

IB Business Management - Business Expansion and Development

HL worksheet | VoltAuto Components | Choosing between organic growth, acquisition, and joint venture

Recommended time	Total marks	Focus
70 minutes	47	Methods of expansion, integration risk, finance, manufacturing scale

- Answer all questions.
- Use the case material and business terminology precisely.
- Show calculations clearly and round percentage answers to 1 decimal place where needed.
- Extended responses should analyse alternatives and reach a justified conclusion.

Section A - Multiple choice

Select the best answer in each case.

- When a business buys another firm outright to gain capacity and market share, this is: [1]
 - an acquisition
 - job enrichment
 - organic growth
 - crowdfunding
- A likely advantage of a joint venture compared with acquisition is: [1]
 - lower need for coordination
 - risk and cost sharing with a partner
 - complete control over all decisions
 - no legal agreements
- A key disadvantage of acquisition is often: [1]
 - slower market entry than organic growth in every case
 - integration problems between systems and cultures
 - impossible access to new assets
 - zero effect on debt
- If a firm expands by building a new production line at its own plant, it is using: [1]
 - organic growth
 - horizontal integration
 - franchising
 - divestment

5. In manufacturing, lower average cost can strengthen competitiveness because the firm can: [1]
- A. avoid quality control
 - B. lower prices or protect margins
 - C. stop innovation
 - D. remove fixed costs completely

Section B - Short answer

- B1. Explain one reason VoltAuto may prefer acquisition over organic growth. [3]
- B2. Explain one reason VoltAuto may prefer a joint venture over acquisition. [4]
- B3. Analyse one reason why rapid expansion in the EV components market may still create strategic risk. [5]

Section C - Data response / case study

Case stimulus: VoltAuto Components

VoltAuto Components supplies battery casings to electric vehicle manufacturers. Demand is rising quickly, and the business wants additional capacity within 18 months. Management is considering three options: extend its current plant, acquire smaller rival LithoForm, or form a joint venture with a manufacturing partner in Indonesia.

The board wants lower unit costs and faster market access, but the finance director is concerned about debt. The operations director also warns that an acquisition could create serious integration challenges because LithoForm uses different software and quality-control systems.

Table 1. Expansion options for VoltAuto

Option	Added capacity (000 units)	Upfront cost (\$m)	Forecast average cost per unit (\$)	Debt-to-equity after deal
Organic plant extension	180	28	43.5	0.58
Acquire LithoForm	260	46	40.8	0.91
Joint venture in Indonesia	220	24	42.1	0.63

- C1. VoltAuto's current average cost per unit is \$46.00. Using Table 1, calculate the percentage reduction in average cost if it acquires LithoForm. [4]
- C2. Analyse the trade-offs between the three expansion options shown in Table 1. [6]
- C3. Recommend the most suitable method of expansion for VoltAuto. [8]

Section D - Extended response

- D1. Evaluate whether external growth is superior to organic growth for manufacturing firms in fast-moving industries. [12]

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HL worksheet | VoltAuto Components | Answer key and marking guidance

Credit alternative answers where they show valid business understanding and are applied to the case.

Section A answers

Question	Answer	Why
1	A	Acquisition is external growth through purchase of another business.
2	B	Joint ventures share investment and risk across partners.
3	B	Acquisition can create major integration and culture challenges.
4	A	Building capacity internally is organic growth.
5	B	Scale efficiencies improve pricing flexibility and profitability.

Section B guidance

B1. Explain one reason VoltAuto may prefer acquisition over organic growth. [3]

Acquisition may give VoltAuto faster access to extra capacity, customers, and technical know-how than building capacity from scratch. In a fast-moving EV market, speed may matter because delaying expansion could allow rivals to secure contracts first.

Marking guidance

- 1 mark for identifying a valid reason such as speed, market access, or capability gain.
- Up to 2 marks for development linked to VoltAuto or the EV market.

B2. Explain one reason VoltAuto may prefer a joint venture over acquisition. [4]

A joint venture may reduce financial risk because the partner shares investment costs. It may also give VoltAuto local knowledge if expansion involves a new region. Compared with acquisition, this can lower debt and avoid some integration problems, although control is shared.

Marking guidance

- 1 mark for identifying a valid reason such as risk sharing, local knowledge, or lower debt.
- Up to 2 marks for development.
- 1 mark for an applied link to VoltAuto or the case.

B3. Analyse one reason why rapid expansion in the EV components market may still create strategic risk. [5]

Rapid expansion may look attractive because demand is growing, but it can create strategic risk if forecast demand changes or technology shifts quickly. VoltAuto could commit large funds to a capacity plan that becomes outdated if battery designs or customer specifications change. A strategy that is fast but inflexible may therefore weaken long-term returns.

Marking guidance

- 1 mark for identifying a strategic risk such as technology change, debt pressure, or overcapacity.
- Up to 3 marks for analytical development.
- 1 mark for linking to the EV components market or VoltAuto.

Section C guidance

C1. VoltAuto's current average cost per unit is \$46.00. Using Table 1, calculate the percentage reduction in average cost if it acquires LithoForm. [4]

Average cost would fall from \$46.00 to \$40.80, a decrease of \$5.20. Percentage reduction = $5.20 / 46.00 \times 100 = 11.3\%$ (approximately).

Marking guidance

- 1 mark for identifying the decrease of \$5.20.
- 2 marks for correct method and working.
- 1 mark for 11.3% or a very close rounding.

C2. Analyse the trade-offs between the three expansion options shown in Table 1. [6]

Acquisition offers the biggest capacity gain and the lowest forecast unit cost, but it is also the most expensive option and pushes debt-to-equity highest. Organic growth preserves control and lower integration risk, yet it adds the least capacity and may be slower. The joint venture provides a middle position: more capacity than organic growth with lower cost and debt than acquisition, but VoltAuto would have to share decision-making. The best option depends on how the board values speed, control, and financial risk.

Marking guidance

- Up to 2 marks for analysing acquisition.
- Up to 2 marks for analysing organic growth and/or joint venture.
- Up to 2 marks for explicit trade-off analysis across the options.

C3. Recommend the most suitable method of expansion for VoltAuto. [8]

The joint venture is the most suitable option. It improves capacity meaningfully, lowers average cost, and keeps debt at a more manageable level than acquisition. While acquisition offers the greatest unit-cost reduction, the board is already concerned about debt and integration risk. Organic growth is safer but may not expand fast enough for a rapidly growing EV market. The joint venture therefore gives VoltAuto a better balance of speed, cost improvement, and financial control.

Marking guidance

- Up to 3 marks for relevant analysis of at least two options.
- Up to 3 marks for a justified recommendation linked to debt, cost, risk, and speed.
- Up to 2 marks for evaluating limitations of the chosen option.

Section D guidance

D1. Evaluate whether external growth is superior to organic growth for manufacturing firms in fast-moving industries. [12]

External growth can be superior in fast-moving industries because it may provide speed, market share, know-how, and scale benefits more quickly than internal expansion. For a manufacturing firm facing rising EV demand, acquisition or joint venture can reduce the risk of missing market opportunities. However, external growth is not automatically superior. Integration failure, higher debt, culture clash, and weaker coordination can destroy value. Organic growth gives more control and may protect quality systems. Overall, external growth is strongest when time pressure is high and the business can manage integration; otherwise, organic growth may create more sustainable performance.

Marking guidance

- Strong responses analyse both external and organic growth with applied manufacturing examples.
- Relevant factors may include speed, integration, debt, control, technology change, and quality systems.
- Top responses reach a balanced final judgment about when external growth is or is not superior.

Marks	Descriptor
0	No relevant understanding is shown.
1-3	Limited knowledge and weak application; little analysis.
4-6	Some analysis and application, but judgment is partial.
7-9	Good analysis with developed case support and some balance.
10-12	Strong, balanced evaluation with integrated evidence and a clear justified decision.