

Connections with product life cycle

You have now studied all the elements of the marketing mix and analysed the importance of their alignment – both with other elements of the marketing mix and with the business strategy. This section covers the different relations between the product life cycle of a good or service and the actions needed to implement each element of the marketing mix, considering the stages of the product life cycle.

The relationship between product life cycle and marketing mix

The product life cycle is a tool to help businesses plan marketing strategies. The marketing mix can be adapted during the product life cycle, as seen in **Table 1**.

Table 1. Changes to the marketing mix during the product life cycle.

	R&D	Introduction	Growth	Maturity	Decline
Product	Research product design and prototype the product.	Launch new products to the market.	Make small improvements to meet consumers' needs and wants.	Introduce some updates to a product to extend its demand and the cash that it is making.	Develop new product to replace product in decline.
Price	Research competitors' pricing strategies and product costs to determine own pricing strategy.	Use penetration or premium pricing, depending on the product and market.	Increase the price of the product.	Use different pricing strategies to maintain sales and prevent new competition from entering the market.	Reduce prices to eliminate the stock of the product.

	R&D	Introduction	Growth	Maturity	Decline
Promotion	Research promotion options (ATL, BTL, TTL)	Use informative promotion to create product awareness among consumers.	Use persuasive promotion to convince customers to repeat the purchase of the product.	Use promotion strategies to increase brand loyalty.	Very limited. Promotional budgets are cut in this stage.
Place	Research distribution channels.	Start with a specific, small number of shops; perhaps direct distribution.	Increase the number of shops and markets.	Expand to a large number of shops; all possible outlets used.	Consider using discount retailers.
People	Use networks to recruit the best employees.	Use influencers to raise awareness, for example, on social media.	Focus on excellent customer service to build loyalty and satisfaction.	Focus on customer service to build loyalty and satisfaction.	Move most capable employees to new projects; service phased out.
Processes	Research efficient and easy ordering and payments.	Adjust processes after experience with first customers.	Maintain best processes; adapt to new process options.	Maintain and keep best processes.	Maintain best processes; apply experience to new services.
Physical evidence	Research customer experience design.	Adjust designs as customers engage with service.	Maintain best designs and experiences; adapt to new ideas to improve customer experience further.	Maintain best designs.	Maintain best designs; apply experience to new services.

Activity

Learner profile: Knowledgeable

Approaches to learning: Thinking skills (transfer)

Read the following statements about businesses and their marketing mix. In each, there is something not quite right about their choices. Can you identify the problem in each case?

1. A dairy company is launching a new product to the market. It plans loyalty cards as the only promotion.
2. A luxury car has experienced lower sales recently due to innovative new competitors. The company is planning to open a new store in an expensive shopping centre to continue selling the same vehicle.
3. A famous brand of typewriter, now almost completely replaced by personal computers, has planned television advertising to eliminate their stock of typewriters.
4. A company producing furniture for businesses has experienced a huge increase in sales. It is planning to reduce the price to increase sales further.

The relationship between product life cycle and the product portfolio

The product life cycle is related to how the product portfolio of a company may evolve over time. The Boston Consulting Group (BCG) matrix, which you learned about in [Section 4.1.6 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/tool-bcg-matrix-id-37441\)](#), can be linked to the product life cycle. **Figure 1** illustrates this as follows:

- Products classified as question marks (or problem children) in the BCG matrix could be in the introduction stage of the product life cycle.
- Products classified as stars in the BCG matrix could be in the growth stage of the product life cycle.
- Products classified as cash cows in the BCG matrix could be in the maturity stage of the product life cycle.
- Products classified as dogs in the BCG matrix could be in the decline stage of the product life cycle.

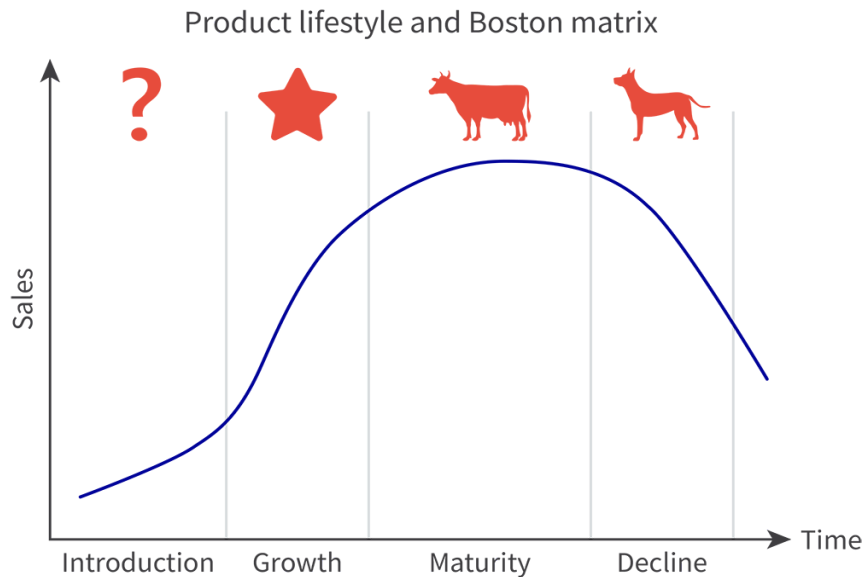


Figure 1. One possible relationship between product life cycle and product portfolio as expressed by the BCG matrix categories.

However, these links between the BCG matrix categories and the product life cycle are not absolute. The BCG matrix refers to both market share and market growth. But the product life cycle refers only to sales and the growth rate in sales of the individual product. Can you imagine how one of the classifications could be moved to a different stage of the product life cycle?

Activity

Learner profile: Thinkers
Approaches to learning: Thinking skills (critical thinking)

Read the information in **Table 2** about four goods (W, X, Y and Z) and complete the tasks below.

Table 2. Sales figures for goods W, X, Y and Z

Product	Total market sales last year	Total market sales this year	Product sales this year
Good W	170	177	98
Good X	110	105	6
Good Y	22	43	31
Good Z	41	66	4

1. Classify the goods shown in the table using the BCG matrix ([Section 4.1.6 \(/study/app/y12-business-management-a-hl-may-2024/sid-351-cid-174702/book/tool-bcg-matrix-id-37441\)\)](#)).
2. Justify which stage(s) of the product life cycle might be applicable to each good, using the information in the table and your BCG matrix classification.

The relationship between product life cycle, investment, profit and cash flow

The product life cycle (PLC) model is also a good instrument for making financial decisions. The PLC can, for example, show in which stages businesses will need to invest more, when they will not suffer liquidity problems and when they will be able to make profit. **Table 3** shows the relationship between all these elements.

Table 3. Relationship between product life cycle, investment, cash flow and profit.

	R&D	Introduction	Growth	Maturity	Dec
Investment/ spending	High Market research Research and development Preparing production	Medium Promotion Repayment of investment costs Production	Medium Promotion Repayment of investment costs Production	Low Reduced spending on promotion	None
Cash flow	Negative	Negative	Positive/high	Positive/high	Positiv
Profit or loss	Low	Low	Break even	Profit	Profit

Activity

Learner profile: Communicators
Approaches to learning: Communication skills

Use everything you have learned in this section about the relationship between the product life cycle, profit, cash flow, and investment.

Draw a product life cycle graph that shows the relationship between the product life cycle stages and profit, cash flow, and investment.