**HBR - Volkswagen Group: Driving Big Business With Big Data**

**Assignment 2.2**

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Aaron Vo

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[1.1.1 What is the landscape of the global automobile industry? 4](#_Toc168347157)

[The current landscape of the global automobile industry is much different from what it originally started from. From a wide adoption of diverse global markets, fierce competitions from all perspective of automobiles, and constant technological advancements makes the automobile industry significantly different and exciting. For instance, the automobile industry has shown consistent growth driven by increasing vehicle ownership, particularly in emerging markets. One of the largest and most reliable market of the automobile industry is from Asia. Europe is also notorious for developing “over-engineered” cars and North America has now become the main staple for fuel alternative vehicles. Automobiles are now built for different purposes, and customers have a wide variety of options from price range, size, and terrain, and even color. Furthermore, automobiles have slowly adopted new and alternative fuel, such as Electric Vehicles (EVs), with the focus on reducing carbon emission. 4](#_Toc168347158)

[1.1.2 How did VW Group's position evolve over the years? 4](#_Toc168347159)

[Volkswagen Group's (VW Group) journey from its inception in 1937 to its position as a leading global automaker by 2018 involves strategic expansion, acquisitions, and a focus on innovation and adaptability. In 1965, VW acquired Auto Union GmbH, and merged It with another manufacturer. This would ultimately create a firm called Audi. Over the next 20 years, VW introduced various models that would become some of its most successful. In 1984, they entered the Chinese market, increasing its reach across Asia and globally. In the 1990s, VW made moves expand into the high-end market by acquiring luxury brands such as Lamborghini and Bugatti. 4](#_Toc168347160)

[1.1.3 What is VW Group's strategy for 2018? 4](#_Toc168347161)

[VW Group strategy for 2018 was to first, deploying intelligent innovations and technologies to become a world leader in customer satisfaction and quality; second, increasing unit sales, in particular, by capturing an above-average share of the development of the major growth markets; third, increasing its return on sales before tax to at least 8 per cent to ensure that the group’s solid financial position and ability to act were guaranteed, even in difficult market periods; and fourth, becoming the top employer across all brands, companies and regions. 4](#_Toc168347162)

[1.1.4 Identify 4 business areas that big data can be used in Volkswagen. 5](#_Toc168347163)

[The four business areas that big data can be used in Volkswagen are improvements to the overall operations, improving the customer experience, increasing revenue across different divisions, and innovation to the cars themselves. Volkswagen can improve its overall operations simply by collecting data from operations. It use this data to analyze key factors that might be able to increase operation times, reduce costs, or even reduce workloads. In addition, Volkswagen can also use big data for their customer experience. For instance, the manufacturer can identify what features certain types of customers use the most and implement this features specifically to target those customers. Big data can also find what customers use least, and optimize/remove those features entirely. Another example of how big data can be used in Volkswagen is to help increase the revenue of Volkswagen. In the, Volkswagen can help optimize their operations. This can have affects with the overall operation costs and by using big data, the costs can lower, further increasing profits. There’s also many other ways Volkswagen can increase revenue via big data such as predictive manufacturing and production efficiency. Finally, Big data can help Volkswagen develop new technology. They can use this data to develop and train their own self driving AI to navigate the roads using machine learning. This is similar to Tesla’s Autopilot, where it “uses cameras, radar, and other cool sensors to know what’s happening around the car.” (Tales) 5](#_Toc168347164)

[1.1.5 What role could big data play in this strategy? 5](#_Toc168347165)

[Big data is expected to give Volkswagen not only a competitive advantage but also overall growth in the 2018 strategy. Volkswagen obtains large amounts of data that can help them increase customer satisfaction and quality, general sales/profits, innovation, and to achieve employee satisfaction. Similar to earlier, big data can give Volkswagen an edge when it comes to developing new machine learning features or use big data to achieve higher customer satisfaction. 5](#_Toc168347166)

[1.1.6 If you were the head of a business unit within VW Group, how would you leverage big data to help the company achieve this strategy? You can select any unit, such as any brand or function. 5](#_Toc168347167)

[As a head of the Audi brand within the VW Group, I would leverage big data to align with the company's "Strategy 2018" by collecting data to help drive innovation and development, manufacturing/supply chain optimization, and customer experience. Let’s look at how this would help the innovation and development. Audi can start collecting user data from sensors, cameras, or microphones to gather knowledge about what how Audi customers operate their vehicles, the behavior on the road, or what they want from their vehicle. Doing this allows Audi to begin research and development on emerging customer needs and preferences. This way, Audi can use predictive analytics to forecast future automotive trends and customer preferences, allowing Audi to develop innovative features and models that align with market demand. Audi can also use big data to enhance the plants’ manufacturing and supply chain. Audi can monitor equipment data and implement predictive maintenance using sensor data from the equipment to prevent unexpected breakdowns and minimize downtime. 6](#_Toc168347168)

[1.1.7 How would you assess and prioritize different big data-related initiatives so that you could select a winning proposal for investment? Please describe your methodology. 6](#_Toc168347169)

[To assess and prioritize different big data-related initiatives effectively for investment, a structured and comprehensive methodology is required. We would first need to ensure that the initiatives align with VW Group’s “Strategy 2018” goals, such as increasing unit sales, improving customer satisfaction and quality, achieving a solid financial position, and becoming the top employer. These imitative would also need to align with the business as well as the everyone working in the VW group such as the engineers, the business department, the floor workers, and the analytics team. I would then conduct a high-level assessment of each initiative against the established criteria to filter out those that do not meet the basic requirements. Once completed I will conduct a scoring model to identify, analyze , and choose the winning proposals. 6](#_Toc168347170)

# HBR Case STUDY - Volkswagen Group: Driving Big Business With Big Data

## UVA CASE STUDY QUESTIONS

### What is the landscape of the global automobile industry?

### The current landscape of the global automobile industry is much different from what it originally started from. From a wide adoption of diverse global markets, fierce competitions from all perspective of automobiles, and constant technological advancements makes the automobile industry significantly different and exciting. For instance, the automobile industry has shown consistent growth driven by increasing vehicle ownership, particularly in emerging markets. One of the largest and most reliable market of the automobile industry is from Asia. Europe is also notorious for developing “over-engineered” cars and North America has now become the main staple for fuel alternative vehicles. Automobiles are now built for different purposes, and customers have a wide variety of options from price range, size, and terrain, and even color. Furthermore, automobiles have slowly adopted new and alternative fuel, such as Electric Vehicles (EVs), with the focus on reducing carbon emission.

### How did VW Group's position evolve over the years?

### Volkswagen Group's (VW Group) journey from its inception in 1937 to its position as a leading global automaker by 2018 involves strategic expansion, acquisitions, and a focus on innovation and adaptability. In 1965, VW acquired Auto Union GmbH, and merged It with another manufacturer. This would ultimately create a firm called Audi. Over the next 20 years, VW introduced various models that would become some of its most successful. In 1984, they entered the Chinese market, increasing its reach across Asia and globally. In the 1990s, VW made moves expand into the high-end market by acquiring luxury brands such as Lamborghini and Bugatti.

### What is VW Group's strategy for 2018?

### VW Group strategy for 2018 was to first, deploying intelligent innovations and technologies to become a world leader in customer satisfaction and quality; second, increasing unit sales, in particular, by capturing an above-average share of the development of the major growth markets; third, increasing its return on sales before tax to at least 8 per cent to ensure that the group’s solid financial position and ability to act were guaranteed, even in difficult market periods; and fourth, becoming the top employer across all brands, companies and regions.

### Identify 4 business areas that big data can be used in Volkswagen.

### The four business areas that big data can be used in Volkswagen are improvements to the overall operations, improving the customer experience, increasing revenue across different divisions, and innovation to the cars themselves. Volkswagen can improve its overall operations simply by collecting data from operations. It use this data to analyze key factors that might be able to increase operation times, reduce costs, or even reduce workloads. In addition, Volkswagen can also use big data for their customer experience. For instance, the manufacturer can identify what features certain types of customers use the most and implement this features specifically to target those customers. Big data can also find what customers use least, and optimize/remove those features entirely. Another example of how big data can be used in Volkswagen is to help increase the revenue of Volkswagen. In the, Volkswagen can help optimize their operations. This can have affects with the overall operation costs and by using big data, the costs can lower, further increasing profits. There’s also many other ways Volkswagen can increase revenue via big data such as predictive manufacturing and production efficiency. Finally, Big data can help Volkswagen develop new technology. They can use this data to develop and train their own self driving AI to navigate the roads using machine learning. This is similar to Tesla’s Autopilot, where it “uses cameras, radar, and other cool sensors to know what’s happening around the car.” (Tales)

### What role could big data play in this strategy?

### Big data is expected to give Volkswagen not only a competitive advantage but also overall growth in the 2018 strategy. Volkswagen obtains large amounts of data that can help them increase customer satisfaction and quality, general sales/profits, innovation, and to achieve employee satisfaction. Similar to earlier, big data can give Volkswagen an edge when it comes to developing new machine learning features or use big data to achieve higher customer satisfaction.

### If you were the head of a business unit within VW Group, how would you leverage big data to help the company achieve this strategy? You can select any unit, such as any brand or function.

### As a head of the Audi brand within the VW Group, I would leverage big data to align with the company's "Strategy 2018" by collecting data to help drive innovation and development, manufacturing/supply chain optimization, and customer experience. Let’s look at how this would help the innovation and development. Audi can start collecting user data from sensors, cameras, or microphones to gather knowledge about what how Audi customers operate their vehicles, the behavior on the road, or what they want from their vehicle. Doing this allows Audi to begin research and development on emerging customer needs and preferences. This way, Audi can use predictive analytics to forecast future automotive trends and customer preferences, allowing Audi to develop innovative features and models that align with market demand. Audi can also use big data to enhance the plants’ manufacturing and supply chain. Audi can monitor equipment data and implement predictive maintenance using sensor data from the equipment to prevent unexpected breakdowns and minimize downtime.

### How would you assess and prioritize different big data-related initiatives so that you could select a winning proposal for investment? Please describe your methodology.

### To assess and prioritize different big data-related initiatives effectively for investment, a structured and comprehensive methodology is required. We would first need to ensure that the initiatives align with VW Group’s “Strategy 2018” goals, such as increasing unit sales, improving customer satisfaction and quality, achieving a solid financial position, and becoming the top employer. These imitative would also need to align with the business as well as the everyone working in the VW group such as the engineers, the business department, the floor workers, and the analytics team. I would then conduct a high-level assessment of each initiative against the established criteria to filter out those that do not meet the basic requirements. Once completed I will conduct a scoring model to identify, analyze , and choose the winning proposals.

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