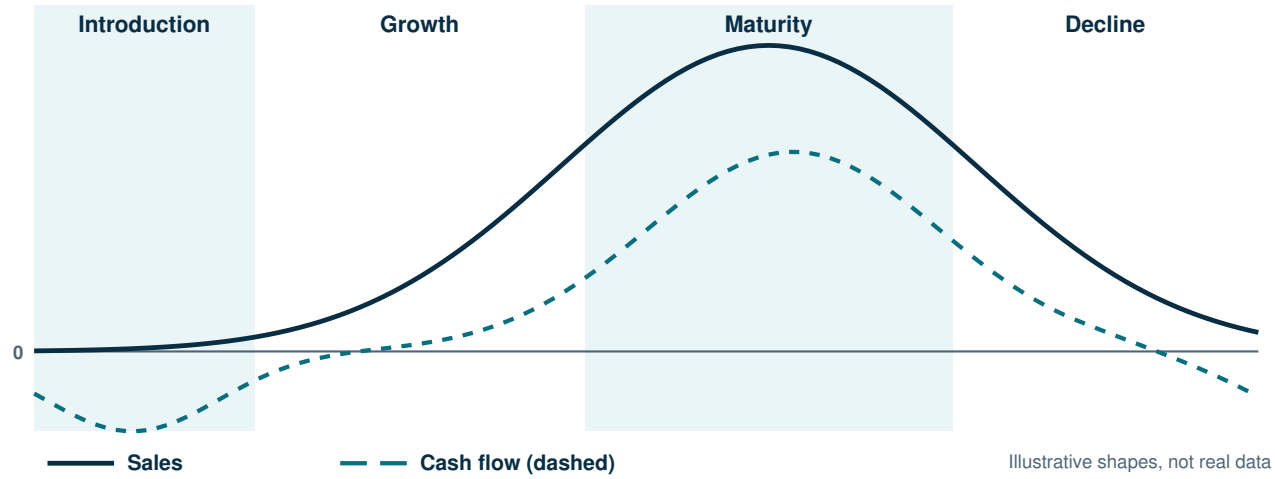
Product life cycle and the BCG matrix

MODULE 1 | PART E.2 | STUDENT COMPANION

Organisations hold a **portfolio** of products to spread risk, just as investors hold a portfolio of shares. Product risks include uncertain demand, volumes, prices, investment needs, competitors and substitutes, and obsolescence.

The product life cycle



Most useful for consumer products with short to medium lives (electronics, cars); less useful for commodities such as iron ore or oil.

Each stage at a glance

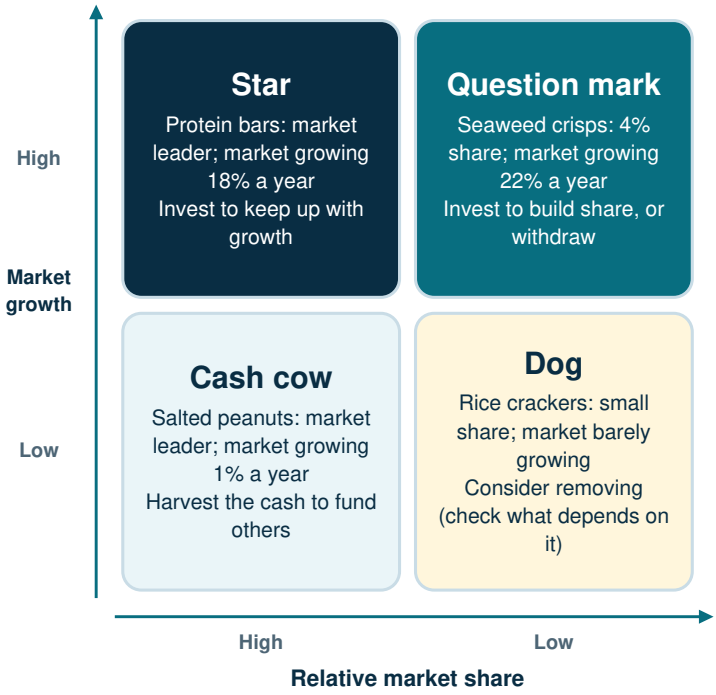
Stage	Market	Cash flow and profit	Typical strategy
Introduction	Risky; high prices, low demand; no guarantee of acceptance	Heavy cash investment; losses likely	Price high to recover R&D, or penetration pricing to build dominance
Growth	Rapid expansion; competitors enter; prices fall	Investment in capacity and marketing; can be the most profitable stage	Build share and capacity
Maturity	Growth slows; brands settle; consolidation; price competition	Little new investment; cash flows rise; profits start to fall	Defend share; harvest cash for new products
Decline	Saturation, obsolescence, substitutes; weaker suppliers exit	Revenue falls; cash flow may turn negative (warranty, parts, service)	Manage the run-down; meet service obligations

Case note: Nintendo Wii

Nintendo's Wii went on sale at the end of 2006 and was hard to find in shops for months because demand outran production. It sold more than 100 million units over its life. As the market saturated, sales slowed; its successor, the Wii U, launched in late 2012, and Wii production in Japan ended in 2013. Nintendo had the next product ready as the old one declined: portfolio thinking in action.

Sources: Engadget and Fortune/CNN reporting on Wii shortages, 2007; lifetime sales as reported from Nintendo results (about 101.6 million units); Wii U launch, November 2012.

The BCG growth share matrix



Coastline Snacks (imagined)

High relative share sits on the left in the classic drawing. Relative market share compares a product's share with its strongest rival's.

Cash cows fund question marks and stars. Dogs usually cannot support investment elsewhere.

A snapshot: unlike the life cycle, the matrix has no time element.

Should Coastline drop the rice crackers? Not automatically. If supermarkets stock Coastline's range because it is complete, dropping a dog could cost shelf space for the stars. The matrix starts the discussion; it does not end it.

Life cycle versus BCG matrix

Product life cycle	BCG matrix
Tells a story over time	A snapshot with no time element
Assumes products are born, grow, mature and decline	Does not assume every product grows and matures
Explains cash and profit by stage	Uses market growth (external) and relative share (internal)

Practice questions

MODULE 1 | PART E.2 | TRY THESE BEFORE THE WORKED ANSWERS

Question 1 - Which life cycle stage?

Situation	Stage and one reason
(a) Sales are still rising slowly; most buyers already own one; rivals cut prices to hold share	
(b) A brand-new product with few buyers, a high price and heavy launch spending	
(c) Sales fall each year; the company still honours warranties and supplies spare parts	
(d) Sales are doubling each year and several new competitors have entered	
(e) A product whose price has fallen sharply as manufacturers achieve economies of scale	

Question 2 - Place the products in the matrix

Product	Market growth	Our share vs strongest rival	Quadrant and strategy
Kids' smartwatch	25% a year	We hold 5%; leader holds 30%	
Desk lamp	1% a year	We lead: 35% vs 15%	
Wireless earbuds	20% a year	We lead: 28% vs 20%	
Fax machine	-8% a year	We hold 3%; leader holds 40%	

Question 3 - Only stars?

A company's portfolio consists entirely of stars. Explain why this could be dangerous, using both the life cycle and the BCG matrix.

Worked answers

MODULE 1 | PART E.2 | WORKED ANSWERS - ATTEMPT THE QUESTIONS FIRST

Question 1 - Which life cycle stage?

Situation	Answer
(a)	Maturity: slow growth, saturation, price competition
(b)	Introduction: risky, high price, low demand, heavy investment
(c)	Decline: falling sales, ongoing service obligations (cash flow may be negative)
(d)	Growth: rapid market expansion and new entrants
(e)	Growth: prices fall through competition and economies of scale

Question 2 - Place the products in the matrix

Product	Answer
Kids' smartwatch	Question mark (low share, high growth): invest to build share or withdraw
Desk lamp	Cash cow (high share, low growth): harvest cash
Wireless earbuds	Star (high share, high growth): invest to keep pace
Fax machine	Dog (low share, shrinking market): consider removal, after checking dependencies

Question 3 - Only stars?

Stars need heavy investment to keep up with market growth, so a portfolio of only stars may run short of cash. There are no cash cows to fund them. In life cycle terms, all products are in the growth stage together, so they may also mature and decline together, with nothing in development to replace them. A balanced portfolio mixes new and mature products so that mature products fund the next generation.