Business Report on Volkswagen

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Introduction

Volkswagen AG ("The People's Car") ,is a multinational automotive industry based in Wolfsburg, Germany. It was established in 1937 by The German Labour Front. During the years 1938-2003, VW built over 21 500 000 beetles, which makes it one of the most iconic VW cars. It has grown to be rated the number one car brand on the World Car Brands Rankings 2017. The group comprises of 12 brands (Appendix A) which serve a large target audience ranging from entry level vehicles to luxury sport cars , ranging from the Polo Vivo to the Lamborghini Aventador.

VW suffered a major setback in 2015 with the diesel issue - share prices dropped and the company had to regroup. However the change in CEO as well as the implementation of the TOGETHER - Strategy 2025 improved trust and stability in the company leading it to a great recovery allowing it to have the leading car brand in South Africa in 2017 which is the Polo Vivo.

The Volkswagen Group has many achievements such as:

- In 2017 they produced the fastest car in the world, the Bugatti Chiron, as well as 5 out of the Top 10 fastest cars in 2017.
- They produced 3 out of the top 10 best selling cars ever, the Volkswagen Passat, the Volkswagen Beetle and the Volkswagen Golf.
- They were also listed in the top 10 most valuable car brands by Business Insider in 2017.

The Volkswagen group has 122 production plants worldwide, 4 of them located in South Africa and they plan to continuously grow their market in Africa by sourcing their cobalt for their electric cars from there. Europe has 71 VW production plants - higher than any other region. The VW AG group produces 44 000 vehicles daily and has over 600 000 employees across their 12 portfolios.

In this report we will be analyzing and commenting on the problems that VW will face in the foreseeable future and developing strategies to solve the problems.

Prioritization of important issues (order in which it should be completed)

1. **Product Portfolio Rationalisation**
   We think that by decreasing the amount of portfolios that the Volkswagen Group has, allows them to focus their capital on growing the more profitable and popular portfolios. By slimming down the portfolios it lowers the complexity of the group and allows the portfolios with limited value to be eliminated.

2. **Strategy and cost optimisation**
   We think that it is important for the business to lower their costs in order to get a higher turnover and net profit which they can use to invest in their e-mobility strategies and changing their engines to meet emission requirements. They could also use the leftover funding in the cobalt investment.

3. **Paris Accord and Environmental Legislation**
   It would be devastating to VW AG to have another environmental violation considering the diesel issue. A look at financial reports revealed a great loss and difficulty during the year of the diesel issue. It is also wise to cut down possible expenditure such as fines which could be incurred.

4. **Strategic Sourcing of Cobalt in Africa**
   We believe that securing the cobalt supply is essential in maintaining an edge over the competition. However to obtain this supply they will need to optimise the business in order to easily afford the cobalt. By securing the required cobalt supply they will monopolize the market and limit the resources of their competitors.

5. **E-mobility Strategy**
   We believe that this is the least important scenario at present as it would need a lot of development and innovation to match its competitor, Tesla and that would require other scenarios to be solved first. Innovation would take significant time and money and therefore this is a long term goal. Fuel run cars are still far more relevant in most countries and in the African market where emissions are not as controlled as developed regions. This strategy will not be able to be implemented before 2019 when the Paris accord and environmental legislation come into effect.

Product Portfolio Rationalization

Summary

The VW AG has many portfolios which results in a lack of focus and in order to centralize their focus they need to decide whether or not they want to rationalize their portfolios to have key focus areas or they would want to keep their entire range. They would also need to determine the vitality of certain portfolios and whether or not it is profitable to keep - whether or not they are benefiting VW enough. The volume car category is also producing a loss - considering this is their largest and most well known category they need to find a way to decrease this loss and turn it into a profit.

Problems

- Whether or not they should cut down portfolios in order to have a more centralized focus?
- Which portfolios should they cut?
- The ethical issues that come with cutting down the portfolios

Solution

In order to ensure that the volume cars begin to produce a profit since they have the potential to produce the highest turnover as the most VW cars sold are from this category they have to reduce their operating expenses without compromising quality. Certain vehicles especially VW AG's super premium cars do not produce enough sales or profit to be justifiably kept. The other major issue is that cars such as Bentley and Bugatti have very high CO_2 emissions which could lead to major fines in 2019 and beyond due to new environmental legislation. It will be a very difficult and costly challenge for VW to get the same power out of these cars if the engines emit emissions within the legislation. These brands are not successful enough with Bentley only selling 11000 cars, the lowest from all the brands that were materially significant enough for sales to be shown individually. Bugatti on the other hand produces one of the fastest cars in the world (Appendix F) and is therefore extremely beneficial to public image. Bugatti is notorious for its Veyron which lost money every time one was sold. However its Chiron is different but still does not produce large enough of a profit to justify a continued production. The prestige of Bugatti requires VW to continue owning the company; however they should reduce the production as this will increase the value of their cars such as the Chiron and Veyron but also decrease their portfolios and costs and creates a supply and demand reaction, where when the demand is increased and supply decreases will allow VW to increase their makeup. Cutting down these two brands - selling Bentley and stopping Bugatti production while still servicing and selling Bugattis.

We cannot cut the volume car range as it was the reason that we were founded, by cutting that segment out we lose sight of our vision and mission (to make a car for the people which brings them joy). Essentially we cannot cut the volume car out because it is the original purpose of VW, which resulted in its success.

Strategy and cost optimization

Summary:
The aim of this is to cut the losses of VW and increase their profitability by decreasing their operating expenses in terms of cost cutting in the following business functions: Administration, Human Resources, Marketing ,Production and Purchasing. By decreasing their operating expenses they aim to save 1,5-2% which will increase their operating profit. They aim to do this by centralizing the business operations under the CEO's guidance at the headquarters.

Problems:
- Identifying areas which they can cut costs in
- The ethical issue surrounding job cutting
- Finding better and cheaper marketing ideas

Recommendations
For the strategy and cost optimisation we should cut down business expenses .Part of the strategy 2025 plan was implemented last year, 2017, and this strategy The Services Cost Forum should be implemented worldwide as soon as possible. This strategy aims to reduce overhead costs such as excess stationery, expensive printing and unnecessary devices. It has been implemented in Germany and a few other countries and has had success - Appendix H. Our strategy would be to roll out this program worldwide as quickly as possible and therefore reduce costs. Internal control and measures should be put in place allowing certain branches, dealerships, countries and regions a certain number of devices and a certain quality of printers and ink. This will ensure that wastage does not occur. Measures must be region specific otherwise wastage could occur in smaller regions such as Africa if the size of the company within that region is not considered. Another way to reduce costs is to take advantage over the free advertising they receive from their cars being used as prizes and in other competitions and shows - refer to Appendix I. This unplanned marketing(as shown in the VW up!) allows for a greater target audience and money is not wasted on advertising campaigns that are not as successful as the Revlon competition and justplay.co.za. VW can look into sponsoring prizes for campaigns as this brings them a lot of coverage - more than the value of a car refer to Appendix G. This also allows VW to create more customers from their existing customers which is said to be one of the best marketing tools also known as the word of mouth. VW can also cut costs by centralizing their operation but this will reduce jobs and increase workload on current employees.

Ethics

There's is an ethical issue regarding cost cutting regarding employees/ human Resources. They would have to retrench employees which would leave them with a bad reputation considering they're known for treating their employees well. In March 2017 they had to retrench 7000 positions in order to reach their net profit goals as per appendix H. By reducing the employees, the business loses knowledge and skills which could have benefited the business with growth and creative thinking. It also increases the stress level of other employees as they have to take on the additional responsibilities of the employees that have been retrenched. While the workload of the of the employees increase their productivity will decrease leading to a backlog of work. Although cost cutting can be seen as a good thing for stakeholders or business owners. This negative image can damage the reputation of a business in the public eye. It also creates an air of uncertainty in the business environment which can demotivate the employees and results in them not putting in their full effort. It could ask result in the dissatisfaction of customers as they might have to wait longer for a product or service etc. since the workforce was cut down. In certain areas it might result in employees striking and using trade unions in order to get attention to their issues, once again giving their business a bad image in the eye of the public. Hence cost cutting with employees will bring a bad public image to the business on the other hand increase the operating profit. We believe that even though the profit may increase the negative effects that job cutting will have on the business would have a worse impact than cutting the expenses. Instead they could not give employees bonuses the following year or have smaller increases in salaries.

Paris accord and environmental legislation

Summary
Developed countries are set to tighten emission standards in January 2019 and VW needs to adapt the engines of most of their vehicles to avoid fines of around €600 million and to avoid tarnishing the company's image further in terms of environmental conservation. The legislation is likely to be tightened in 2023 and 2024 and aims to lower the average grams of carbon dioxide per kilometer and therefore dealing with the issue now will prevent further costs as well as fines cutting the business's expenses.

Problems caused by the Paris accord:

- Require a large amount of capital(€19 500 000 000)to meet the required CO2 emission standards by developing the MEB's
- A significant amount of time, planning and innovation is required to build and design more eco-friendly engines especially for the high power, premium cars. It is unlikely that these cars will meet emission standards if they are severely tightened in 2019.

Recommendations

We recommend that VW AG reduce production on cars such as Bentley and Bugatti as elaborated on in the Portfolio rationalization. The emissions on these cars heavily exceed future emission standards that are to be put in place in 2023-2024. And due to the power these cars produce it would be very difficult to reduce the emissions. Other cars such as VW's huge market of passenger cars would need to be adapted and engines innovated to meet the emission requirements. A significant amount of capital can be gained by reducing Bugatti and Bentley production and by cutting costs using strategy and cost optimization. This capital can be used to adapt the engines. Other sport cars like Porsche produce a large amount of emissions. However the large profit, refer to appendix D, is enough to justify paying the fines until alternative engines or measures are put in place. In 2019 once cobalt is secured, and the electric batteries are secured (elaborated on in the e-mobility section) cars can be turned into electric cars which will meet emission standards. The engines of cars in developed areas that are strict regarding emissions are the only ones that need to be adapted now. Cars manufactured for Africa and certain Asian countries can be manufactured the same as before. Other cars especially in the passenger car category will meet emission regulations in 2019, refer to appendix 2, and their engines should only be adapted during the e-mobility strategy - explained later.

Strategic sourcing of cobalt in Africa

Summary

This aspect will need funds from from everything else to pay for the monopolizing. Dealing with cost optimisation, portfolio rationalization and Paris Accord and Environmental legislation will allow the business to reduce further costs and increase cash flow which can be used to monopolize the over-demanded cobalt market. The securing of funds is the reason that this is 4th priority. The sourcing of the cobalt from the artisanal miners comes with an ethical issue even though VW aren't breaking the law. The cobalt could run out during those 10 years and results in them needing to find alternative solutions to making the electric cars.

Problems:

- Where are they going to get the money for the cobalt investment ?
- What happens when the cobalt runs out? Will they find an alternative before Tesla?
- How are they going to deal with the ethical issue?

Recommendation:

VW AG should rationalize their portfolios reducing their costs and they should optimize their operations reducing operating expense and leaving them more cash flow to secure the cobalt market. The production of E-mobility cars will not be sufficient to deal with the new regulations in 2019. Therefore they will have to deal with these fines first and try and reduce the fines to reduce expenses. After this is complete they can invest freed up cash flow from the portfolios that have been removed and from wasted expenditure into the cobalt monopolization. If they monopolize the market they will force Panasonic and their competitors Tesla to provide them with better quality batteries as VW AG will control the supply of the cobalt needed to manufacture the batteries. The diminishing supply of cobalt forces VW to research an alternative perhaps nickel or manganese.

Ethical issue:

The ethical issue surrounding the sourcing of cobalt's comes with a dark past where child miners were used to mine the cobalt hence people and organizations are not happy with VW AG sourcing the cobalt from African countries. People believe that by sourcing this raw material from artisanal miners they are taking advantage of them buy exploiting their resources and skills and getting the cobalt at a lower prices than purchasing it from commercial companies.

E-Mobility strategy

Summary

This is also known as Road Map E and forms part of the Strategy 2025.- in which they aim to surpass Tesla in the amount of electric cars sold. They also plan to become the world's number 1 e-car producer. However they have not been able to get a strong enough battery since their supplier Panasonic already has a deal with Tesla for the best quality batteries. They also plan to have 50 different models across all 3 of their categories so that e-cars are accessible to all their consumers.

Problems:

- It is an expensive process.
- Competition with Tesla.
- Choosing which supplier is best for the batteries.

Recommendations

We think that Panasonic would be the best option because the contract includes a break clause and a 6 months rolling period. In addition to that the batteries they are providing have a lifespan on 160 000 km which is more than most cars do on a motor-plan. However it can only do 160 km before needing to recharge. They are also providing the highest quality out of the 4 potential suppliers. Panasonic also offers an appropriate supply which will satisfy VW's demand for the future production according to Appendix G till 2023. They are also one of the cheapest option €390 000 000 another service offered is JIT - just in time - service which prevents VW AG from having shortages at their production plants and ensures that customers and employees do not have a long waiting period before parts arrive and allow for continuous production. It is a service used by competitors Toyota which seems to have good reviews. Therefore VW AG should pick Panasonic as a supplier. Considering that the success of the electric vehicle is dependent on how well the battery performs, VW needs to ensure that they get the best possible battery available on the market in order to get ahead in the market and have an advantage over their competition Tesla is there major competition in the e-car industry and VW needs to ensure that the level of rivalry is controlled (by keeping up to date with new developments, the cobalt deal and making deals with Panasonic) so that VW stays ahead .

Appendices
Appendix A

Appendix B

Swot Analysis
Strengths :

- Having multiple portfolios - widest spread among the automotive industry
- Top 2 of the top 10 best selling cars in South Africa in January 2018 (Polo Vivo and Polo since 2016)
- VW AG manufactures the Polo Vivo in South Africa (job creation, cheaper cost because no import tax)
- VW AG has a large target audience ranging from cheap cars to more expensive, luxury vehicles and brands
- The VW brand itself has a range of automobiles, small cars, SUV's, Caravels
- Having a fairly new CEO that has worked within the business before rather than employing an outsider
- The together 2025 strategy- builds confidence in the company and looks towards the company's future success .

Weaknesses:
- Even though the most volume category cars are produced and sold they produce the least gross profit
- The drop in share prices and the loss in company credibility following the diesel issue.
- The fines and costs relating to the diesel issue. The recalling of millions of vehicles due to the dieselgate scandal
- Weak presence in America even though it's the second largest automotive market.
- Lack of experience with electric cars

Opportunities:
- There is a gap in the market regarding electric cars.
- VW can monopolize the cobalt market
- Opportunity to expand in the US market
- €160 billion worth of "hidden value"

Threats:
- Lawsuits that still remain from the diesel issue of September 2015
- Competition
- Tesla's electric car industry
- The environmental regulations and other laws that are to be implemented in Europe and the US
- The rise in fuel prices
- Brexit and the likelihood that a trade war may arise between the US, China and other trading partners

Appendix C

Calculation
3550,45 x 1.5%= 53.26 - expected savings in cost of sales, direct factory overheads (in € millions)

Appendix D

Brand	**Profit(operating results) (€ millions)**	**Sales (Thousand vehicles)**	**Emission standards (gCO2/Km**
Audi	5058	1530	118
ŠKODA	1611	937	131,75
SEAT	191	595	-
Bentley	55	11	423. 6
Porsche	4003	248	183
Scania	1289	92	-
Bugatti	-	-	569,67
Lamborghini	-	-	417
Volkswagen Passenger	3301	3573	109

Appendix E

The Top Ten New Motorcycles We're Dying To Ride in 2017

- 1) **Suzuki** GSX-R1000. ...
- 2) Husqvarna Vitpilen 401. ...
- 3) **BMW** HP4 RACE. ...
- 4) **Ducati** SuperSport. ...
- 5) **Yamaha** YZF-R6. ...
- 6) **BMW** R nineT Racer. ...
- 7) **Honda** CRF250L Rally. ...
- 8) **KTM** 1290 Super Adventure R

adapted from www.cycleworld.com

Appendix F

The Top 10 fastest Cars in the world 2018 (www.thedrive.com)

1. 2017 Bugatti Chiron: 261 MPH

Appendix G

1.1 **Updated EV Production**

	2018	2019	2020	2021	2022	2023	2024	2025
Volumes in million units/year	0.1	0.3	3.5	4	4.5	5	5.5	6

1.2 **Tenders From 4 Suppliers (S1 to S4) (supply commencement date: July 2018)**

	S1 -Panasonic	Supplier 2 (S2)	Supplier 3 (S3)	Supplier 4 (S4)
Location of Plant	Japan, Germany, USA, China	Germany, USA, China	Germany	China & US
Length and nature of contract	Was 5 years with no break clause; Now 3 years (6-month rolling) with break clauses and with JIT	6 months (short-term) with no contract break clause	5 years (6-month rolling) with break clauses.	5 years (long-term) with JIT but no break clause.
Quality of production (from sample tests)	Excellent	Reasonable	Very good	Very good
Maximum capacity per annum (million units)	Was 25; Now 5	15	5	10
Average cost per unit (= as quoted to VW AG) in € *(all subject to same minimum order quantities and same inflation rate)*	Was 400 (invoiced in €); Now €390 (to be invoiced in US$)	400 (to be invoiced in €)	450 (to be invoiced in €)	500 (to be invoiced in US$)
Shipping and transport cost per unit €	5.0	5.0	5.0	7.5
Battery range before recharging is required (per km)	125	110	125	125
Battery lifespan (per km)	160,000	160,000	160,000	160,000
Battery lifespan (years)	8	8	8	8

Appendix H

All in all, we saved 170 million euros in Germany alone in 2017. The FSK's work extends beyond the brand's German locations. It now has regional offshoots in Brazil, Mexico, the US and Slovakia, for example. www.inside.volkswagen.com

Appendix I
For the remainder of 2015, Harpur and her team conducted ongoing promotions. Promotions from other companies also had a knock-on effect in terms of awareness for the VW up!. In August 2015, for example, Just Play sponsored two VW up! cars as prizes on its online competition website (www.justplay.co.za/), which resulted in 3 549 potential customers clicking through to VWSA's website. 51 Likewise, a Revlon competition called Styleup!, which ran from 1 September to 15 December 2015 and offered a Revlonsponsored VW up! as the prize, managed to bring about R1.1 million worth of media coverage for the car. - *The Charterquest CFO Case Study Background*

Appendix J
The German carmaker said March 13 it will eliminate as many as 7,000 positions — with measures including early retirement and not filling vacant positions — to achieve an annual profit gain of 5.9 billion euros starting in 2023.
https://www.ttnews.com/articles/vw-cut-jobs-costs-transition-electric-autonomous-cars