas industry (Shuen et al., 2014) as well as the functional classifications compiled by Grant (2010).

Resources Appraising

The resources and capabilities analysis is conducted by recapitulating the results of the questionnaire that have been disseminated towards the subject matter expert (SME). In order to recapitulate the results of 6 SMEs appraising processes, the researcher calculated the mean value of each resource and capability. Table 1 below is a resources and capabilities appraising table that presents a description regarding the position of resources and capabilities of PT Halliburton Indonesia.

Table 1 The Analysis Results of Resources and Capabilities Appraising

Resources / Capabilities	Code	Importance	Relative Strength
Coiled Tubing Unit	R1	**8,5**	**8,75**
Surface and Underwater Safety Valves	R2	**4**	**3,75**
Drilling Equipment	R3	**9,5**	**8,5**
Well Cementing Unit	R4	**9**	**9,25**
Wireline & Perforating System	R5	**8,5**	**7,75**
Fishing Equipment	R6	**2,25**	**2,25**
Drill Bits	R7	**4,25**	**6,75**
Drilling Fluids	R8	**7**	**6,5**
Completion & Fracturing Fluids	R9	**7,25**	**7**
Proppants	R10	**7**	**7**
Drill Through Equipment / Through Tubing Equipment	R11	**3,5**	**3,25**
Control System for Diverter Equipment	R12	**4,5**	**3,25**
Marine Drilling Riser Equipment	R13	**6,5**	**4,5**
Subsea Safety Systems	R14	**6,5**	**4**
Packers and Bridge Plugs	R15	**9,5**	**9,75**
Subsurface Safety Valve Equipment	R16	**9**	**9,5**
Artificial Lift	R17	**7,75**	**2,25**
Sand Screens	R18	**8,25**	**9,25**
Downhole Well Test Tools	R19	**8,5**	**9,75**
Liner Hanger Equipment	R20	**9**	**8,75**
Operational Fund	R21	**9,75**	**10**
Company's good reputation towards the clients	R22	**9,75**	**10**
Company's commitment towards the living environment preservation	R23	**9,25**	**9,5**
Global Business Scope	R24	**9**	**9,75**
Patents towards Technology	R25	**8**	**7,75**
The system and network security of internal information	R26	**9,25**	**7,75**
The experiences and skills of company employees	R27	**9**	**6,5**
Team cooperation inside the company	R28	**9,25**	**4,5**
Employees loyalties	R29	**9**	**4,5**

The capability to fulfill the health, safety, environment (HSE) standard	C1	**9**	**8,25**
The capability to predict the operational volume and investment risk	C2	**8,5**	**9,25**
The capability to finish the project according to the determined budget (capital discipline)	C3	**8,25**	**8,5**
Employees' recruitment mechanism	C4	**7**	**6**
Integrated network of management information system	C5	**4**	**7**
Innovation towards the technology	C6	**8,5**	**8,25**
Rapid product's development cycle	C7	**4,5**	**9,5**
Brand management	C8	**8**	**4**
Customer relationship and retention	C9	**9**	**9**
Promotion towards potential client	**C10**	**8**	**4,75**

These result of resources and capabilities appraisal are mapped into quadrant to discover the position of each resource and capability. Figure 1 below shows the mapping result of the resources appraising process.

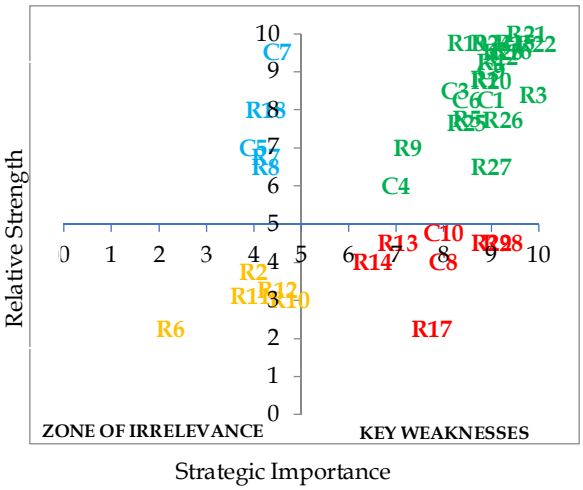

Figure 1 Mapping Result of the Resources Appraising

According to the data processing above, the position results of resources and capabilities of PT Halliburton Indonesia are divided into four quadrants, such as:

Key Strength

The resources and capabilities in this position are considered essential for the business sustainability of the company and to stand above the competitor companies, thus they become the source of competitive advantage for PT Halliburton Indonesia. Resources and Capabilities in key strength positions are: R1 (Coiled Tubing Unit), R3 (Drilling Equipment), R4 (Well Cementing Unit), R5 (Wireline & Perforating System), R9 (Completion & Fracturing Fluids), R15 (Packers and Bridge Plugs), R16 (Subsurface Safety Valve Equipment), R19 (Downhole Well

Test Tools), R20 (Liner Hanger Equipment), R21 (Operational Fund), R22 (Company's good reputation towards the clients), R23 (Company's commitment towards the living environment preservation), R24 (Global Business Scope), R25 (Patents towards Technology), R26 (The system and network security of internal information), R27 (The experiences and skills of company employees), C1 (The capability to fulfill the health, safety, environment (HSE) standard), C2 (The capability to predict the operational volume and risk in the stage of investment proposal arrangement in accurate manner), C3 (The capability to finish the project according to the determined budget/capital discipline), C4 (Employees'recruitment mechanism), C6 (Innovation towards the technology/field technologies), and C9 (Customer relationship and retention).

Key Weaknesses

The resources and capabilities in this position are the weakness factor in the company. Because these resources and capabilities are basically considered essential by the company, however, their strengths are still below the average competitor companies.

Resources and Capabilities in key weaknesses positions are: R13 (Marine Drilling Riser Equipment), R14 (Subsea Safety Systems), R17 (Artificial Lift), R28 (Team cooperation inside the company), R29 (Employees loyalties), C8 (Brand management) , and C10 (Promotion towards potential client).

Superfluous Strength

The resources and capabilities in this position are considered to be in a strong position compared to the competitor companies, however, their roles are considered less important to prevail in the industry competition.

Resources and Capabilities in Superfluous Strength positions are: R7 (Drill bits), R8 (Drilling fluids), R18 (Sand screens), C5 (integrated network of management information system), and C7 (Rapid product's development cycle).

Zone of Irrelevance

The resources and capabilities in this position are the company's weaknesses compared to the competitors, but the company is also considered these resources and capabilities are less important in the industry competition. Resources and Capabilities in Zone of Irrelevance positions are: R2 (Surace and Underwater savety valves), R6 (fishing equipment), R10 (proppants), R11 (Drill Through Equipment / Through Tubing Equipment) , and R12 (Control System for Diverter Equipment) .

The Analysis of Sustainable Competitive Advantage using Vrio

According to the analysis of resources and capabilities appraising, a list of company strengths in the key strength position in the quadrant is found. This list of resources and capabilities is a competitive advantage of PT Halliburton Indonesia. This list of strengths then tested in further by using the VRIO model in order to determine the resources and capabilities that become a source of sustainable competitive advantage for the company. The subject matter experts which in this case are the management of PT Halliburton Indonesia, are provided with a sequential question to confirm whether the listed resources and capabilities fulfill the criteria of valuable, rare, imperfectly imitable, and organizationally aligned.

The VRIO test results discover 5 resources and capabilities as the source of sustainable competitive advantage for PT Halliburton Indonesia, namely: coiled tubing unit (R1), well-cementing unit (R4), packers and bridge plugs (R15), subsurface safety valve equipment (R16), and the company's good reputation towards clients (R22).

CONCLUSION AND RECOMMENDATION

Conclusion

1. There are 29 resources and 10 capabilities that influence the success of the company in the upstream oil and gas industry
2. There are 16 resources and 8 capabilities that become the source of competitive advantage for PT Halliburton Indonesia to prevail in the competition of upstream oil and gas industry.
3. There are 5 resources that become the source of sustainable competitive advantage for PT Halliburton Indonesia. These resources are

coiled tubing units, well cementing units, packers & bridge plugs, subsurface safety valve equipment, and intangible resources in the form of good company reputation towards clients.

Recommendation

1. The availability of tangible resources in the form of coiled tubing units, well-cementing units, packers and bridge plugs, and subsurface safety valve equipment has become a sustainable competitive advantage for the company in the upstream industry. Thus, the company should take steps to maintain the quality of these resources through a series of research and technology development (R&D) activities. The company also needs to consider the purchasing power of clients in the midst of the crisis of declining world oil price as occurred at present. The advantages of reliability and technology should be balanced with the ability to provide competitive pricing on service contracts with clients.
2. The future typical research is expected to review the quality of tangible resources in a more comprehensive manner, thus it would provide more in-depth technical understanding of these resources potential.

BIBLIOGRAPHY

Kementerian ESDM Republik Indonesia. (2021, October 8). *Prinsip dan Peta Jalan Pemerintah Capai Net Zero Emission (Siaran Pers)*. Retrieved from esdm.go.id: https://www.esdm.go.id/id/media-center/arsip-berita/ini-prinsip-dan-peta-jalan-pemerintah-capai-net-zero-emission

American Petroleum Institute. (2020, August 28). *Standards Committees*. Retrieved from api.org: https://www.api.org/products-and-services/standards/committees

Amit R. & Schoemaker. (1993). Strategic Asset and Organizational Rent. *Strategic Management Journal Vol.14*, 33-46.

Barney, J. B. (1991). Firm Resources and Sustained Competitive Advantage . *Journal of Management Vol. 17*, 99-120.

Barney, J. B. (2002). *Gaining and Sustaining Competitive Advantage*. New Jersey: Pearson Prentice Hall.

Ghaddar, A. (2022, January 3). *Opec+ report sees short-lived, mild impact from Omicron variant*. Retrieved from reuters.com: https://www.reuters.com/markets/commodities/opec-report-sees-short-lived-mild-impact-omicron-variant-2022-01-02/

Grant, R. M. (2010). *Contemporary Strategy Analysis*. West Sussex: John Willey & Sons Ltd.

Halliburton Annual Report. (2019, December 31). *2019 Annual & Sustainability Report*. Retrieved from halliburton.com: https://ir.halliburton.com/static-files/672562d9-0e6c-442e-a3b5-69e9418dd7b6

Halliburton Annual Report. (2020, December 31). *2020 Annual & Sustainability Report*. Retrieved from halliburton.com: https://asr.halliburton.com/wp-content/uploads/2021/03/2020_Halliburton_Annual_and_Sustainability_Report.pdf

Irena. (2021, August 5). *Energy Transition*. Retrieved from irena.org: https://www.irena.org/energytransition

Nasdaq. (2021, August 25). *Market Activity*. Retrieved from nasdaq.com: https://www.nasdaq.com/market-activity/commodities/cl%3Anmx?timeframe=

Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press.

Shuen et al. (2014). Dynamic Capabilities in the Upstream Oil and Gas Sector: Managing Next Generation Competition. *Energy Strategy Review Vol. 3*, 5-13.

Suhartini, T. (2020). Implementasi Kepemimpinan Otentik dan Person-Organization Fit serta Hubungannya dengan Kontrak Psikologis dan Komitmen Organisasional Islami. *Jurnal Ekonomi Syariah Indonesia*, 133.

Yunadi, A. (2016). Analisis Pengaruh Usia Perusahaan, Total Aset, dan Citra Perusahaan Terhadap Loyalitas Nasabah: Studi Kasus di BMT Beringharjo Yogyakarta. *Jurnal Ekonomi Syariah Indonesia*, 2.