EXECUTIVE SUMMARY: REAL CONSULTING - TEAM C2





Volkswagen Group (VW) are currently in a difficult position as they deal with the aftermath of the emissions crisis. To not only survive, but actually grow over the next decade, VW must emphasize Electric Vehicle (EV) technology, and focus on specific geographical areas and countries. VW should target countries that had low sensitivity to the crisis, and have positive prospects over the next decade, in relation to both general automotive sales and EV sales. Additionally, VW should maintain their position in the US market while shifting their focus to EVs. Finally, VW should begin partially decreasing their efforts and spending on diesel vehicles worldwide, particularly in the US.

There is a 79% chance that the NPV of the crisis is between negative 23B and 28B USD. These costs will be incurred over the next decade, with approximately 50% occurring over the next three years and the remaining amount incurred in legal costs up until 2025. It is not possible to obtain an exact dollar figure. A range of banks, academics, investors and funds have priced the crisis as costing VW anywhere from 6B USD,¹ to 87B USD.² It is possible to gain a more reasonable and accurate figure by using a range for each variable in a Monte Carlo model. By simulating the cost of the crisis over the next decade, over one thousand times, it was possible to reach our predicted range. This model also shows a 14% chance of a total cost of up to 33B USD, and an 7% chance of a total cost between 10B and 23B. The mean of these simulations was 25.6B USD.

The non-quantifiable cost of the law suit is primarily the loss of trust that consumers have for VW, and more specifically for the diesel vehicles it produces. VW cannot expect to fully regain customer trust for its diesel products or brands. It needs to start generating a positive consumer message that is future focused. Since the crisis, diesel sales in the USA fell more than 80%. VW should focus less on diesel, and invest in EVs. The EV market will represent 13% of global car sales by 2025 and more than a third of global car sales by 2040. VW has a limited range of EV models but has the capacity to grow its research and development in this space. VW should diversify its investment in EVs by developing charging station infrastructure, EV batteries and an expanded EV range. This new and exciting technology will give VW the opportunity to gain new trust for a new range, ultimately reflecting the group's commitment to changed behavior.

VW should remain in the USA and focus on select areas of Europe and Asia. In the USA, monthly sales of petrol VW brand models have returned to pre-crisis levels. The US is one of the largest markets in the world for both EVs and traditional vehicles. VW should target Norway, Germany and the Netherlands in Europe, and South Korea, China and Japan in Asia. In Europe, significant subsidies are driving huge growth in EV adoption and the average target for EV sales by 2025 is 1 Million. In Asia, VW has strong brand reputation and an established presence. Countries in this region are the fastest growing for EV sales and have committed to targets of +20% EVs by 2025.

This strategy will allow VW to navigate the difficult years ahead following the emissions crisis. While VW will not be able to regain trust for diesel products in the near future, it can create new trust for the group by focusing on new EV technology. This focus on EVs and on the countries identified above will position VW for long term growth and success.

¹ Reuters, January 2016, "VW CEO says 6.7 billion euro provisions enough to cover repairs".

² CNN Money, October 2015, "Volkswagen scandal may cost up to \$87 billion" (Reporting on Credit Suisse financial modelling).