Case Study: Volkswagen Group and AI
Name: Charles Degboe
Submission: 4/6/25

Volkswagen Group and AI

Business Issue Identification

As a worldleading provider of sustainable mobility, Volkswagen Group (VW) is going through a thorough change under its "Together–Strategy 2025" plan. VW has to use new technologies—especially Artificial Intelligence (AI)—to raise efficiency, better customer experience, and guarantee longterm competitiveness. The task is to find and execute the most efficient AIdriven project supporting its transformation while simultaneously ensuring future profitability and sustainability and solving historical problems (e.g. the emissions scandal).

Industry and Competetive Analysis

Mission and Strategy:

Under Strategy 2025, VW's goal is determined by four main spheres of activity:

1. Transforming the main business means improving modular toolkits, restructuring car manufacturing, and progressing battery technology.

2. Establishing a mobility solutions company—Creating intelligent mobility services via MOIA.

3. Enhancing creative capability by driving AI and digital transformation adoption.

4. Securing financing; improving financial stability; increasing operational productivity.

Competitive placement (Porter's five forces):

- Threat of New Entrants: High levels of capital requirements and regulatory hurdles hinder new entrants, though techdriven startups give challenge.

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- Bargaining Power of Suppliers: With VW vertically integrating battery supply chains, suppliers have some bargaining power.

- Buyers' bargaining power is great since customers seek affordable, environmentally friendly, and creative means of transportation.

- Threat of Substitutes: Rising on account of different transportation methods (e.g., autonomous fleets, electric bikes, and ridesharing).

- Industry Rivalry: Fierce rivalry from automakers such as Toyota and Tesla that are devoting much into electrification and artificial intelligence.

Organizational framework

With two core divisions—Automobile (passenger vehicles, commercial vans, power engineering) and Financial Services—VW runs a multibrand organization. Applications of artificial intelligence should be flexible across these different sectors.

Stakeholders' groups

1. Expect advanced, secure, and AIdriven automobiles from customers.

2. Shareholders/Investors Require great financial return and risk management.

3. Workers – AI integration in operations calls for retraining.

4. Regulatory Agencies check conformity with safety and emissions standards.

5. Suppliers/Partners must align their AIdriven manufacturing processes with those of VW.

Alternative Artificial Intelligence Projects and Influence on Stakeholders

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1. AIDriven Advanced ManufacturingProcessesrekug

Impacts: increased productivity, better quality control, and less waste. Employees benefit from less manual labor, investors from increased margins, and regulatory agencies from better compliance.

2. Artificial intelligencedriven predictive maintenance for automobiles

Impact: Less downtime on cars raises consumer experience. Customers (higher reliability), dealers (lower warranty costs), and VW all benefit.

3. Development of autonomous driving powered by AI

Impact: Positions VW as a leader in mobility innovation but requires extensive R&D investment. Customers find themselves with ease, although regulatory approval and infrastructure issues abound.

Best Alternative: Smart Manufacturing powered by AI

Why It Is the Best Alternative:

- Immediate Impact: AIdriven manufacturing provides nearterm operational benefits, unlike in that of selfdriving cars.

- Risk Mitigation: Ensuring regulatory compliance and solving past quality control issues (an emissions scandal)

- Financially sensible, this secures financing for future projects by producing cost cuts and efficiency improvements.

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- Regarding scalability: AI tools can run throughout Volkswagen's worldwide production network.

Reasoning against other choices:

- Among other things, predictive maintenance is quite important but comes second to increasing manufacturing efficiency.

- Although it has longterm promise, autonomous driving encounters technical and legal obstacles.

Implementation strategy:

1. Stage 1 (06 months): Introduce pilot artificial intelligence quality control and predictive analysis across chosen manufacturing facilities.

2. Phase two (618 months): Expand artificial intelligent automation throughout every Volkswagen plant.

3. Phase three (1836 months): Apply artificial intelligence knowledge in realtime production tweaks and supply chain optimization.

Risk Analysis and Mitigation:

Risk	Mitigation Strategy
Employee Ristance	Implement AI reskilling programs
High Implementation Costs	Secure strategic partnerships amd government funding
Cybersecurity Threats	Strenghtehn AI-driven cybersecurity measures
Data Privacy Concerns	Ensure compliance with GDPR and global data regulations

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Conclusion

For VW, artificial intelligencepowered intelligent manufacturing is the most practical and significant artificial intelligence program. Improvement of production efficiency, quality control, and cost reduction bring the company in line with the goals of Volkswagen's Strategy 2025. This effort not only strengthens VW's competitive advantage but also fosters trust among investors, therefore opening the door for a future of AIdriven automotive brilliance.