Universidad de Navarra | SCHOOL OF ECONOMICS & BUSINESS

Admission Examination: Business and Economics Case Study

Practice Material

2026

Instructions:

- Read the following business case carefully.
- The examination consists of 5 multiple-choice questions.
- The recommended time to complete the examination is 25 minutes.
- Choose the single correct answer for each question.
- All questions carry the same weight.
- This document includes an answer key at the end, intended for individual study.

Case: EcoWrap's future

EcoWrap manufactures certified compostable packaging and bags for the restaurant and food retail sector. Founded six years ago, the company operates a single production plant and sells mainly through wholesale distributors. Its value proposition combines certified compostable materials, competitive prices, and reliable high-volume supply.

EcoWrap's founder believes demand for certified compostable packaging will keep growing as more restaurants and retail chains seek to comply with increasingly strict environmental regulations. However, the management team does not agree on the best way to increase production capacity and sales over the next two years.

Last year, EcoWrap sold 4,000,000 units (bags and containers) at an average price of €0.50 per unit. The average variable cost per unit was €0.30, including certified raw materials, direct labor, and packaging. Annual fixed costs totaled €600,000, including plant rent, compostability certification, and central administration. The company closed the year with an operating profit of €200,000.

EcoWrap is evaluating two strategic options to increase its capacity and sales. The board of directors has set the requirement that the chosen option recover the initial investment within a maximum of 3 years. For this case, the payback period will be calculated as: Initial Investment ÷ Annual Incremental Operating Profit. The company has €1 million in cash, enough to fund one of the two options, but not both, without taking on additional debt.

Option A: Build a Second Production Line

Under this option, EcoWrap would invest in a second production line at its existing plant. The initial investment would be €900,000, covering new machinery, line installation, and initial staff training. Management estimates that the new line would enable the sale of 2,000,000 additional units per year to new wholesale clients, at an average price of €0.55 per unit. The variable cost would be €0.32 per unit, slightly higher than the current average due to the learning curve during ramp-up.

In addition, the new line would entail €250,000 in additional annual fixed costs, including maintenance of the new equipment and additional shift supervisors.

Supporters of Option A argue that expanding the current plant keeps full control over quality and avoids any risk of integrating external processes. Critics point to execution risk: bringing a new production line online involves an adjustment period, and there is no guarantee that EcoWrap will secure enough new wholesale clients to make use of all the added capacity.

Option B: Acquire GreenPack Regional, a Smaller Competitor

Under this option, EcoWrap would acquire GreenPack Regional, a smaller compostable-packaging manufacturer with its own production plant and established distributor relationships. The acquisition price would be €700,000. The deal would add 1,500,000 units of existing annual sales, at an average price of €0.55 per unit. The variable cost would be €0.25 per unit, since GreenPack's equipment is older but efficient and low-cost to run. Integration would add €200,000 in annual fixed costs, including joint logistics and some administrative roles that would be kept temporarily duplicated.

Supporters of Option B point out that the acquisition brings revenue and clients immediately, without waiting for a ramp-up period. It could also generate synergies by sharing the distribution network. Critics warn that integrating an external plant carries risks: different quality standards, possible hidden costs in older equipment, and the need to recertify GreenPack's plant under the same compostability standard that underpins the EcoWrap brand.

Financial Constraints

The CFO warned that the decision should not be based solely on first-year profit, but must also account for integration risk and the implications for compostability certification, which underpins the brand's reputation.

Additional Market Information

A recent survey of 500 purchasing managers at restaurants and retail chains yielded the following results:

- 70% say compostability certification is one of their top three purchasing criteria.
- 55% consider reliable high-volume supply more important than price.
- 40% would consider consolidating their purchases with a single certified supplier.
- 63% prefer working with a supplier that has broad regional coverage.
- Among purchasing managers at large chains, 66% say they conduct on-site quality audits before confirming any supplier change.

Operational Issues

The operations team has identified an additional challenge. The current quality-control and certification processes are calibrated for EcoWrap's own plant. Integrating GreenPack's plant would require auditing and adapting its processes to maintain the same compostability seal. Building a second line, by contrast, keeps everything under one roof but requires an adjustment period and hiring specialized staff.

The CEO has asked the management team to recommend an option. She wants a decision that is financially sound but does not put the compostability certification that underpins the brand at risk. She has reminded them that “our customers trust us because we deliver on what we promise about our materials.”

Questions

1. What was EcoWrap's contribution margin per unit last year?
   a. €0.15
   b. €0.18
   c. €0.20
   d. €0.25

2. EcoWrap closed last year with an operating profit of €200,000. Its annual fixed costs were €600,000. Which of the following statements is correct?
   a. If sales volume fell by 25%, while the price and variable cost per unit remained constant, the company would still be profitable.
   b. If EcoWrap sold 1,000,000 fewer units, it would reach break-even.
   c. Fixed costs exceed operating profit, indicating a weak financial position.
   d. If the variable cost per unit rose to €0.35, the company would move into losses.

3. What is the expected annual incremental operating profit for Option A (the second production line)?
   a. €160,000
   b. €210,000
   c. €460,000
   d. €710,000

4. Option A requires an initial investment of €900,000 and generates an annual incremental operating profit of €210,000. Option B requires an initial investment of €700,000 and generates an annual incremental operating profit of €250,000. Which option or options meet the board's requirement of recovering the investment within a maximum of 3 years?
   a. Only Option A
   b. Only Option B
   c. Both Option A and Option B
   d. Neither option

5. Which recommendation is most consistent with the CEO's request for a decision that is "financially sound" without putting the compostability certification at risk?
   a. Reject both options; the execution and integration risks are too high in either case.
   b. Choose Option A because it avoids any integration risk and keeps full control over the certification process.
   c. Choose Option B, since it meets the payback requirement, provided EcoWrap successfully audits and certifies GreenPack's plant under the same compostability standard.
   d. Choose Option B solely because acquisitions always create value faster than organic growth.

Answer Key

1. **C**

Contribution margin = price − variable cost
Price = €0.50
Variable cost = €0.30
Contribution margin = €0.50 − €0.30 = €0.20

2. **B**

Break-even point = Fixed costs ÷ Contribution margin per unit
€600,000 ÷ €0.20 = 3,000,000 units
4,000,000 − 3,000,000 = 1,000,000 units above break-even

3. **B**

Additional revenue = 2,000,000 × €0.55 = €1,100,000
Variable costs = 2,000,000 × €0.32 = €640,000
Incremental operating profit = €1,100,000 − €640,000 − €250,000 = **€210,000**

4. **B**

Payback A = 900,000 / 210,000 ≈ 4.3 years **(fails)**.
Payback B = 700,000 / 250,000 = 2.8 years **(passes)**.

5. **C**
Option B meets the financial criterion; the most balanced recommendation is to choose it provided that the key operational risk—the recertification of the acquired plant—is successfully addressed.