

Product Analysis and Development

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Lecture 6

جامعة الجميع الذكية

ENT 614

New Product Development (Part One)



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In the previous
lecture

New Product development Part one

- Types of Product Strategies
- Elements of a Good Product Strategy
- 6 Key Ingredients for a Successful Product Strategy
- Product Strategies for Businesses



Product Life Cycle

Topics covered :

- What Is a Product Life Cycle?
- The Importance of Product Life Cycle
- 5 Stages of the Product Life Cycle
- Factors Affecting the Product Life Cycle
- Managing the Product Life Cycle



The product lifecycle

- The product lifecycle is a model that describes **the stages** a product goes through from its development to its eventual decline.
- It is used by businesses to plan and manage the growth and decline of their products.
- Businesses and organizations can make informed decisions about their products when they have a better understanding of **the product lifecycle**.



Benefits of understanding product Lifecycle

- 1) Accurately **forecasting the market trends**
- 2) Allocating **resources** more effectively, such as **investing** in product development during the introduction stage and **reducing costs** during the decline stage
- 3) Making informed decisions about their **product portfolio**, such as which products to continue developing and which to discontinue
- 4) Provides valuable insight into a **company's competitors** and product offerings.



Product Lifecycle Concept

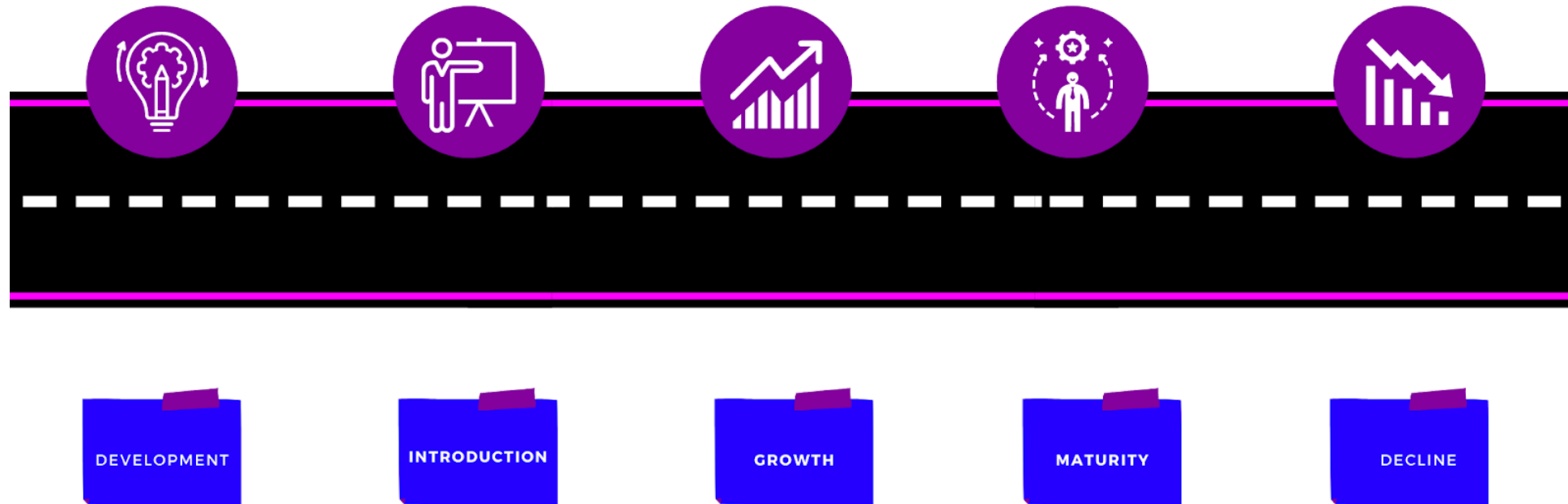
- ❑ The concept of the **five stages** of the product lifecycle is widely attributed to **Harvard Business School** professor Theodore Levitt. Levitt first introduced the concept in 1965 in his article “Exploit the Product Life Cycle.”
- ❑ The article provided a framework for understanding how a product progresses through its lifecycle and the challenges and opportunities that businesses face at each stage.



Stages of Product Lifecycle

5 STAGES OF PRODUCT LIFE-CYCLE

1. Development
2. Introduction
3. Growth
4. Maturity
5. Decline



What Is a Product Life Cycle?

➤ As the name indicates, the product life cycle is **the lifespan of a product**. It includes the time from product launch until its withdrawal from the market.

For example, **CD players**

Their sales decreased significantly in the mid-2000s. Despite the discontinued CD players, you can still use them for another decade.



Product Lifecycle Concept (PLC)

- The point is that this serves as an excellent example of a product whose life cycle has reached its endpoint
- The product life cycle is **continuous**.
- Companies usually rely on **product life cycle analysis** to understand **market demands**.

They implement strategies to increase their product lifespan.

Product Lifecycle Concept (PLC)

- The product life cycle is **helpful for managers, developers, and designers.**
- Identifying the life cycle stage the product is in, offers enough insights.
- The insights include increasing **that stage's longevity** and implementing strategies that can **keep the product from declining.**

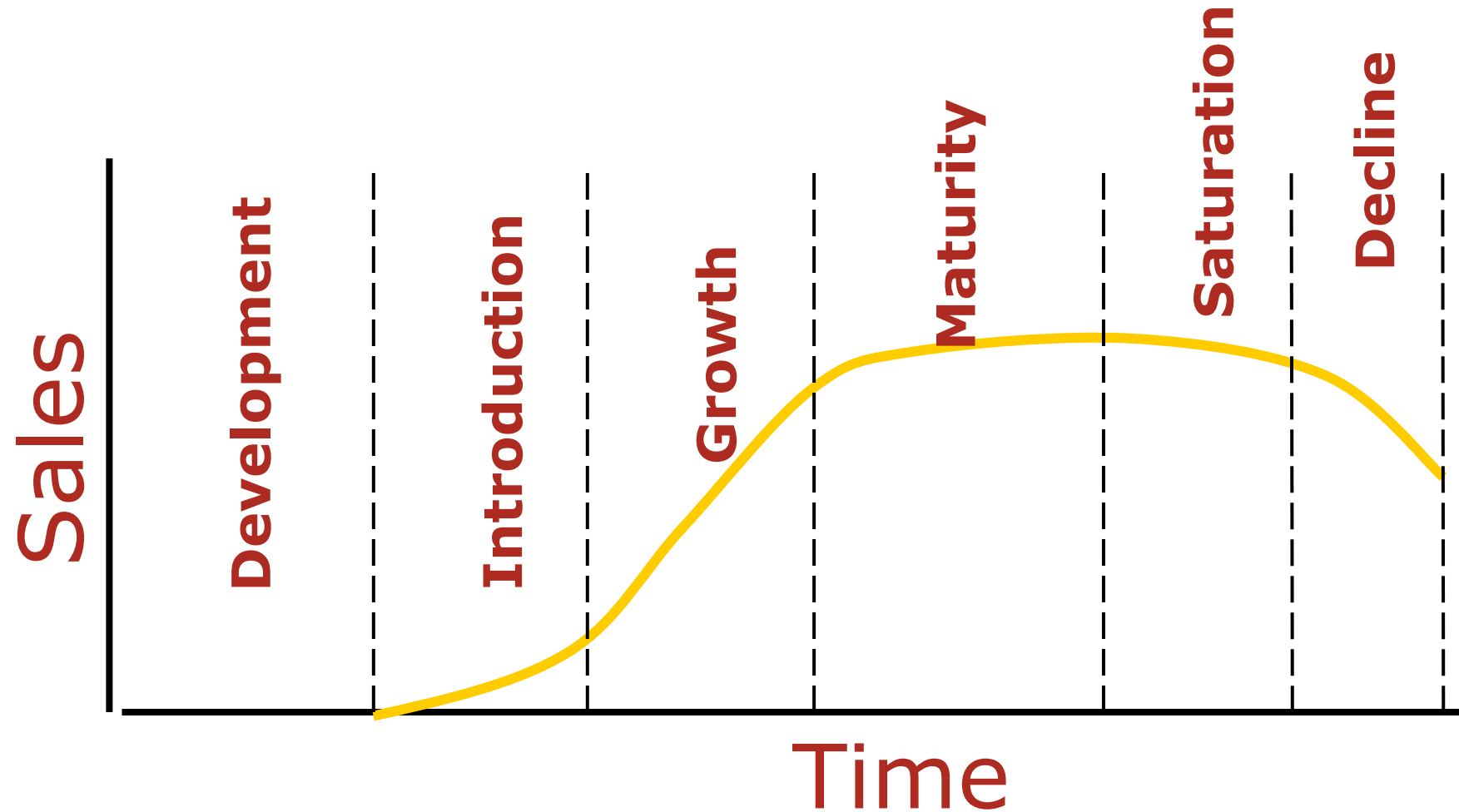
key advantages of the product life cycle

- **Sales Forecast:** Sales indicates the product's lifespan. Improving sales maximizes the life cycle of a product.
- **Effective Planning:** Once the company can predict sales performance, it becomes easier to plan and implement strategies that benefit the company in the long run.
- **Competitive Advantage:** The product life cycle helps companies compete effectively since the stage of the product is identified. And then, you can implement a set of strategies accordingly.

key advantages of the product life cycle

- **Decision Making:** The product life cycle can help the company make crucial decisions related to product development. The essential choices include upgrades, improvement, and additional features.
- **Target Audience:** The product life cycle helps target the right audience and identifies if the product meets their needs. In case of decreased sales, you can also determine the focus-reshifting of the target population

The Stages of the Product Life Cycle



Stages of Product Lifecycle PLC

(Stage 1: Development)

This is the stage in which a new product is **conceptualized** and **developed**. During this stage, a company will invest in research and development to create a product that meets the needs of its target market.



(Stage 1: Development)



The two phases under the Development stage are:

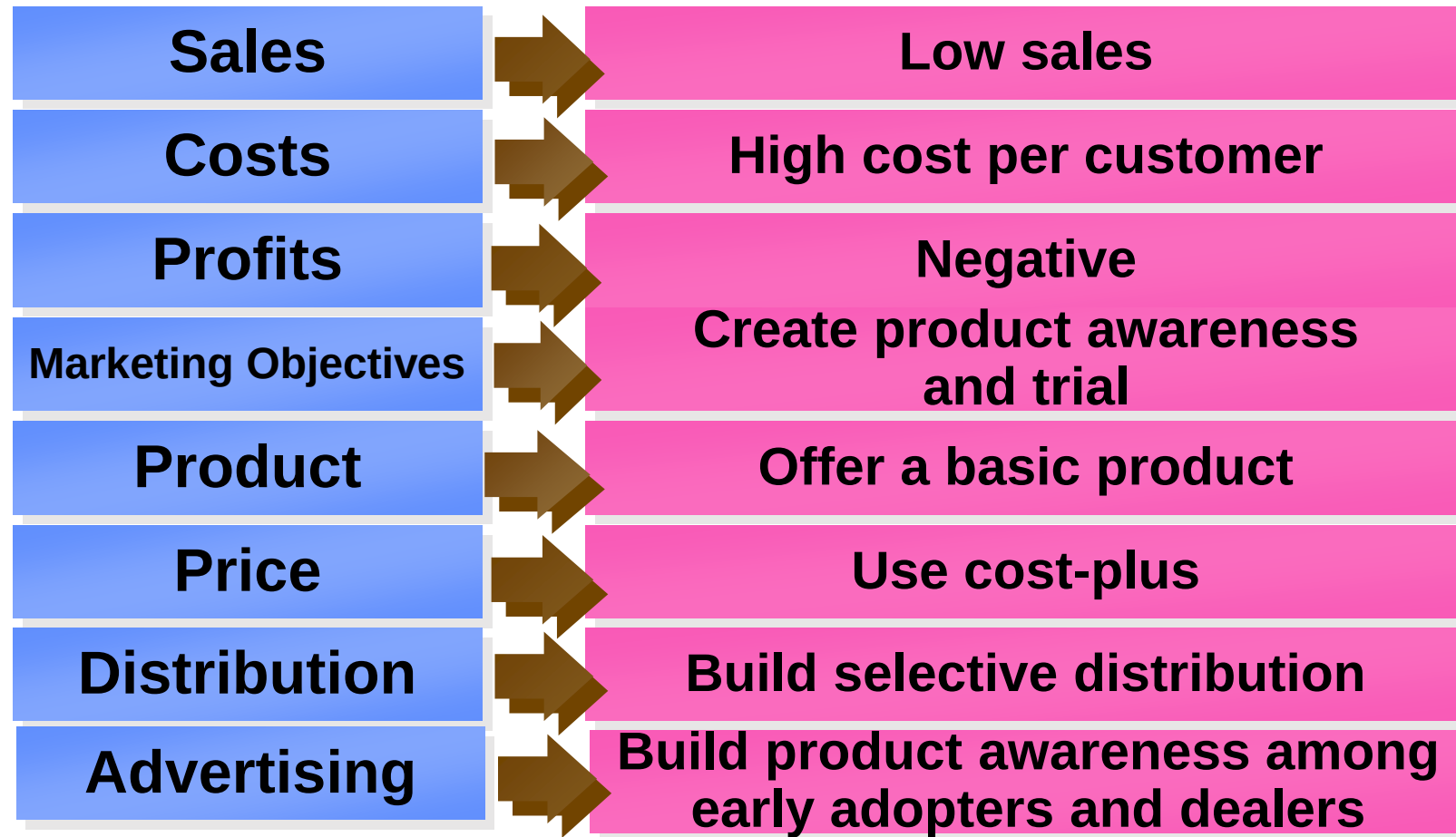
- **Conceptualization and Research Phase:** During this stage, Elon Musk and the team at Tesla began to conceptualize the idea of an all-electric luxury car. They conducted extensive research into the electric vehicle market and the needs and wants of potential customers.
- **Design and Prototyping Phase:** During this stage, Tesla's engineers and designers worked to create a design for the Model S. Prototypes of the car were built to test its performance, reliability, and safety features.

Stage 1: Development

- ❑ Development is when the **cost** of production keeps on **rising** while there is **no revenue** generated.
- ❑ Some products require years of research and tons of capital investment. And others are quicker to develop and launch in the market.
- ❑ At this stage of the product lifecycle, **the risk is very high**. Hence, funding is limited.

Thus, many companies use the strategy to direct the revenue generated from their current products toward investing in another startup.

Stage 1: Development



Stage 2: Introduction

The introduction is when the product development has almost reached its end, and it's time to market the product and create awareness about its launch.

- ❑ Unlike the previous stage, the **marketing costs** are higher in this product lifecycle stage. It becomes **crucial** to reach out to potential clients and customers.

Stage 2: Introduction

There are two phases under this stage:



Market testing and launch phase: Prior to the launch of the iPhone, Apple conducted extensive market research to test the product and gauge interest from potential customers. The iPhone was then officially launched and made available for purchase.

Early adopter phase: During this stage, the iPhone was primarily adopted by early adopters and technology enthusiasts. Sales were modest but growing, as people became more familiar with the product and its features.

Marketing strategies during the introduction stage: Apple included high-profile advertising campaigns, demonstrations in Apple retail stores, and strategic partnerships with major carriers

Introduction Stage: Marketing Strategies

Promotion

High

Low

High

Price

Low

**Rapid-
skimming
strategy**

**Slow-
skimming
strategy**

**Rapid-
penetration
strategy**

**Slow-
penetration
strategy**

Stage 3: Growth

At this stage, customers finally welcome the product.

Your business competes to increase its market share because other companies know your product and its place in the market.

If there are many competitors, your product's price is likely less. However, suppose your product is innovative with lesser competition. In such scenarios, the prices of your product may remain high for a longer time

Marketing strategies during the GROWTH stage: Extensive Marketing Campaigns

Stage 3: Growth



Mass Market Adoption Phase: The smartphone industry saw mass market adoption in the late 2000s and early 2010s. This was largely due to the increasing affordability of the devices and the widespread availability of mobile internet access.

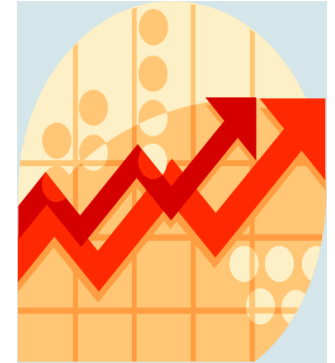
Expansion of Product Offerings: Manufacturers began to offer phones in different sizes, with varying levels of processing power and storage capacity, and with different operating systems.

Marketing Strategies: Smartphone manufacturers ran extensive advertising campaigns in traditional media such as television, print, and outdoor advertising, as well as in digital media such as online advertisements, social media, and email

Stage 3: Growth

Sales	Rapidly rising sales
Costs	Average cost per customer
Profits	Rising profits
Marketing Objectives	Maximize market share
Product	Offer product extensions, service, warranty
Price	Price to penetrate market
Distribution	Build intensive distribution
Advertising	Build awareness and interest in the mass market

Growth Stage: Marketing Strategies



- Improve product quality and add new product features and improved styling
- Add new models and flanker products
- Enter new market segments
- Increase distribution coverage and enter new distribution channels
- Shift from product-awareness advertising to product-preference advertising
- Lower prices to attract next layer of price-sensitive buyers



Stage 4: Maturity

Maturity is the stage of the product lifecycle where your **sales will slow down** or, in some cases, **even stop**. It results from **increased competition** to maintain your market share and saturation.

We call this the '**shake-off point**,' when less successful competitors exit the market.

Companies will likely alter or develop a new product to cater to different consumer needs. You strategically use innovation to modify the product and maintain the market share.

Prices are likely to decline to meet high competition. Production costs have decreased due to higher efficiency. **You don't require additional funding at this stage**

Stage 4: Maturity



Stabilization of Sales and Market Share: During the Maturity stage, the sales of personal computers stabilized, as the market became saturated and the demand for new computers began to level off.

Cost-cutting and Product Improvement Phase: In response to the stabilization of sales, PC manufacturers began to focus on cost-cutting and product improvement. This involved streamlining their operations, reducing the cost of materials and components, and improving the efficiency of their manufacturing processes.

Marketing strategies: During this stage, PC manufacturers shifted their marketing strategies away from the aggressive tactics they used during the Growth stage. Instead, they focused on promoting the reliability and affordability of their products, and on differentiating themselves from their competitors.

Stage 4: Maturity



Maturity Stage: Marketing Strategies

–Market Modification

- Expand number of brand users by:**

- Converting nonusers
- Entering new market segments
- Winning competitors' customers

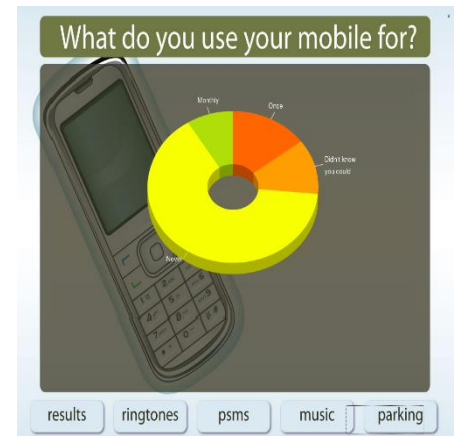
- Convince current users to increase usage by:**

- Using the product on more occasions
- Using more of the product on each occasion
- Using the product in new ways



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Volume = Number of brand users X Usage Rate per user



Maturity Stage: Marketing Strategies

–Product modification

- Quality improvement: Increasing product's functional performance-durability, reliability, speed, taste.
- Feature improvement: Adding new features that expand the product's versatility, safety, or convenience.
- Style improvement: Increasing product's aesthetic appeal.

–Marketing-Mix Modification

- Prices:
- Distribution
- Advertising
- Sales promotion
- Personal selling
- Services



Stage 5: Decline

The product lifecycle stage is associated with **a decline in revenue**, resulting from several factors.

Factors include market saturation, increased competition, decreased demand, technological evolution, or changing user needs.



Stage 5: Decline

Decreasing Sales and Market Share: During the Decline stage, the sales of floppy disks rapidly declined as newer and more advanced storage technologies became available. As a result, their market share also declined, as customers turned to other options such as USB drives and cloud storage.

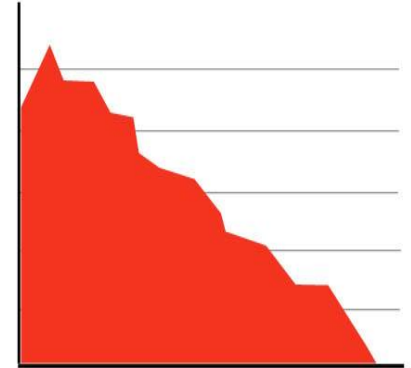
Phasing out and Retirement of the Product: In response to the decreasing sales and market share, manufacturers of floppy disks began to phase out the production of the product. This involved reducing the number of factories producing floppy disks and gradually discontinuing the production of the product altogether.

Marketing strategies: During this stage, the strategies for floppy disks shifted from promotion to liquidation. This involved heavily discounting the product to clear inventory, and promoting its retirement to encourage customers to switch to newer technologies.

Stage 5: Decline

Sales	➔	Declining sales
Costs	➔	Low cost per customer
Profits	➔	Declining profits
Marketing Objectives	➔	Reduce expenditure and milk the brand
Product	➔	Phase out weak items
Price	➔	Cut price
Distribution	➔	Go selective: phase out unprofitable outlets
Advertising	➔	Reduce to level needed to retain hard-core loyal customers

Decline Stage: Marketing Strategies



- Increase firm's investment (to dominate the market and strengthen its competitive position)
- Maintain the firm's investment level until the uncertainties about the industry are resolved.
- Decrease the firm's investment level selectively by dropping unprofitable customer groups, while simultaneously strengthening the firm's investment in lucrative niches
- Harvesting (“milking”) the firm's investment to recover cash quickly
- Divesting the business quickly by disposing of its assets as advantageously as possible.



PLC- Important Observations



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- Individual brands may not follow this pattern
 - Sometimes a product may crash and not get to the maturity stage
- Product Life Cycle - length of time at each stage - varies
 - depends on the products
 - can be a few months in each stage
 - or it can be years
- Generally speaking, due to the
 - Competitive Environment
 - Technological Environment
 - The PLC is getting shorter

Factors Affecting the Product Life Cycle

Competition

- The level of competition in the market can impact the rate at which a product moves through each stage of the lifecycle.
- For example, a product that is in a highly competitive market may see its sales decline more rapidly than a product in a less one.

Factors Affecting the Product Life Cycle

Consumer Preferences and Behavior

- Changes in consumer preferences can impact the demand for a product, and shifts in the consumer behavior can impact the way that customers use and purchase the product.
- For example, if a product becomes outdated or less popular, it may see its sales decline, even if there is no direct competition.

Factors Affecting the Product Life Cycle

Technological advancements

- New technologies can create new products and make existing products obsolete.
- For example, the advent of digital storage technologies has led to the decline of the floppy disk.

Economic factors

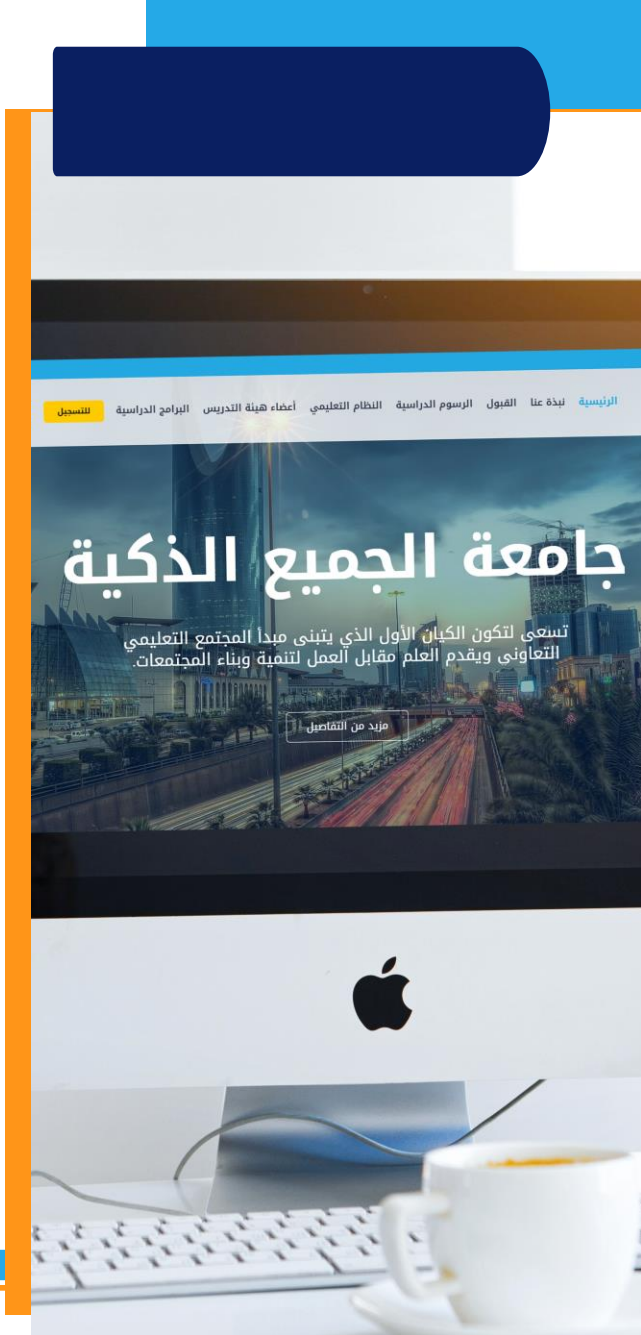
- Economic factors, such as changes in the overall economy, shifts in consumer spending patterns, and changes in the cost of materials and labor, can also impact the product lifecycle.
- For example, a recession may lead to a decline in consumer spending, and a decrease in demand for a product.

Managing the Product Life Cycle

Identifying the Stage of the Product Lifecycle

The first step in managing the product lifecycle is to accurately identify the stage that the product is in.

You can do this by **analyzing sales trends**, **market share**, **customer feedback**, and other data to determine what stage the product is in.



Managing the Product Life Cycle

Adjusting marketing strategies based on the stage of the product lifecycle

Once you identify the stages, you can then adjust the marketing strategies accordingly.

For example, during the **Introduction stage**, companies may focus on building brand awareness and generating initial sales.

During the **Growth stage**, they may focus on expanding their product offerings and increasing market share, and so on.



Managing the Product Life Cycle

Planning for product retirement

Effective management of the product lifecycle also involves planning for the retirement of a product. This may involve phasing out the production of the product, discontinuing its marketing, and managing the transition to new products or technologies.

By planning for the retirement of a product, companies can minimize the risk of stranded inventory and ensure a smooth transition for their customers.



Product lifecycle PLC



Overall, by understanding the stage of the product lifecycle, companies can maximize the success and profitability of their products and ensure their long-term success in the market..

Conclusion

A product lifecycle is a crucial tool in today's market as it helps companies understand and manage the stages of a product's development, from ideation to discontinuation.

By analyzing the lifecycle, businesses can make informed decisions about **investment**, **marketing strategies**, and **resource allocation**, —————> greater efficiency and profitability.

In a constantly changing market, the product lifecycle remains a relevant and important framework for ensuring the success and sustainability of a product.

- During PLC, companies need to reformulate their marketing strategies several times.
- The general sequence of stages in any life cycle is introduction, growth, maturity and decline.
- Many products exhibit a bell-shaped PLC, there are many other patterns also.
- Each stage call for different marketing strategies as features at all stages are different.

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