Grade 12 A/L ICT · Lesson 7

7.10 Off-the-Shelf Packages, Gap Analysis and Business Process Reengineering

Syllabus 7.10. Instead of building software, an organisation can buy an **off-the-shelf package**. You weigh its **advantages and costs**, identify package **capabilities and workflows**, then use **business process gap analysis**, **business process mapping** and **business process reengineering (BPR)** to fit package and business together.

1. Package vs bespoke

Package	Advantage	Disadvantage
Off-the-shelf	Ready quickly, tested, lower initial cost, vendor support	May not fit all needs; licence fees; depends on vendor
Bespoke (custom)	Fits exactly, owned by organisation	Expensive, slow, more bugs at first

🧱 **Worked example: Compare 3-year costs. Package: buy Rs. 600,000 + customise Rs. 300,000 + Rs. 150,000/year. Bespoke: build Rs. 1,500,000 + Rs. 100,000/year.**
Package = Rs. 600,000 + Rs. 300,000 + 3 × Rs. 150,000 = **Rs. 1,350,000**. Bespoke = Rs. 1,500,000 + 3 × Rs. 100,000 = **Rs. 1,800,000**. The package is cheaper by **Rs. 450,000** over 3 years (investment + operational + maintenance).

2. Gap analysis, mapping and BPR

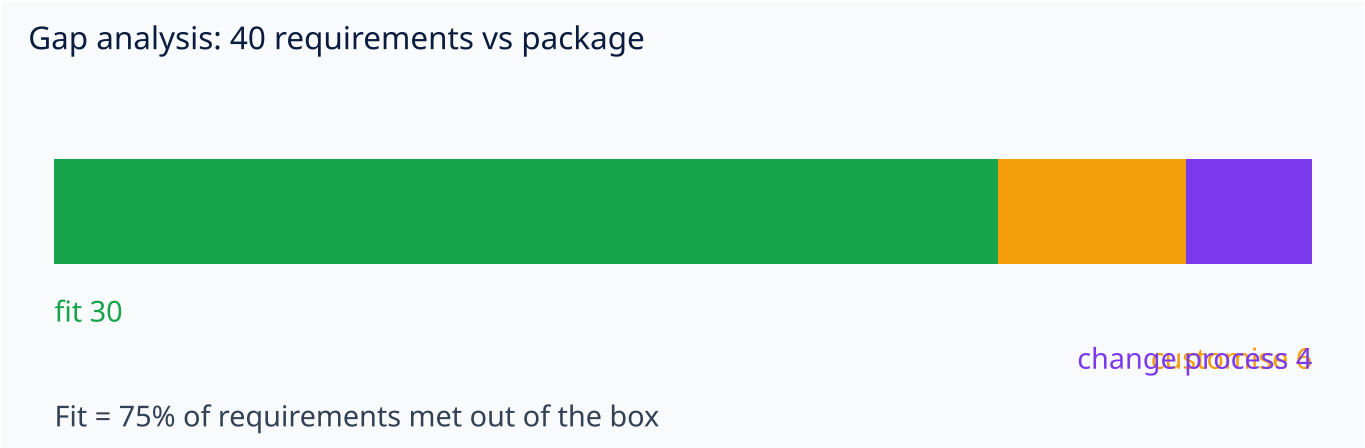
Capability study
List package features and its standard workflows.

Gap analysis
Compare each business requirement with the package: fit or gap.

Process mapping
Map each business activity onto a package workflow step.

BPR
Redesign business processes radically to fit the package and improve.

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Gap analysis result

🧱 **Worked example: A school lists 40 requirements. The package meets 30; 6 need customisation; the rest need a process change. Find the fit percentage and process changes.**
Fit = 30 ÷ 40 × 100 = **75%**. Process changes (BPR) = 40 − 30 − 6 = **4**.

💡 Gap → either customise the package or change the business process (BPR).

🚀 **Beyond the syllabus (2026 update)** *Not required for the exam – read for interest.* In 2026 most packages are SaaS: you subscribe, configure workflows online, and the vendor updates the software.

Key Words

Off-the-shelf package – Ready-made software sold to many users.

Bespoke software – Software built for one organisation.

Package capability – Feature the package provides.

Workflow – Ordered steps a package expects users to follow.

Gap analysis – Comparing business needs with package features.

Business process mapping – Linking business activities to package steps.

Business process reengineering – Radical redesign of business processes.

Customisation – Changing or configuring a package to fit needs.

Licence fee – Payment for the right to use software.

Investment cost – One-time cost to buy and set up.

Operational cost – Ongoing cost of running the system.

Maintenance cost – Cost of updates and support.

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Sample Q&A

1. Two advantages of off-the-shelf packages?

> **Answer:** Available quickly; already tested (also vendor support).

2. Two disadvantages?

> **Answer:** May not fit needs; ongoing licence fees and vendor dependence.

3. What is gap analysis?

> **Answer:** Comparing each requirement with package features to find gaps.

4. What is process mapping?

> **Answer:** Placing each business activity onto a package workflow step.

5. What is BPR?

> **Answer:** Radically redesigning business processes, often to fit a package.

6. Fit % for 30 of 40?

> **Answer:** 75%.

MCQ

1. Ready-made software sold to many organisations is

A. a data dictionary
B. a context diagram
C. bespoke software
D. a pilot
E. an off-the-shelf package

2. Comparing requirements with package features is

A. LDS
B. payback
C. gap analysis
D. unit testing
E. direct changeover

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3. Radical redesign of business processes is

A. white box testing
B. business process reengineering
C. phased changeover
D. prototyping
E. data migration

4. Linking each business activity to a package step is

A. feasibility
B. acceptance
C. business process mapping
D. black box testing
E. encryption

5. Fit % when 30 of 40 requirements are met

A. 75%
B. 30%
C. 70%
D. 80%
E. 40%

6. 3-year cost of the package in the example

A. Rs. 600,000
B. Rs. 1,050,000
C. Rs. 1,350,000
D. Rs. 1,500,000
E. Rs. 1,800,000

7. A main DISADVANTAGE of a package is

A. no one else uses it
B. it may not fit every business need
C. it takes years to build
D. it is never tested
E. it has no vendor

8. Ongoing licence and support payments are

A. investment only
B. test cases
C. tangible benefits
D. payback period
E. operational and maintenance costs

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9. Which term means: “Ready-made software sold to many users”?

A. Off-the-shelf package
B. Operational cost
C. Customisation
D. Package capability
E. Business process mapping

10. Which term means: “Software built for one organisation”?

A. Bespoke software
B. Maintenance cost
C. Workflow
D. Business process reengineering
E. Licence fee

11. Which term means: “Feature the package provides”?

A. Off-the-shelf package
B. Gap analysis
C. Investment cost
D. Package capability
E. Customisation

12. Which term means: “Ordered steps a package expects users to follow”?

A. Operational cost
B. Bespoke software
C. Workflow
D. Business process mapping
E. Licence fee

13. Which term means: “Comparing business needs with package features”?

A. Package capability
B. Gap analysis
C. Investment cost
D. Maintenance cost
E. Business process reengineering

14. Which term means: “Linking business activities to package steps”?

A. Customisation
B. Business process mapping
C. Operational cost
D. Workflow
E. Off-the-shelf package

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15. Which term means: “Radical redesign of business processes”?

A. Maintenance cost
B. Bespoke software
C. Licence fee
D. Business process reengineering
E. Gap analysis

16. Which term means: “Changing or configuring a package to fit needs”?

A. Customisation
B. Investment cost
C. Business process mapping
D. Package capability
E. Off-the-shelf package

17. Which term means: “Payment for the right to use software”?

A. Operational cost
B. Bespoke software
C. Business process reengineering
D. Workflow
E. Licence fee

18. Which term means: “One-time cost to buy and set up”?

A. Customisation
B. Package capability
C. Maintenance cost
D. Investment cost
E. Gap analysis

19. Which term means: “Ongoing cost of running the system”?

A. Business process mapping
B. Licence fee
C. Workflow
D. Off-the-shelf package
E. Operational cost

20. Which term means: “Cost of updates and support”?

A. Gap analysis
B. Investment cost
C. Business process reengineering
D. Maintenance cost
E. Bespoke software

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Structured Questions

1. Give two advantages and two disadvantages of off-the-shelf packages. *(2 marks)*

> Fast, tested; may not fit, licence fees.

2. Compare 3-year costs of package and bespoke in the example. *(3 marks)*

> Package Rs. 1,350,000; bespoke Rs. 1,800,000; package cheaper by Rs. 450,000.

3. Explain gap analysis and its outcomes. *(2 marks)*

> Requirement vs feature; fit, customise or change process.

4. Calculate fit % and process changes for the school example. *(2 marks)*

> 75%; 4 process changes.

5. Distinguish process mapping and BPR. *(2 marks)*

> Mapping links activities to package steps; BPR redesigns processes.

Summary

- Packages are fast and tested but may not fit.
- Compare investment, operational and maintenance costs.
- Gap analysis finds fit and gaps.
- Mapping places activities on workflows.
- BPR changes the business to fit and improve.

MCQ answer key – 7.10

1. **E** – Package.
2. **C** – Gap analysis.
3. **B** – BPR.
4. **C** – Mapping.
5. **A** – 30/40.
6. **C** – Sum.
7. **B** – Fit.
8. **E** – Ongoing.
9. **A** – Off-the-shelf package – Ready-made software sold to many users.
10. **A** – Bespoke software – Software built for one organisation.
11. **D** – Package capability – Feature the package provides.
12. **C** – Workflow – Ordered steps a package expects users to follow.
13. **B** – Gap analysis – Comparing business needs with package features.
14. **B** – Business process mapping – Linking business activities to package steps.
15. **D** – Business process reengineering – Radical redesign of business processes.

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16. **A** – Customisation – Changing or configuring a package to fit needs.
17. **E** – Licence fee – Payment for the right to use software.
18. **D** – Investment cost – One-time cost to buy and set up.
19. **E** – Operational cost – Ongoing cost of running the system.
20. **D** – Maintenance cost – Cost of updates and support.

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