

ACE IN LAN

Lancaster University - UK



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Mission:

To prioritize projects and provide recommendations for achieving the desired outcomes



General decision criteria		
Results from SWOT analysis	Customer Satisfaction	Long term sustainability

Colour codes



VOIKSWAGEN ISSUE PRIORITIZATION

Priority	1	2	3	4	5
Scenario	E-Mobility Strategy	Paris Accord & Environmental Legislation	Strategic Sourcing of Cobalt in Africa	Strategy, Structure and Cost Optimisation	Product Portfolio Rationalization
General Description	EVB battery development is core to VW's long-term success	Develop new engine and MEB technology for legal penalty presentation	Maintain a stable supply for car material in the short term	Reduce cost through internal structure adjustment	Unlock "hidden value" from brands for company's advantages
Rationale	Create new values for the group		Manage the existing problems to improve the existing operation		
Urgency (40%)	High	High	Medium	High	Low
Financial Impact (30%)	High	Medium	High	Medium	Medium
Complexity (30%)	High	High	Medium	Low	Low



Issue 1 – E- mobility Strategy

Opportunity & Threat



EVB Battery development is core to VW's long-term success

Problem: EVB supplier contract with Panasonic has ended within a short period of time, the Volkswagen requires to make decision of the EVB production. Our solutions aim to meet the potential demands in the e-car market and increase competitiveness.

Solution 1: Choice of EVB Supplier

Urgency: ■ Financial Impact: ■ Complexity: ■

Short Term (70% Expected Score)

Long Term (70% Expected Score)

Supplier 2

Supplier 4

Maximum production capacity: Highest

Maximum production capacity: Meets requirement

Low cost: Competitive price strategy
(greater market share)

Lower storage cost: JIT
(greater net profit ratio & ROI)

Low quality: Does not meet customers' expectation/
requirement

Desired quality: Meets customers' satisfaction/
requirement

Urgency

Financial Impact

Complexity

Urgency

Financial Impact

Complexity

If Volkswagen decides to switch EVB supplier, the group should sign short-term contract with Supplier 2 to increase market share. In the long run, the group should focus on quality and so, Supplier 4 will be the best option

Background

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Conclusion

Issue 1 – E- mobility Strategy

Opportunity & Threat



EVB Battery development is core to VW's long-term success

Solution 2: EVB Development Alternative Analysis (Long term) Urgency: ■ Financial Impact: ■ Complexity: ■

	1. Make	2. Acquire	3. Partner	4. Outsource	5. Contract	6. License	7. Reference
Total score	18	21	18	11	10	7	-9
Priority	2	1	2	4	5	6	7

Strategy Decision

1 = Low Importance

- ✓ Internal competency
- ✓ Time to market

2= Medium Importance

- ✓ 3rd party capabilities
- ✓ Development independence
- ✓ Complementor availability
- ✓ Customer ownership
- ✓ Price sensitivity

3= High Importance

- ✓ Centrality to the whole product
- ✓ Critical to performance
- ✓ Confidentiality

Reason

- Controllable in the long term as all factors are variable
- Pro: Affects development progress/manufacturing
- Con: The function and quality of the EVB are indirectly affected by strategy 2
- High impact and relationship with customer satisfaction
- Secure assets -> Long term sustainability

Best Option: Acquire an EVB Supplier

- High efficiency
- Better control to meet time, budget & quality requirement
- **Huge risk and cost when misled by information gap**

Alternative Option: Joint Venture/Develop Internally

- Depends on the future situation & business environment
- Backup plan in case the acquisition of an EVB supplier fails
- e.g. test failures & legal changes

Volkswagen could consider acquiring an EVB supplier, setting up a joint venture or developing internally in the long run

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Issue 2 – Paris Accord & Environmental Legislation Strength & Weakness

Develop new engine and MEB technology for legal penalty presentation

Problem: Only a few VW AG's cars meet the new emission regulations. It is important to achieve a long term sustainability and meet the new regulation by developing a new engine and the modular electric drive matrix (MEB) technology

Urgency: ■ **Financial Impact:** ■ **Complexity:** ■




Euro (in million)	Option 1	Option 2	Option 3
Development cost	-19,500	-11,750	0
Penalty for violation	0	-4,145	-4,145
Extra Income	16,060	16,060	3,557
Cash inflow/outflow	-3,439	165	-588

Option 1 = Develop new engine and MEB technology
 Option 2 = Use existing engine and develop MEB technology
 Option 3 = Use existing engine and without any development

Best Option: Option 1

- Highest extra income/Revenue
- No penalty to control expense
- Highest cash outflow for further investment

Impact factor

-  Development cost is fixed; negligible impact in the long run
-  Penalties and corporate social responsibility affect brand image and goodwill
-  Higher profit = higher ROI; Good value for investors

Volkswagen should develop new engine and MEB technologies



Issue 3 – Strategic Sourcing of Cobalt in Africa Opportunity & Threat

Maintain a stable supply for car material in the short term

Problem: Volkswagen has failed to negotiate with major mining companies to secure cobalt supply. It is important to secure the basic supply for car raw material without violating laws

Urgency: **Financial Impact:** **Complexity:**

	Recommendation	Criteria/ Reason
Short Run	<p><u>Reach agreement with artisanal mining operators</u></p> <p>Ordering: Provide forecasting reports Control: Provide guidelines Contract: 1) Transfer risk to supplier or reduce risk 2) Ethical issues (working conditions/ minimum wages/ environmental protection) Marketing: CSR (secure support + overcome opposition)</p>	<ul style="list-style-type: none"> • Create more time for a better cobalt supply planning • Increase employability in Africa (CSR – Quality of Life) • Improve reputation and loyalty in Africa (Customer - Indirect Marketing) • Maintain long term material sustainability
Long run	<p><u>Select the right alternative plan</u></p> <p>Plan 1: Continue sourcing from artisanal mining operators Plan 2: Start a new business and employ the current artisanal operators Plan 3: Negotiate contracts with the DRC’s giant mining operators Conduct market research and maintain a good supply chain management</p>	

Volkswagen should secure contracts from artisanal mining operators for short-term & develop long-term contingency plan to maintain adequate cobalt supply



Issue 4 – Strategy, Structure and Cost Optimization Strength

Reduce cost through internal structure adjustment

Objective: There is no any problem exists from this issue, it aims to reduce excessive costs , improve efficiency of the use of resources and reach targeted operating margin.

Urgency: ■ **Financial Impact:** ■ **Complexity:** ■

Strategy 1: Centralizing functional units	Strategy 2: New categorization of brands	Strategy 3: Focus Premium cars segments
<p style="text-align: center;">Analysis</p> <p>3 points moving average forecasting method used</p> <ul style="list-style-type: none"> Actual data: 2013 – 2017 Forecast Year: 2022 <p>Result 1.64% reduction for cost per car (=€353)</p> <p>Weakness</p> <ul style="list-style-type: none"> Chance for fraud and scandal Clear authority (monitor and control) <p style="text-align: center;"><u>Best option in short run</u></p>	<p style="text-align: center;">Analysis</p> <p><u>Benefit</u></p> <ul style="list-style-type: none"> Cater cultural differences and customer behaviour & decrease expenses Reduce cost of management and monitoring <p><u>Drawbacks</u></p> <ul style="list-style-type: none"> Accounting presentation error Human resources may be unutilized <p><u>Suggestion</u></p> <ul style="list-style-type: none"> Not suggested in short/long run Due to low Stakeholders' satisfaction and long term sustainability 	<p style="text-align: center;">Analysis</p> <p><u>Mission</u></p> <ul style="list-style-type: none"> Increase operating profit margin <p><u>Results</u></p> <ul style="list-style-type: none"> Estimated operating margin will increase 2.45% Decreased €2,961 million in operating profit Lower diversification = ↓ Strength <p><u>Suggestion</u></p> <ul style="list-style-type: none"> May adopt in long run Depend on further market research

Volkswagen should centralize functional units in the short term. The group could change the focus to premium cars segments in the long run



Issue 5 – Product Portfolio Rationalization

Opportunity & Threat

Unlock “hidden value” from brands for company’s advantages

Problem: Some of the brands in the volume segment cannot provide significant value to the group. It aims to remain and improve competitiveness of VW AG

Urgency: ■ Financial Impact: ■ Complexity: ■

Strategy 1 - Reduce the price

<p>In-elastic demand for Volume Car Segment</p>	<p>Expected value/utility of the car</p>
<p>Total revenue: $A+C > B+C$ (Reduced price)</p>	<p>Price Reduction</p> <p>↓</p> <p>Bad Impression of: Low quality products and bad sales performance</p> <p>↓</p> <p>Damages company reputation and affects expansion into new market</p>

Strategy 2 - Cease production for unprofitable brands

Operating profit margin (%)

Brand	Operating profit margin (%)
VW Passenger Car	4.1%
Skoda	9.2%
SEAT	1.9%
VW Commercial	7.2%

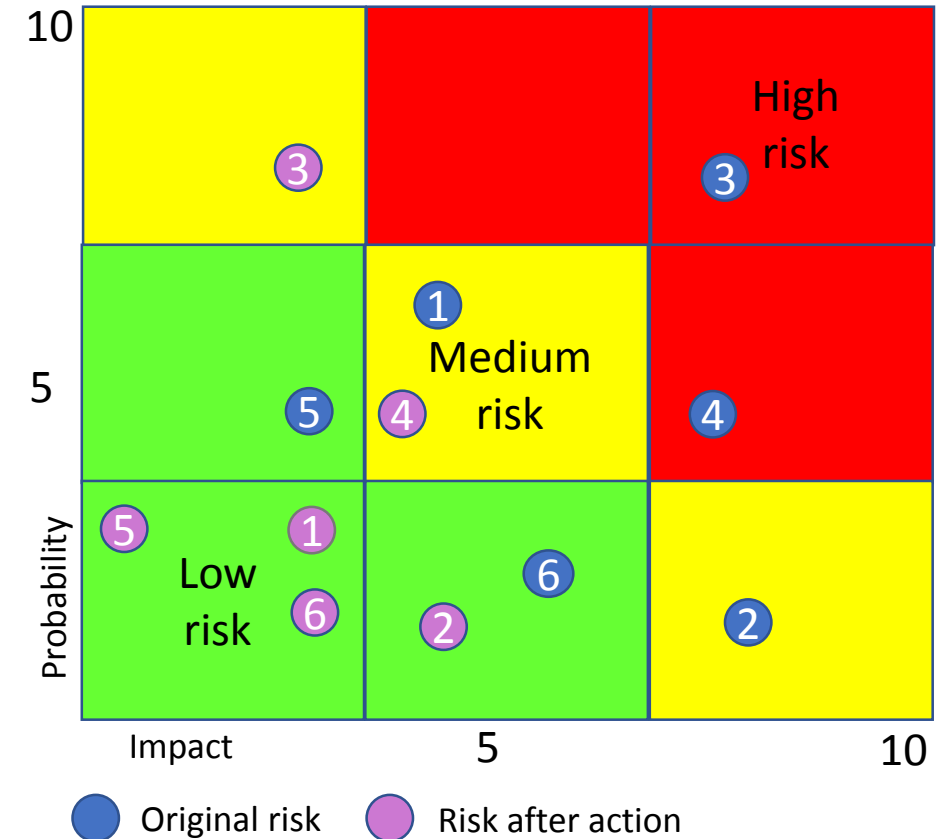
- VW Commercial Car(7.2%): High profit margin; at decline sage of product life cycle
- VW Passenger Car(4.1%): Low production margin
- SEAT(1.9%): Low profit margin with high growth potential

Volkswagen should maintain the price of cars in volume segment and cease the production of VW Passenger brand



Risk Management and Mitigation/Contingency Plan

Anticipated Risk		Mitigation/Contingency Plan
1	Wrong forecasting	Monitor any changes in information
2	Reputation loss due to project failure	Be transparent in all dealings and issues
3	Project not ready to launch on time	Transfer risk to project partners
4	Increase in urgency of the issues	Change the plan and break down into small and attainable tasks
5	Not enough resources for launching (e.g. employees and money)	Prioritize constraints and monitor the usage
6	Customers satisfaction for the project are far from expected	Provide more money or resource to certain countries and get feedback from them





Conclusion

1

Volkswagen should acquire or sign contracts with supplier 4 in the long run. VW AG should also consider the option of “Make” or “Partner”

2

Volkswagen should develop new engine and MEB technology

3

Volkswagen should secure contacts from artisanal mining operators for short-term & develop long-term contingency plan to maintain sufficient cobalt supply

4

Volkswagen should centralize functional units in the short term. The group could change the focus to premium cars segments in the long run

5

Volkswagen should maintain the price of cars in Volume Segment and cease the production of VW Passenger brand

THANK YOU !
We welcome any questions.

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