

Dan Ince 1602836 Assignment 1

by Daniel Ince

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Contents

Executive Summary.....	3
1. Strategic review	4
1.1 SWOT analysis.....	4
1.1.1 Strengths.....	4
1.1.2 Weaknesses.....	4
1.1.3 Opportunities	4
1.1.4 Threats	5
1.2 Porter's analysis	6
1.2.1 Industry competitors.....	6
1.2.2 Supplier power	6
1.2.3 Customer power	6
1.2.4 Threat of substitutes	6
1.2.5 Potential entrants	6
1.3 PESTEL Analysis	7
1.3.1 Political.....	7
1.3.2 Economic.....	7
1.3.3 Social	8
1.3.4 Technological	8
1.3.5 Legal	8
1.3.6 Environmental.....	9
2. Corporate Social Responsibility	10
2.1 CSR Overview	10
2.2 CSR Engagement	10
3. Lean Manufacturing	11
3.1 Overview	11
3.2 Existing methods and Adoption	11
4. Recommendations for Consideration	13
5. Mission and Vision Statement Analysis	14
5.1 Mission Statement	14
5.2 Vision Statement.....	14
6. Works Cited.....	16

Executive Summary

A strategic review of Valero has been carried out, utilising various tools such as Porter's Five Forces and a SWOT analysis. Any potential room for improvement to the corporate strategy has been identified by evaluating threats and opportunities present due to the changing market environment. An improvement to expanding renewable operations should prove beneficial for company longevity and removal of substitutes that may pose as threats. This would also bring in new customers whilst protecting the oil sector of the business. Analysis of the mission and vision statements shows they are already in line with the improvement that could be made, so they do not need modification.

1. Strategic review



Good work here. It would have been nice to have had a few lines considering the difference between the three analysis tools.

1.1 SWOT analysis

1.1.1 Strengths

- Valero's product can be refined into multiple fuel types and other products such as lubricants and so has a large market range.
- Expansion of business to include 'greener' fuels, whilst still maintaining high quality fuel products.
- Rapid response to market changes and cost control. Assets that are no longer cost effective are converted to more economic alternatives. Corporate executives are flown over to plant locations to resolve any business issues that may arise.
- Large investment into current asset projects and infrastructure to guarantee future profitability.
- Acquisitions of additional plants such as Pembroke Refinery to expand operations into Europe.



Would having local decision making be more beneficial. Could relying on this level of management be a weakness?

1.1.2 Weaknesses

- Fast changing environment and niche business model of only downstream refining is largely dependent on the market environment. Small changes can have a large impact on profitability of assets, refining makes up the majority of income for the business.
- Slower response to changes in technology, no implementation of electric charging points at Valero filling stations like other oil companies.

1.1.3 Opportunities

- Demonstration of 'greener' energy and expansion of renewable diesel operations to increase positive public relations.
- Diversification of business assets into other fuel types to provide a broader income range that is 'future proof'.

1.1.4 Threats

- Electric vehicle development is advancing progressively and slowly more individuals are adopting this technology. An increase in electric vehicles equates to a decrease in potential fuel sales.
- Government policies that make it more difficult or less economical to make profit in the oil industry are being introduced and zero-emission vehicle deadlines are being moved forward, resulting in less time to adapt the business model.

1.2 Porter's analysis

Considering Porter's five factors,

A short description of Porter's would be appropriate, evaluates internal and external variables which could indicate where best efforts should be made to the benefit of the organisation

1.2.1 Industry competitors

The nature of the products means it is relatively easy for consumers to switch to a different product manufacturer on a small-scale level.

Ownership and maintenance of large refineries and industrial plants incurs very high fixed costs, this means operation must be continual with large volume daily throughput.

1.2.2 Supplier power

Valero focus on only downstream services such as refining, this means supplies such as crude are bought in to feed the different plants. Focusing on this means that upstream supplies suffer the bulk of the hit if the price of crude fluctuates. The company is provided a choice of suppliers and selects based on the current market conditions. Here the individual supplier has low power due to Valero Pembroke having the capability to process various crudes from other suppliers.

1.2.3 Customer power

Customers rely on the supply of products such as petrol, diesel and kerosene for domestic and industry requirements, however consumers have a choice of supplier.

Purchases are generally made based on cost for many domestic applications, however for bulk purchases to industrial companies, high product specifications are required and so brand choice becomes more of a contributing factor.

1.2.4 Threat of substitutes

The largest substitution threat to the profitability of Valero's industry is the development of EV (Electric Vehicles). This technological advancement is slowly seeing the introduction of EVs into mainstream use.

1.2.5 Potential entrants

New entrants into the oil industry sector are very unlikely at this stage and require a very large capital requirement 'buy-in'. This means to new entrants the threat of retaliation of the existing companies is high and could be very costly, deterring new companies.

Valero also own a number of ethanol and bio-diesel plants and so new entrants into this sector are more likely as many large oil and energy companies branch out into 'greener' or more sustainable fuels.

Government policies are being introduced to force automobile manufacturers to no longer produce IC (Internal Combustion) engines in the future. This is supported in a report by Milieu on the target to phase out ICE vehicles, *"The French target was however formally adopted on 19 November 2019, setting into law the objective of ending sales of passenger cars and light commercial vehicles using fossil fuels by 2040"* (2020)

1.3 PESTEL Analysis

short description of PESTEL and how it focuses on external forces

1.3.1 Political

Valero Energy is an American company with most industrial plants within the US. The recent change in US presidents may have future connotations for the fossil fuel industry. Joe Biden differs from Donald Trump in that his policies and strategies aim to place more restrictions on the oil and gas industry. As stated in a *BBC News* post, *"the new American president has gone to war against coal, oil and natural gas with a decisiveness that has caught everyone by surprise."* (Rowlatt, 2021) This includes halting a project for the large keystone oil pipeline, and aiming for the US to become carbon neutral by 2050. It is explained on the website *JoeBiden*, limits are to be imposed on new vehicle sales to ensure they will be zero emissions in the future. (Biden, Joe, 2021) Actions such as this have caused oil industry share prices to drop since his inauguration.

Although Valero is an American company, some of its assets reside in the UK, a large amount of product from these UK assets is exported to the EU. With the ongoing Brexit negotiations, tariffs could be removed for the importation of fuels from Europe. This could severely affect the profitability of the UK oil industry. As discussed by *BBC News*, the removal of the 4.7% fuel import tariff could undermine the UK's domestic industry and leave them at a competitive disadvantage. (BBC News, 2019)

1.3.2 Economic

Valero's profitability greatly depends on the sale of fuel for personal vehicles and aeroplanes. Due to the recent Covid-19 virus, restrictions have been placed on travelling, and so the demand for these fuels has dropped off hugely. To negotiate these problems, Valero have reacted rapidly and modified their produce to suit the market needs. As stated by *Argus Media Group*, *"Valero can blend almost all of what it would have produced as jet fuel last year into its ultra-low sulphur diesel (ULSD) pool."* (2020)

Crude prices also affect profit margins, for instance *Reuters* reported that Valero suffered a fall in quarterly profit due to failing to find low-cost heavy crudes. This occurred due to the reduction in production from crude supplies causing a rise in the heavy crude price. (2019)

1.3.3 Social

As the world becomes more environmentally aware, people's attitude towards fossil fuels and non-renewable energy has shifted. There is a lot of focus for companies to offset their impact on the environment and become carbon neutral. There is also more social pressure for the organisation to adopt a more 'greener' stance and how they are working to make themselves more environmentally friendly. This public opinion has started to affect people's transport and fuel choices, with the increased conscientiousness towards the impact on the planet. Oil companies may suffer from reduced domestic sales as more individuals opt for a different transport choice, potentially reducing the demand for petrol, diesel and aviation fuel. Valero is expanding its business already into more renewable energy sources such as biodiesel and ethanol. There is also the countereffect of social trends and what people are pushing, certain influencers could take a more environmentally friendly stance, or they could be suggesting holiday destinations which require travel.

1.3.4 Technological

Influences from developing technology puts pressure on the oil industry to adapt. This is caused by electric vehicles (EVs) becoming more advanced to the point where the cost to the consumer is lower. This makes them more of a competitor to ICE vehicles as the cost differential is narrowing. The range of electric vehicles is also increasing, making them a more viable alternative as initially the technology only allowed limited use. If EVs are widely adopted, the knock-on effect to the oil industry will result in far lower profits as the demand for petrol and diesel drops.

Improvements in technology can also aid the business, as oil exploration and drilling become more advanced, previously inaccessible crudes can be obtained, meaning the overall cost drops as there is more supply. These advancements can also guarantee a supply of crude for years to come and so provide more protection to the industry for a longer period.

1.3.5 Legal

Governments are being increasingly pressured into 'green' policies to gain positive public relations; this means more restrictions are being introduced.

Refining carries many associated hazards and failure to implement appropriate controls to reduce the risk can result in damage to people and property. Valero Pembroke Refinery is classed as critical national infrastructure and is a Tier 1 COMAH site and so is legally required to reduce the risks as far as reasonably practicable to be allowed to operate. If an incident occurs, the company can be fined large amounts if found to be negligent. In addition to this, the refinery may be ordered to shut down and cease trading as well as relevant individuals being persecuted for Health and Safety breaches.

As the UK left the EU in January 2020, EU laws and regulations now longer apply to the UK as the implementation period has expired and 'EU Exit regulation are now applicable. (OGUK, 2020)

1.3.6 Environmental

The environmental impact of refining comes with many associated rules and regulations oil companies need to follow. Current standards involve reporting of all emissions and fuel gas usage to the environmental authority, this can result in large fines if there are breaches in the allowed limit. Reporting figures are required to be accurate and so investment and calibration of monitoring equipment is a costly expense. Loss of containments of over half a litre are reported as an environmental incident.

These fines can be very large and with the move towards being carbon neutral, fines may get larger and allowed emission limits reduced.

2. Corporate Social Responsibility



2.1 CSR Overview

The company's duty to uphold corporate social responsibility includes taking an active role in making a positive impact on the community. It is important for the company to demonstrate appropriate ethical and social practices.

2.2 CSR Engagement

The company is currently suitably upholding CSR through multiple avenues. Valero utilises an in-house volunteering council to organise community volunteering events of which employees and their friends and family can take part in. Activities that are organised include local beach cleans and community husbandry. Local festivals and events are often supported by a Valero crew and individuals taking part are encouraged to log and build hours. According to Valero, in 2019 around 150,000 hours were logged. (2021)

Community days are set up at local businesses, activity centres and attractions that provide the opportunity for workers to take relatives along. These support the local businesses with the aim of also bringing in new customers. Charity balls, raffles and fundraisers are also regularly done through the company. Valero also take part in donations such as a foodbank collection for the Patch Foundation at Christmas to help the less fortunate during the holiday season. According to Valero, *"Over 4.7 million pounds of food or monetary food equivalents to the San Antonio Food Bank since 2008"* (Valero Energy, 2021)

Valero employees have assisted or served hundreds of non-profit and civic organisations, saving millions of dollars in labour costs. (Valero Energy, 2021) As stated on the Valero webpage, *"Over \$64 million generated for charities in 2019"* (Valero Energy, 2020)

Valero sponsors local projects and sports teams whilst also providing the opportunity of company funded bursaries and paid apprenticeships to students. . Valero also contributes greatly to uphold corporate social responsibility through the Valero Energy Foundation. This is a public charity that Valero has donated more than \$40 million through to provide basic needs and health care, education and civil support to the local communities. (Valero Energy, 2021)

On account of these efforts, and with Valero being the leading energy company on the Civic 50 list since 2013, the company is suitably upholding CSR

3. Lean Manufacturing

3.1 Overview



good

The principle of lean manufacturing is based upon the reduction of waste resources and time to achieve the maximum throughput of the process whilst at the same time creating maximum value to the customer. With the value defined by the customer, anything that doesn't add to this or may detract from it, can be eliminated.

A common five step lean manufacturing principle is highlighted by the *American Standard of Mechanical Engineers*:

- Define the Value – High quality fuel that meets the specification of the customer.
- Map Value Stream – From buying the crude to refining and delivering the product, whilst identifying waste steps.
- Creating Flow – Removing delays such as unplanned shutdowns, delivery or supply of crudes.
- Establish Pull – Refining product as and when required to suit market demands.
- Seek Perfection – Adopting the lean manufacturing as part of the corporate culture.

(Crawford, 2016)

3.2 Existing methods and Adoption

The pull system is defined by only creating product when there is demand for it, whilst this is true for Valero in some respect, the costs associated with starting and stopping the refineries are huge in comparison to holding excess inventory. Therefore, Valero predominately operates on a push system, ordering crudes well in advance, coupled with the delivery time and then processing them through the refinery. It is only when margins are extremely low, it is more beneficial to shut down and perform outage maintenance work rather than continue running for a given time.

A point of improvement could be found on waiting, various refinery processes require timings of multiple departments, equipment, and companies. Often these do not align and so there is some degree of waiting involve, meaning expensive to rent equipment and contractors are sometimes idle and not economical. A contrasting scenario can happen when these resources are moved to a work area, only for the work to be cancelled or placed on hold, and the resources return to original locations.

Kaizen is more about doing things better

rather than recycling often making small improvements to product or process errors

The Kaizen continuous improvement is adopted in many places already throughout the process. The refining process continually recycles waste product back into the start of the process to gain the maximum use from it before it is wasted. Material from maintenance activities such as waste from grit

blasting is gathered and sold to a company that use it as a supply for building bricks. Examples such as these are plenty throughout the refinery operation.

Valero utilise a vertical management structure to organise and define job roles. This work levelling structure means each individual job role has its own defined description and responsibilities. This corporate structure means approval for actions must always be sought from higher management. Employees in job roles are aware of their place in the organisation and how their role is suited to the needs of the company. There is also a clear step to accepting more responsibility when getting promoted.

4. Recommendations for Consideration

On review of the strategic analysis, there are a few adjustments to the corporate strategy that could be recommended.

Weaknesses highlighted in the SWOT analysis are focused mainly on a slow reaction time to the fast-changing market that surrounds the energy industry as companies and governments move towards more renewable solutions. This ties in with the changing government policies and attitudes that may make operation less cost effective and affect sales. To reduce the impact of this, the renewables sector of the company could be built upon by converting a larger proportion of existing assets into ethanol plants. This would make Valero Energy more balanced between downstream refining and renewables, affecting public representation of the company to an energy company overall, rather than just an oil company. Taking this approach addresses multiple threats, weaknesses and cons previously discussed in the PESTEL analysis. Shifting the public opinion of the company to meet their environmental ideals and expectations will open Valero up as a potential energy option to environmentally conscious consumers and will benefit the refining side of business from additional income. There will also be a continual gradual demand for the renewables side of the business, which will allow Valero to compete against substitutes resulting from technological developments such as the EV revolution.

Highlighted during the concept of lean manufacturing, the largest waste for the company is the idling of people and equipment. This could be addressed by diverting more resources to the planning of maintenance and organisation within these areas. Utilising the vertical corporate structure, a more thorough planning hierarchy containing multiple departments can be set up to improve timings, communication and organisation of maintenance and project work.

5. Mission and Vision Statement Analysis

5.1 Mission Statement

The mission statement of Valero is a representation of what the company can currently provide. As stated on the Valero homepage *"Our products fuel modern life and make a better future possible."* (2020) Here the company is making it clear they provide fuel for modern equipment. However, this latest mission statement leans towards how the current products are making a positive change. This coincides with the company making more of an effort to be environmentally friendly and how their products are necessary for modern life.

5.2 Vision Statement

Valero state, *"The world needs reliable, affordable and sustainable energy. We are advancing the future of energy through innovation, ingenuity and unmatched execution."* (2021)

Through this vision statement, Valero aim to achieve it through the five guiding principles stated on their website;

- Safety
- Environment
- Communities
- Employees
- Governance

(Valero Energy, 2021)

With this vision statement, Valero have defined themselves as an energy company that is steering towards a sustainable future. The statement also suggests the reliability and ease of obtaining the energy from the company, highlighting that the consumer can depend on Valero to provide energy on demand. Another key trait of this statement is 'affordability', combining these attributes suggests the goal of Valero is to be able to provide environmentally energy on demand, and for a good price. This could be interpreted as Valero branching out or moving away from oil being their main business sector. The statement also reinforces the company perspective of being necessary for future advancement, through new ideas that are executed to a high standard.

The current vision and mission statements suit the recommendations set out in the previous section, it allows the company to embrace the shift to becoming a broader energy company and gain commitment from consumers that are looking into 'greener' companies. The mission statement could be clearer and defined as separate from the vision statement. This could be updated to represent the high quality of Valero products as this is a key marketing point.

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Dan Ince 1602836 Assignment 1

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

65/100

Instructor

The assignment is to a very good standard. Details of what was done well and what could be improved can be found in the form.

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Text Comment. Good work here. It would have been nice to have had a few lines considering the difference between the three analysis tools.



Comment 1

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Comment 2

Would having local decision making be more beneficial. Could relying on this level of management be a weakness?

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Comment 3

A short description of Porter's would be appropriate, evaluates internal and external variables which could indicate where best efforts should be made to the benefit of the organisation

PAGE 7

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Comment 4

short description of PESTEL and how it focuses on external forces



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Comment 8

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Comment 9

Kaizen is more about doing things better rather than recycling often making small improvements to product or process errors

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

GRADING FORM: NEW CSG-RUBRIC

DANIEL INCE

65

1. ENGAGEMENT WITH LITERATURE



Research and use of the wider literature relevant to the assignment tasks. The work is well researched and shows a good use of relevant information.

07

2. KNOWLEDGE AND UNDERSTANDING



Display of knowledge of the subject, awareness of current thinking Strategic planning This has been

18

conducted to a high standard. The work is concise and thorough. CSR The review would have benefitted from consideration of the triple bottom line thinking under the CSR heading. Good research. Has been conducted to review the current CSR activities. Lean manufacturing The explanation of lean is satisfactory but would have benefitted from a more careful consideration of the some of the lean tools that are applicable to the refining industry. Whilst the lean tools have come from a volume manufacturing environment there are many applications for them in large process industries such as refining. The consideration of Kaizen misses the point by looking at recycling, Kaizen is about examining current work flows and improving the way the work is done..

3. COGNITIVE AND INTELLECTUAL



Critical thinking and analysis of the topic. Grasp of the broader topic A very good analyses and critical thinking is demonstrated in the report, consideration for the broader implications for the energy industry has been done well.

15

4. PRACTICAL APPLICATION



How well the strategic management planning and evaluation tools been applied. The recommendations and outputs from the analysis have been well set out, links have been made to the analysis to justify the statements.

18

5. TRANSFERABLE SKILLS



Communication skills. How well has the report been written considering report structure and language. A well laid out report that has a reasonable flow to it. Use of bullet points and cutting to the main findings and suggestions make it easy for the reader to draw out key points.

07