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# Marketing

**Marketing mix: product and service management**

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# Index

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- The product and product model
- The service and service model
- The product life cycle
- The packaging

# What is the product

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- Products are one of the main objects of economic transactions.
  - General definitions
  - Marketing related definitions

# General definitions (1/2)

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- A product is the result of the transformation of materials into goods that have some value to people (economic, aesthetic, symbolic).
- A product is what is obtained from defined technical and economic activities (*Devoto Oli*).
- Producing is a social activity: products are the representation of relationships that man imposes with the environment and others.

# General definitions (2/2)

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- A product is the culmination of the productive process and is the **materialised** result of it. In common speech, the generating activity that combines material work and changes it into something else (**artifact**) is inherent in the idea of a product. Therefore, in the human area, products are all those objects that in some way are transformed from materials into goods which have some **value** to people, whether economic, symbolic or artistic. Producing and creating objects also means identifying one of the most important social activities, inherent in the method of production. Indeed products are themselves the material representation of the relationships that man imposes with both the environment and those considered others. As a sum of goods, products penetrate, with their intrinsic properties or those attributed to them, the exchanges that take place between men at any level. (*Einaudi Encyclopedia*).

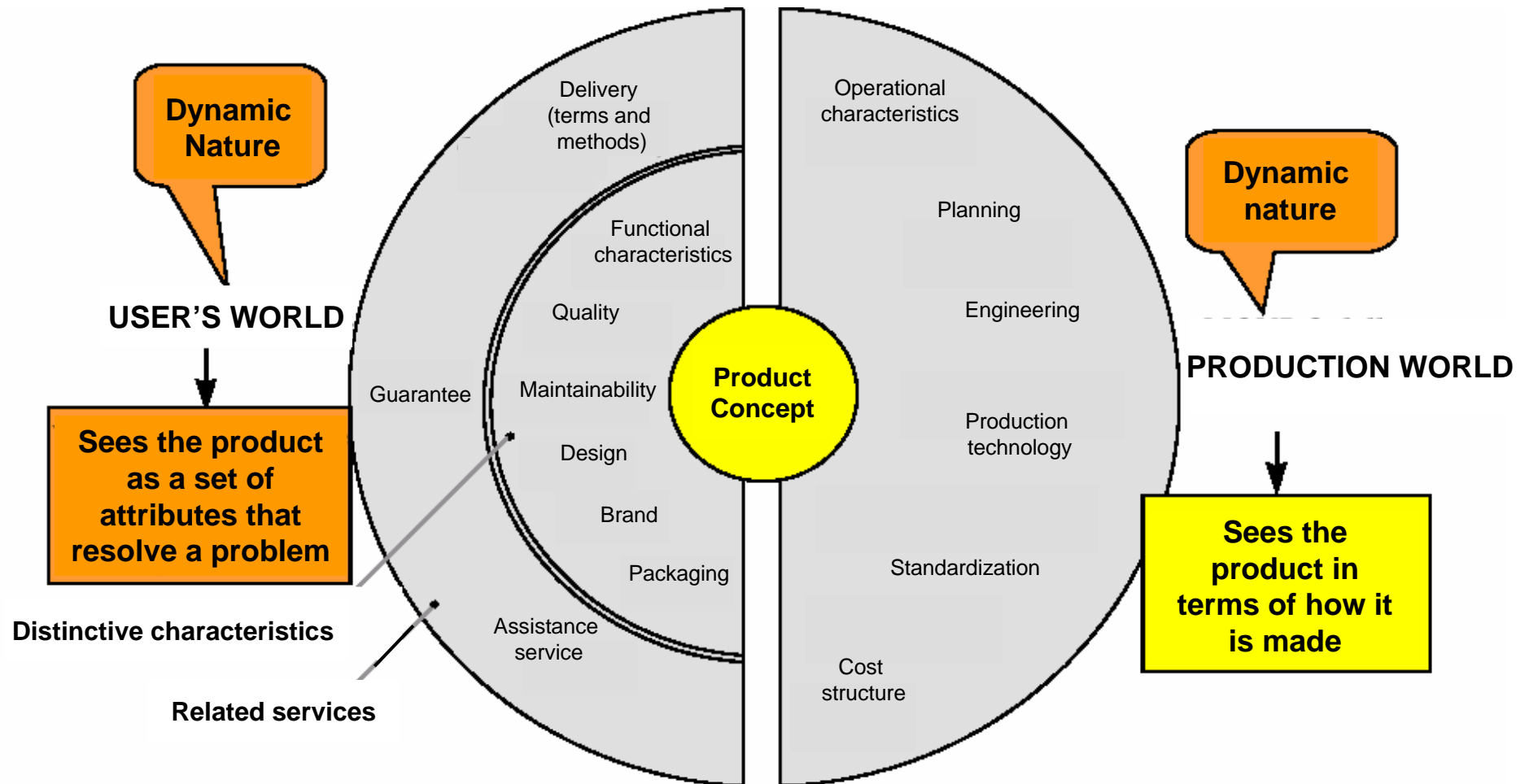
# Marketing related definitions

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- A product is the object resulting from transforming activities using materials, into a good that can be offered on the market to satisfy wants or needs (*Giacomazzi, 2002*).
- A product is **something** that can be offered to a market to satisfy a want or a need. Products that are marketed include physical goods, services, experiences, events, persons, places, properties, organizations, information and ideas” (*Philip Kotler*).

This is a broader view that includes services and incorporates the concept of a commercial offering.

# The product model (1/2)



# The product model (2/2)

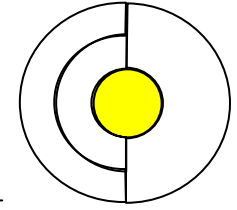
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- Elements that characterise products:
  - At the centre lies the **product concept** (the basic idea or concept), whose particular characteristics are not yet detailed, nor have they been defined from a commercial, project or productive viewpoint or differentiated from competitors.
  - External elements (the user's world).
  - Internal elements (the planning and production world).



# The product concept : the basic dimensions

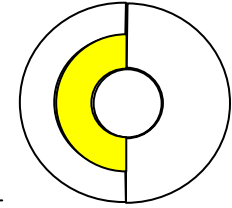
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- The product concept expresses:
  - What it is
  - What it does
  - Who it is intended for
  - What it signifies for customers
- *E.g. Compact sports car : small, light, good acceleration, aggressive design, range of prices...*
- *E.g. Pallet packaging machine, extendable polythene, without pallet rotation, medium capacity and high reliability, price no more than 20% higher than that of competitors ...*

# Product from a user perspective: distinctive characteristics

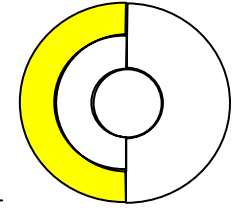
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- **The functional characteristics** express what the product gives and can do and what problems it resolves for the customer. Communicated in user language.
- The level of **quality** is measured using typical parameters relating to the particular class of product considered.
- **Maintainability** is understood to be the product's ability to undergo maintenance; building solutions that permit easier access to the equipment parts (e.g. machine tool) with a consequent reduction in stoppage times and lower costs.
- The **design** is of particular importance for many durable consumer products, but now also for many industrial investment goods.
- The **brand** is another distinctive element. Associates the product with the producer, evoking general characteristics of quality, reliability, etc ...
- The **packaging** is a vital element of attraction and presentation for many consumer goods. Must protect during transport and storage, but must be light, easy to dispose of recycle, appropriate for use of the good it contains.

# Product from a user perspective: related services

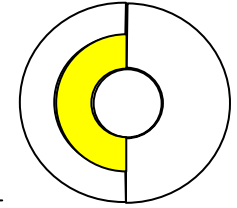
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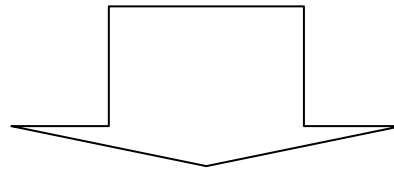
- Services related to the offering, “peripheral” in relation to the product but closely related to it as they form part of an offering strategy. Are often decisive for commercial success:
  - **Delivery terms** can sometimes lead a customer to choose one product over another; other times it may be the punctuality of delivery.
  - **Guarantee terms** refer to the producer’s commitment to answer for defects, breakages or inferior performance than that agreed.
  - The efficiency and quality level of **technical assistance** are decisive elements when the user does not possess the necessary technical knowledge.

# Example: level of reliability of machinery (quality)

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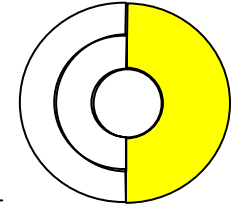
- Definitions:
  - MTBF: mean time between failure
  - MTFF: mean time to first failure
  - Time the machine is unavailable taken as a percentage of theoretical total time of use



- These parameters are measurable and understandable by the user
- The producer will adopt “internal” parameters to control production, related to the production cycle phases and to equipment components.

# Product from a producer perspective (1/2)

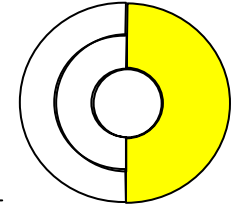
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- The **operational characteristics** are the technological-project translation of the functional characteristics. The same function can be realized with different **project solutions**, related to choices of quality level, production cost, company philosophy.
- **The engineering** aims to render the project more suitable to being manufactured using the chosen productive technology.
- **Standardization** may be internal or external
  - **Internal**: tends to reduce the variety of the components required for a particular product or to extend use of the same elements to a range of products
  - **External**: the company tries to harmonise the technical characteristics in line with the market standard, in order to improve its hold on the market by broadening possible uses

# Product from a producer perspective (2/2)

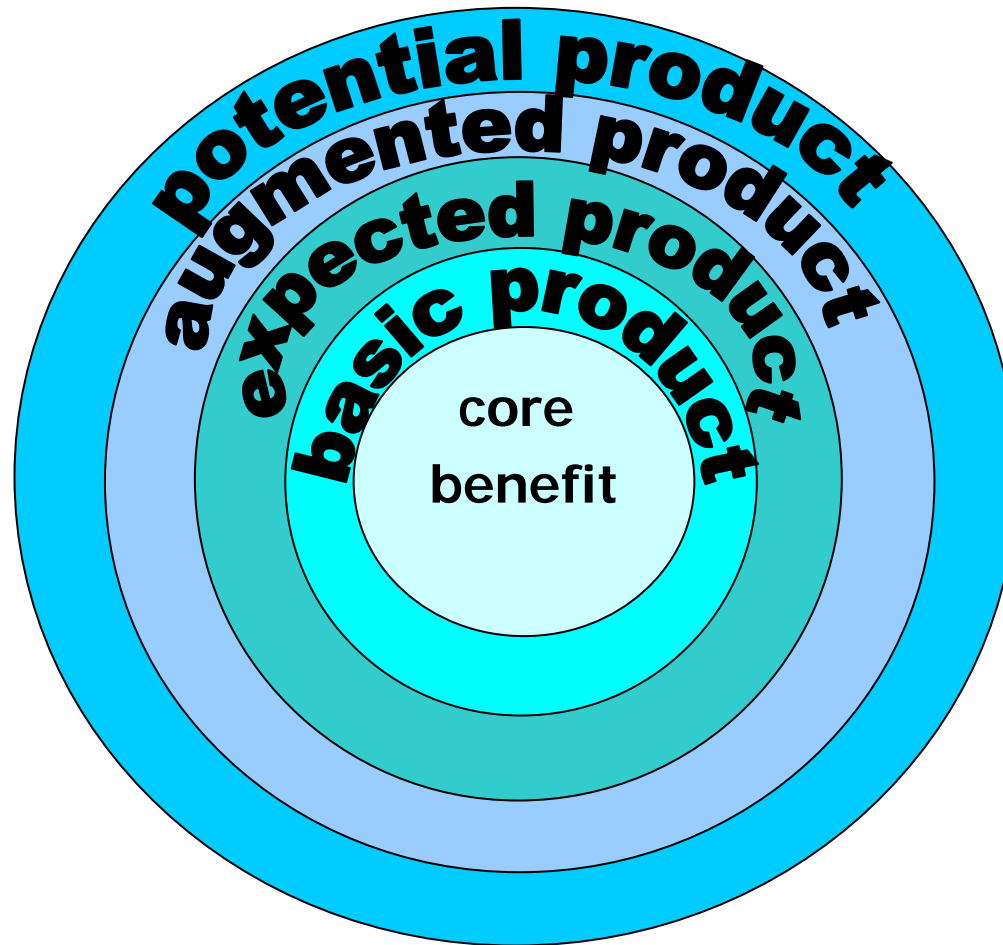
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- Cost structure: production-market system relationship, characterized by variety.
- Increase in variety is often more than proportional with the increase in volume of production.
- It is necessary to face the increase in costs due to augmented complexity
  - Flexible specialization
  - Planning a product according to:
    - Standardization
    - Modularization: planning in such a way as to use sub-units that can be put together in different combinations, to obtain a higher variety without excessively increasing the number of components

# The 5 product levels (1/3)

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# The 5 product levels (2/3)

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- In defining the product, the marketer must consider five different levels. Each level adds value for the customer and the five levels constitute a customer value hierarchy.
- The most fundamental level is the “**core benefit**”, i.e. the fundamental service or benefit that the customer is seeking. For example, the buyer of a drill is buying “holes”.
- At the second level, the marketer must turn the core benefit into a “**basic product**” using technical specifications.
- At the third level there is the “**expected product**”, a set of attributes the customer normally expects when buying this product.



# The 5 product levels (3/3)

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- At the fourth level, the marketer prepares an “**augmented product**” that exceeds customer expectations.
- *E.g. Babycenter.com: this website does not simply sell baby products, but also provides advice and information to parents to help them look after the health of their children.*
- At the fifth level is the “**potential product**”, which includes all the possible additions that could excite and stimulate a customer’s attention.
- In this environment companies look for new ways to distinguish their offering. *E.g: Virgin Atlantic is thinking of adding a shopping mall to its 600-passenger planes.*

# Product hierarchy (1/3)

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- The product hierarchy starts from core needs to particular items that satisfy those needs. We can identify six levels of the product hierarchy (for life insurance):
- *Need family*: the core need that justifies the existence of a product family. *E.g for insurance it is security.*
- *Product family*: all the product classes that can satisfy a core need with reasonable effectiveness. *E.g. savings and income.*
- *Product class*: a group of products within the product family with a certain functional coherence. *E.g. financial instruments.*

# Product hierarchy (2/3)

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- *Product line*: a group of products within a product class that are closely related because they perform a similar function, are sold to the same customer groups, are marketed through the same channels, or fall within given price ranges. *E.g.: life insurance.*
- *Product type*: a group of items within a product line that share one of several possible forms of the product (e.g. term life).
- *Items (SKU or product variant)*: a unit distinguishable by size, price, appearance or other attributes. (e.g. Prudential renewable term life insurance)

# Product hierarchy (3/3)

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- Two other terms are frequently used with respect to the product hierarchy :
  - *Product system*: group of diverse but related items that are complementary and compatible.
  - *Product mix*: the set of all products and items that a seller offers for sale.

# Product classification (1/2)

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- **DURABILITY AND TANGIBILITY**
  - Durable goods (clothing, refrigerators, cars, etc.,)
  - Nondurable goods (food, soap, etc.,)
  - Services (repairs)
- **CONSUMER GOODS**
  - Convenience goods (purchased frequently and with minimum effort. e.g.: cigarettes, newspapers, etc.,)
    - staples (purchased on a regular basis) -> toothpaste
    - impulse goods (purchased without any planning) -> candy bar
    - emergency goods (purchased when a need is urgent) -> umbrella during a rainstorm
  - Shopping goods (goods the customer compares on such bases as quality, price and style) -> furniture, clothing, major appliances.
  - Specialty goods (have unique characteristics for which buyers are willing to make a special purchasing effort) -> Mercedes
  - Unsought goods (goods a customer does not normally think of buying) -> smoke detector, gravestones.

# Product classification (2/2)

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- INDUSTRIAL GOODS

- Materials and parts (enter the product completely)

- Raw materials
    - Manufactured materials and parts

- Capital items (enter the product partially)

- Long-lasting goods that facilitate developing or managing the finished product

- Installations
      - Equipment

- Supplies and business services (do not enter the product).

- Short-lasting goods and services that facilitate developing or managing the finished product.

# Services (1/3)

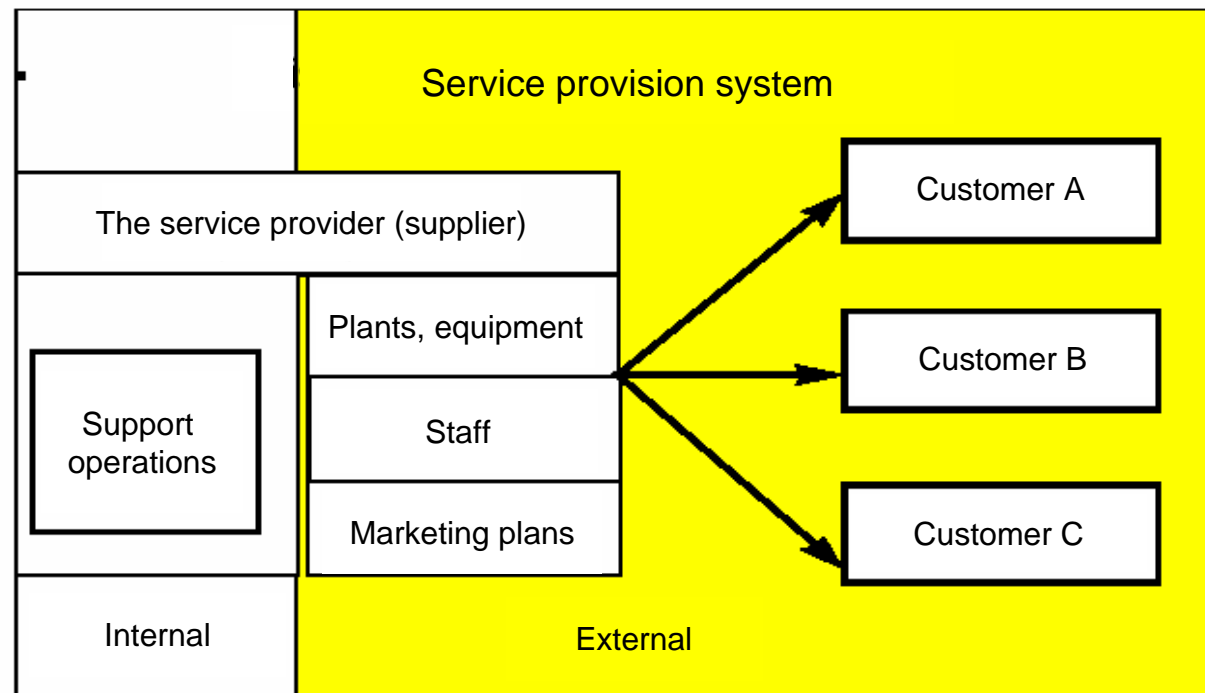
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- Kotler gives a definition that is too broad and does not take into account the real distinction between product and service, even though, recently, offerings are enriched by *bundled* products and services.
- Services cannot be taken as objects; they constitute **a set of inter-operating people and means**; they therefore have neither a stable form nor structure, nor can they be possessed or stored (*Martini e Vairetti*).
- Fisher in 1919 already distinguished between goods, which are **objects**, and services which are the **utility** produced by them: a machine tool is a good, and the utility deriving from the use of it is a service.

# Services (2/3)

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- Services consist of *facts*, produced by a combination of means or people.
- It has no form or stable structure.
- It cannot be possessed or stored but only provided.





# Services (3/3)

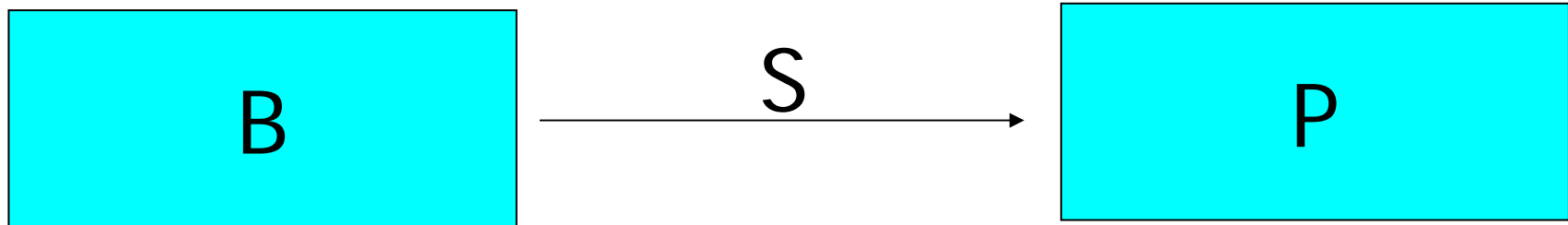
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- Services are characterised by :
  - Intangibility
  - Non-storeability
  - Simultaneous and contextual production and consumption
  - Being labour intensive
  - Variability
  - Higher difficulty in gaining customer loyalty

# Providers and users (1/3)

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- There are different types of provider and user.
- The most simple case is the provision of a service by a good or person.
- In this case there is a relationship between the good, the service and the person who benefits from it. The **object** (B) has an its own definition and an its own form; from this the **service** S is defined, which can be provided to person P, and the **object** becomes a **good** if there is a person P who can makes use of it.



## Providers and users (2/3)

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- There are different categories of service, which involve, both as providers and users, people, organizations and goods.
- This creates different types of services examined by interactive entities. Each type of service where a crossover takes place has its own characteristics. The relative marketing plans are also different.

	Service user (customer)		
Service provider (supplier)	Goods	People	Organizations
Goods			
People			
Organizations			(B2B)

# Providers and users (3/3)

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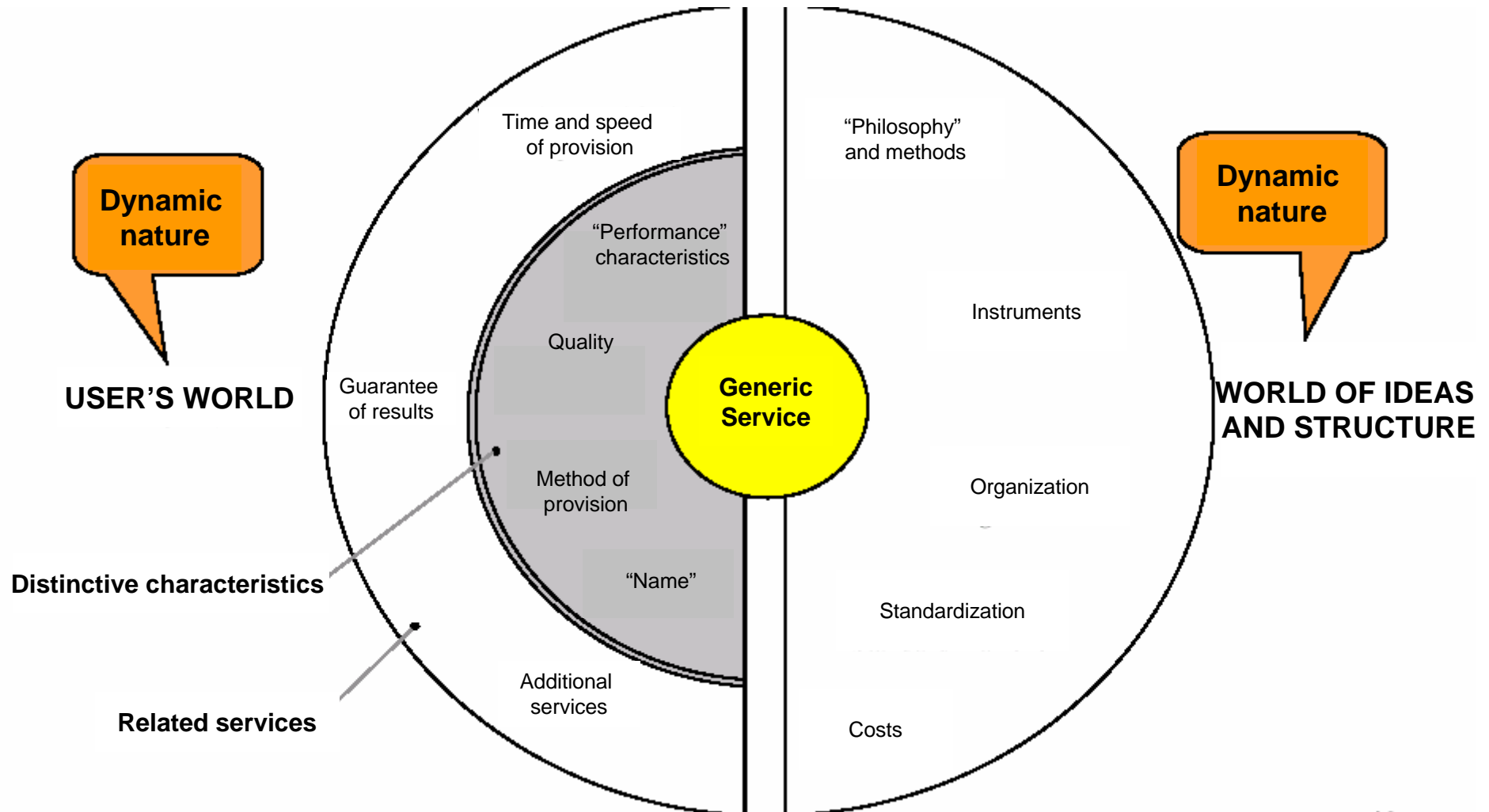
- In addition to the services provided by the goods to the person, there are also services **from good to good**. For example an irrigation channel fertilizes the earth, a robot feeds a machine tool.
- The provision of services in the industrial sector principally involves **organisations**. These are characterised by a set of knowledge and an organisational code that imbues meanings and combination rules to resources.
- ***A service is an activity*** or series of more or less intangible activities *which usually, but not always, involves an interaction between the customer and the providing personnel* and/or individual or goods and/or systems of the providing entity, *for the purpose of providing solutions to a customer's problems.* (Giacomazzi, 2002).

# Goods and services

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- A **service** normally involves **goods** and **people** in an set of organizational and composition **rules** that establish the proportions, functions, methods and timing of use. (Giacomazzi, 2002).
- **Goods** and **services** are two completely different entities; the former are **individual objects**, defined and mastered, with an **established form** and which can therefore be measured at any given moment. The latter are **actions** or **retroactions** of goods on the subject, of the subject on goods or from goods to other goods. (Martini and Vairetti, "Terziario avanzato").
- With use, goods change their ability to serve for three principal reasons: wear and tear, technological advances, passing of the use function.

# The service model



# The concept of service, core dimensions

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- The concept of service expresses :
  - What it does
  - Who it is aimed at
  - What it means for customers
- *E.g. logistical warehouse outsourcing spare parts*
- *E.g. externalization of the recording of supplier accounting invoices*
- *E.g. LAN network technical assistance with remote assistance and intervention in loco within two hours*

# Factors that characterize a service

## (1/3)

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- **Quality:** still an open issue given the difficulty in parameterizing the level of quality of a service. In fact there are often gaps between management perception of the level of service expected by a customer and the customer's perception of the quality received. To increase the *value perceived* by the customer, **being** the best is not enough, it is also important **to be seen and perceived** to be the best. *It is fundamental to know the criteria with which a customer measures the value of services offered and to have the ability to interpret and transmit them correctly.*

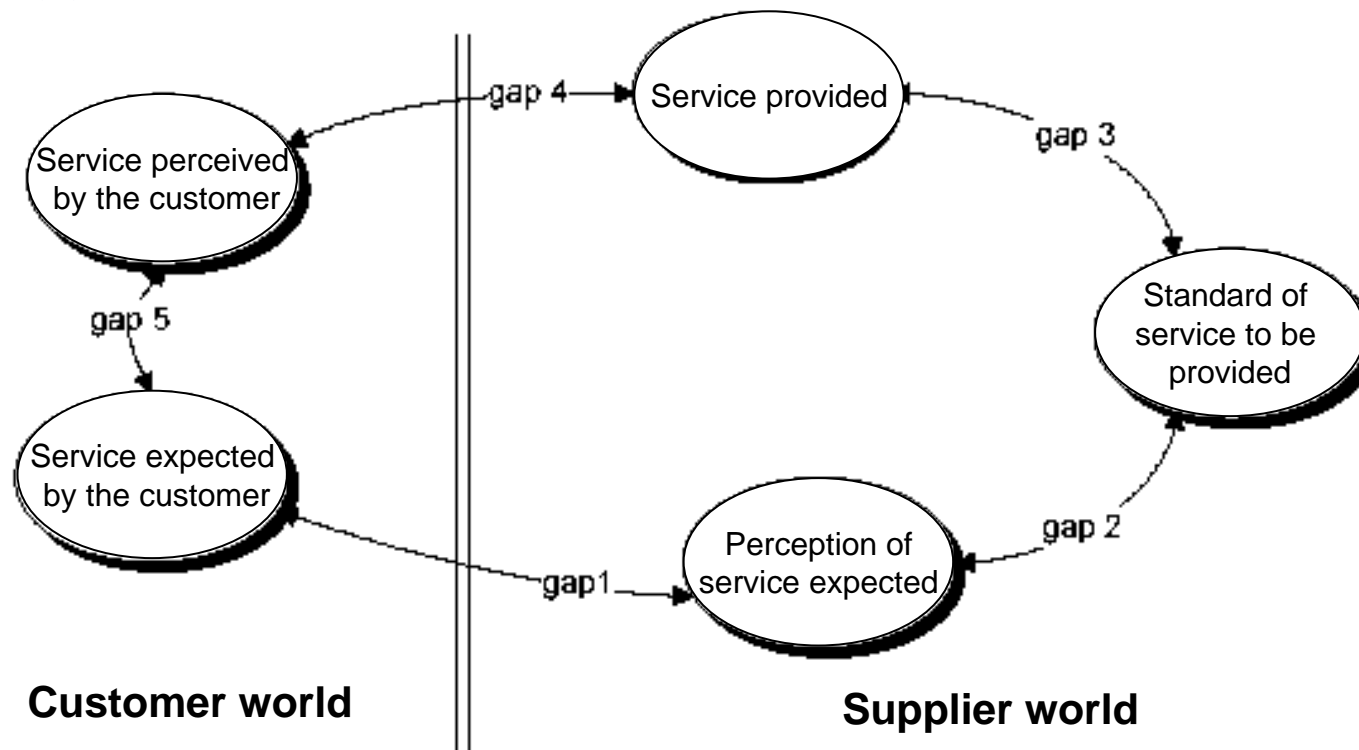


# Factors that characterize a service

## (2/3)

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- There is a **gap model for quality**: numerous steps with inevitable falls in yield between the supplier's perception of the quality expected and the customer's perception of the quality received.



# Factors that characterize a service

## (3/3)

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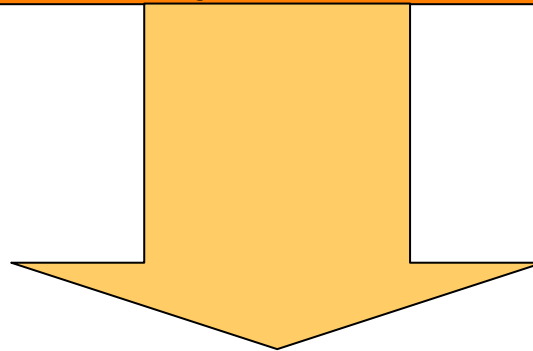
- **Method of provision.** Services with the same function may be offered and provided in different ways, depending on the philosophy of the service provider.
- **Speed of provision.** It influences the duration of the intervention, obviously in connection with the importance of the job but also with the availability of adequate personnel, the method used, the customer's situation, his receptiveness, and the organizational ability of the provider.
- **Assurance of results.** Of increasing importance. Indeed, there is a clear tendency to go from a “provision logic” to a “result logic”.
  - Example: business consultancy, financial consultancy
  - Not applicable in certain cases: e.g. medical care

# Service provision phases

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## **Explanation of the problem and its formulation:**

is a process of dialogue that involves the supplier's ability to interpret aspects that the customer himself ignores or perceives unclearly. **(PROBLEM SETTING)**



## **Service provision:**

it is necessary to show professionalism and provide the service in a way that is comprehensible to the customer (= that attracts him).

**(PROBLEM SOLVING)**

# Service problems related to particular characteristics (1/2)

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<b><i>Characteristic</i></b>	<b><i>Effects</i></b>
<b>intangible</b>	<ul style="list-style-type: none"><li>• Gives rise to customer caution<ul style="list-style-type: none"><li>• Make the intangible tangible as a marketing action</li><li>• Insurance, bank “products”</li></ul></li></ul> <p>E.g. Credito Italiano investor: banking consultancy service “materialized” into a box with sw, manual, etc.</p>
<b>not storeable</b>	<ul style="list-style-type: none"><li>• Problems in pairing demand – service production<ul style="list-style-type: none"><li>• Production capacity flexible and based on average size</li><li>• Specific marketing actions to stimulate demand in “low” periods</li></ul></li></ul>
<b>Variability (adaptation)</b>	<ul style="list-style-type: none"><li>• Cost problems</li><li>• Standardization of provision processes</li></ul>

# Service problems related to particular characteristics(2/2)

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<b><i>Characteristic</i></b>	<b><i>Effects</i></b>
<b>Labour intensive and often skill and knowledge intensive (knowledge workers)</b>	<ul style="list-style-type: none"><li>•Skill shortage</li><li>•Less economies of scale</li></ul>
<b>More difficulty in evaluating value and quality</b>	<ul style="list-style-type: none"><li>•Less loyalty</li><li>•Evaluation of the offering is more critical, requests for references and tangible evidence of capacity</li><li>•Risk of cuts in crisis periods</li><li>•Close relationship with the customer</li><li>•Frequent checks</li></ul>

# The enlarged product: orientation towards product plus service

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- Many companies offer products and services combined in a single offer. In this sense we can no longer speak of products and services separately, but of a combined product or “bundled offer”.

*Example:*

*“Full-service machinery rental: the supplier of a capital good rents it, at a price inclusive of maintenance, consumer products and training, etc.”*

- The highest profits often derive more from the sale of the service than the product:

*Example:*

*Car sale + financing + RCA insurance*

# The enlarged product, examples (1/2)

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*Example: from paint supply to painting services and related aspects*

- PPG Industries is the world leader in the production of paint for cars.
- PPG stipulates agreements with car manufacturers (e.g. Daimler Chrysler) for the provision of a painting service that involves:
  - responsibility for all chemical products for the cleaning, treatment and painting of vehicles
  - payment for each vehicle painted to the quality standard agreed
  - sharing with the Customer the savings obtained by PPG in optimising the service supply process compared to the previous situation
- Contract with Ford: not only supply of paint, but also treatment of waste from the painting process
- Supplier objective: to maintain exclusivity
- Customer objective: painting service costs lower than the total cost of purchase, management, own operations, etc.

# The enlarged product, examples (2/2)

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## ***Example: from supply of lubricants to lubricating services***

- Castrol is a division of BP that specializes in lubrication
- It offers a service called “Lubricoach” which involves:
  - a study of the best lubricants for the plant in question
  - installation of equipment for automatic lubrication using its own products
  - lubrication programme (with information support)
  - analysis of workings and meetings with the Customer to evaluate the service
  - payment of a monthly fee for “Lubricoach management service, inclusive of materials, equipment, technical assistance and lubrication programme”
- The customer undertakes, for the duration of the contract, to not use other lubricants and to provide information on the functioning of the plants.
- Supplier objective: maintain exclusivity
- Customer objective: lubrication service cost lower than previous total costs, quality and less headaches.



# Summary of the differences between products and services

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<b><i>Products</i></b>	<b><i>Services</i></b>
Tangible	Intangible
Homogenous	Heterogenous
Production and distribution separate from consumption	Production, distribution and consumption are simultaneous processes
A thing, an object	An activity or a process
The essential value is produced in a factory	The essential value is provided mainly in interactions between vendor/buyer
Can be stored in a warehouse	Cannot be stored in a warehouse
Transfer of property	No transfer of property

# Product life cycle (1/4)

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- The product life cycle (PLC) concept is one of the fundamental concepts of marketing.
- The PLC concept is based on the assumption that products pass through a cycle of birth, life and death, like any living organism.
- Asserting that a product has a life cycle also means that:
  - The product has a limited life.
  - Sales pass through distinct stages, each of which presents challenges, opportunities and problems for the seller.
  - Profits rise and fall at different stages of a product's life cycle.
  - Products require different marketing, financing and production strategies for each stage in the life cycle.

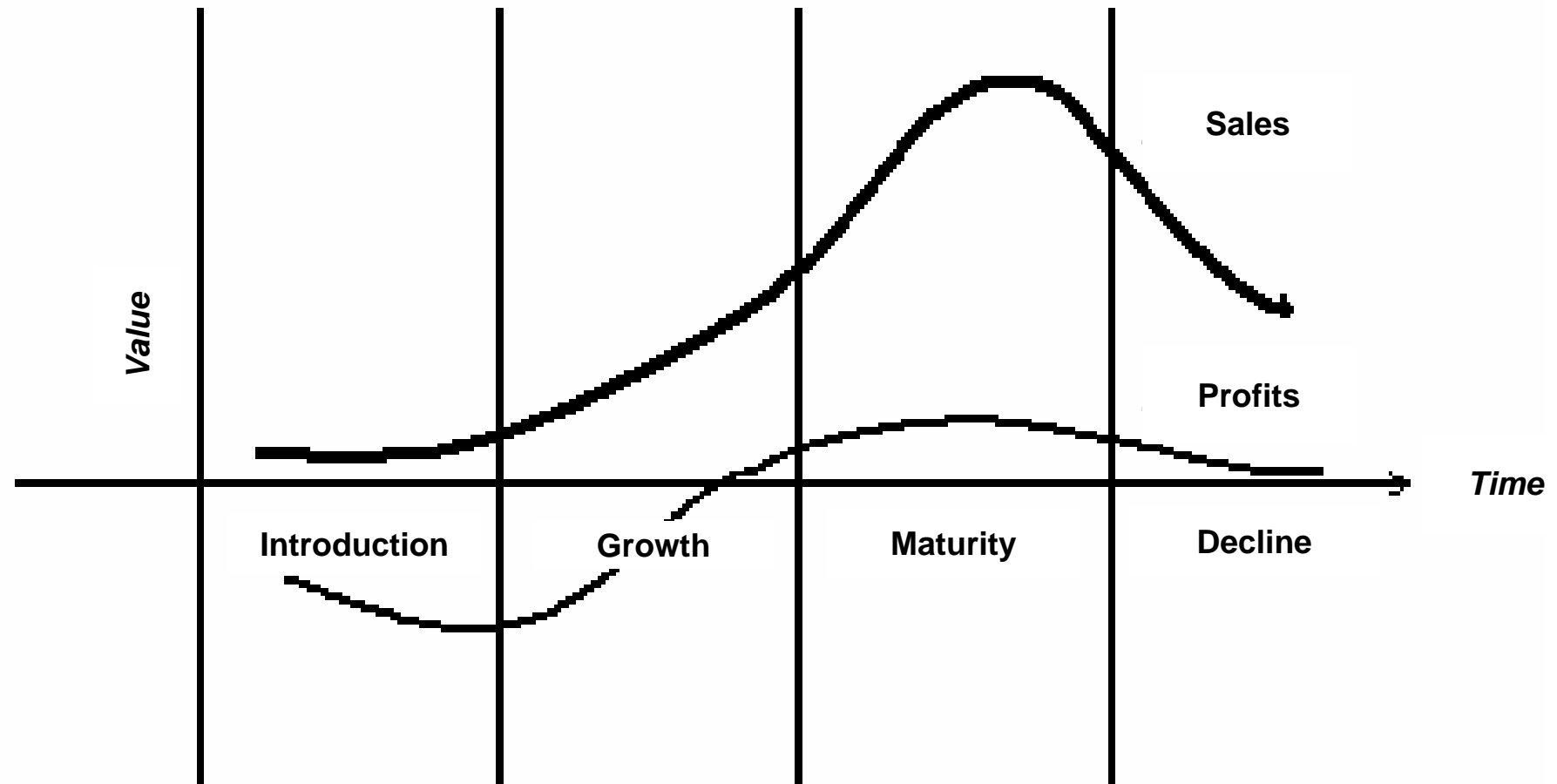
# Product life cycle (2/4)

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- A product's life cycle defines the level of sales of a particular product at a particular time. In its most common form, the cycle is divided into four phases and presents a concaveness towards the lower end:
  - **Introduction**
  - **Growth**
  - **Maturity**
  - **Decline**
- The life cycle creates the illusion that all products placed on the market go through the four phases. In actual fact a large percentage of these does not “break through”. In these cases, after introduction there is a “flop”.

# Product life cycle (3/4)

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# Product life cycle (4/4)

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- After introduction on the market, most products experience a growth in sales, which ends when:
  - The need no longer exists
  - The product becomes obsolete
  - User preferences turn elsewhere
  - There has been technological progress
- **A product's life cycle has considerable influence on the definition of marketing strategies, in that each phase of the life cycle corresponds to a different marketing strategy.**

# Introduction (1/3)

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- The product is not yet known. Sales grow slowly. The speed of the diffusion process depends on various factors:
  - Higher or lower product complexity and ability to be understood by the user;
  - Level of novelty;
  - Technical problems discovered in the development of the product;
  - Responding to needs;
  - Presence of fungible products;
  - Difficulties in establishing distribution channels;
  - Degree of marketing effort.
- In the first introduction phase there are high costs and considerable risks are faced.

# Introduction (2/3)

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- Problem of price determination:
  - High? To quickly absorb the investment (*skimming strategy*).
  - Low? In order to discourage potential competitors and attract potential customers (*penetration pricing*).
- During the introduction phase, sales start from zero and grow slowly. Profits are generally non existent because of the expenses incurred with introduction and not immediately absorbed by sales.
- In this phase, marketing actions are aimed at inducing trial.

# Introduction (3/3)

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- Promotion tries to attract the consumer's interest and develop initial demand as there are no competitors with which to share the market and there is only one brand. Sales promotions are often used to make consumers try the product.
- During this phase much emphasis is placed on establishing distribution channels and getting into contact with the consumer.
- Companies that decide to launch a new product and enter a new market must decide when to enter. Being the first to enter a market can be extremely profitable, but also risky and costly.
- Entering as a *follower* can bring the advantage of more recent technology and reduced risks, but also lower profits.



# Growth (1/4)

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- The growth phase is characterized by a rapid growth in sales.
- If the product is successful, it will experience more rapid growth, up until the market begins to be saturated (a fact indicated by a reduction in the steepness of the sales curve/time).
- The more a product is successful, the higher the probability that competitors will enter the market. The producer must begin to change his marketing strategy to anticipate competitors' moves.
- Some competitors will begin to apply lower prices, taking advantage of the effect of experience, or of scale, of technological progress, or being satisfied with lower unit profits simply to intensify sales. Distribution channels also increase.

# Growth (2/4)

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- A follower will generally enter the market by segmenting, exploiting the innovator's product's weak points and its positioning.
- This presents a dilemma for the innovator who may be reluctant to abandon the whole market and focus on a specific segment. This is generally the best strategy.
- During the growth phase, the differentiation of the product and adapting the product to the needs of a specific segment are essential to support entry into a new market and defend its own position from a new entrant.
- A price war takes place, but the product's differentiation and the growth of the market can reduce its effect.

# Growth (3/4)

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- During the growth phase, promotion is concentrated on creating a selective demand. Promotions tend to underline differences between the products with an increased focus on specific segments.
- Promotional costs are generally higher in absolute terms, but lower as a percentage compared with sales.
- In summary, the company employs different strategies to sustain the rapid growth of the market:
  - Enters new market segments
  - Increases distribution channels
  - Slight lowering of prices to attract the more reluctant consumers
  - Improves product quality and adds new characteristics (examples)

# Growth (4/4)

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## Examples

- **Starbucks Coffee Company:** *is one of the most well-known brands. This allows it to benefit from a price premium that consumers are prepared to pay. Starbucks offers a range of complementary services (for example, coffee served in a welcoming “coffee house”) that give it an advantage over competitors.*
- **Yahoo!:** *this site was initially founded as a search engine. The subsequent addition of new services notably increased its popularity.*

# Maturity (1/3)

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- The maturity phase begins with market saturation.
- The maturity phase is dominated by consolidated competition and a desire of those companies already present on the market to survive.
- To increase market share and make use of possible economies of scale that arise from the increase in volume, producers introduce different varieties of the product, each aimed at a different market segment (improving quality, adding new characteristics, improving design, etc...)
- Companies increase their R&D budget to develop product improvements.
- Pressure to lower prices may be considerable, with consequent price wars.
- Advertising and promotion expenditure remains high, but begins to slow in relation to sales.

# Maturity (2/3)

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- Competition in distribution channels also increases as companies try to maintain a strong presence and increase their presence in key outlet points in a market that is no longer growing.
- The maturity phase is generally dominated by a few large firms.
- The maturity phase generally lasts until:
  - Substitute products emerge
  - Changes take place in consumers' habits and needs
  - Technological changes render the product obsolete

# Maturity (3/3)

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- Due to the pressing competition from Pepsi Cola, in 1985 Coca Cola decided to introduce a new drink with a new formula (New Coke).
- The launch of this new product turned out to be a failure following protests by consumers who wanted the old product with the classic formula.

# Decline (1/2)

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- When the growth level of sales is negative, the decline phase begins. The volume of sales begins to fall and competitors start to withdraw from the market.
- Customers who are still loyal must be identified so that the marketing effort can concentrate on these.
- Prices are kept stable or generally lowered.
- Marketing costs must be cut to maintain margins despite the fall in volume of sales and prices.
- Promotion and publicity are reduced. Low frequency publicity may be used to maintain customer loyalty and product distribution channels.
- The general lowering of prices and profits is sometimes accompanied by a process of concentration in the sector as some weaker competitors leave.



# Decline (2/2)

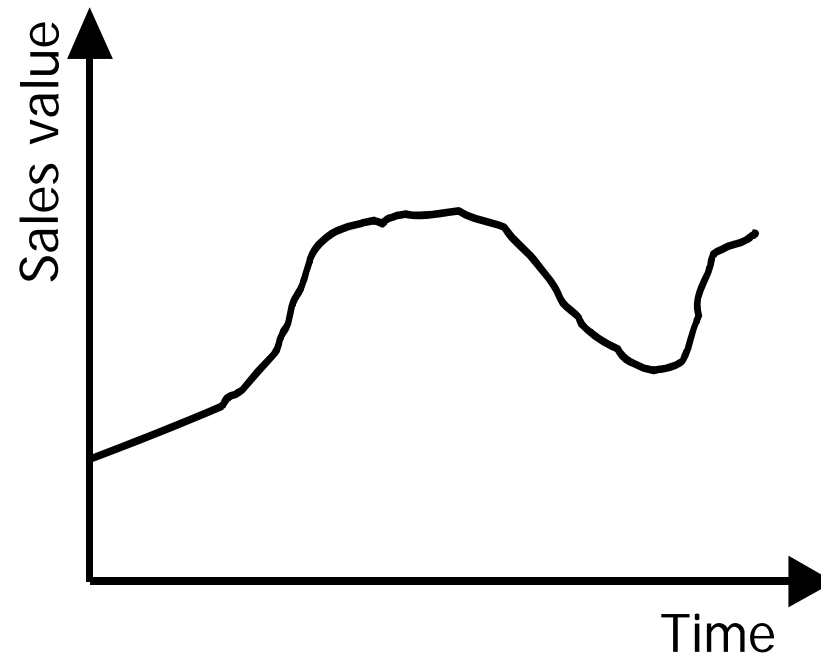
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- This strategy is maintained until the product ceases to be profitable and nears elimination from the market or a re-launch takes place.
- There are different options open to the management in this phase:
  - Either the product is eliminated (problem of exit barriers)
  - Or it is revitalised:
    - Increasing the frequency of purchases by existing customers
    - Increasing market coverage
    - Improving the product's functions
    - Improving the product's quality
    - Discovering new uses

# Revitalization (1/3)

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- In the event of revitalization, the life cycle curve assumes the following form:



# Revitalization (2/3)

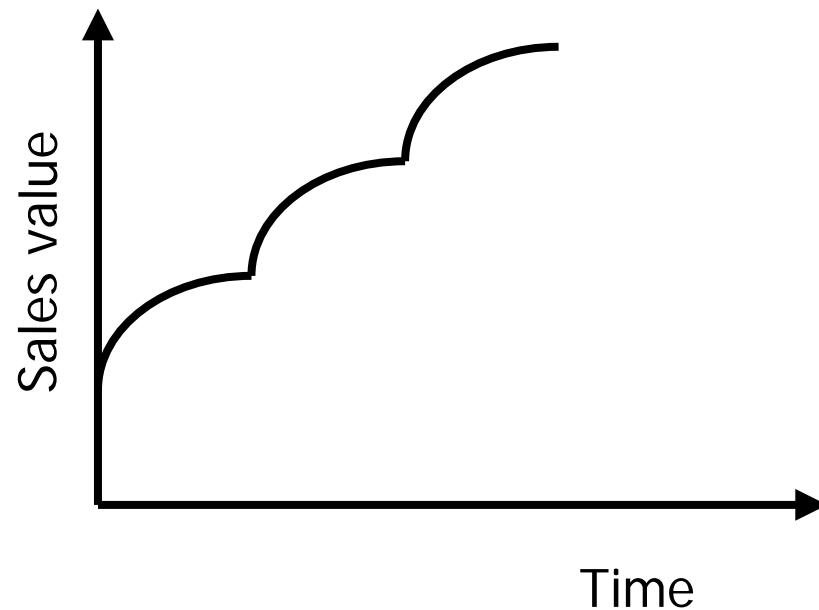
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- The product can be revitalized by increasing the “value” of the product to the customer through a growing addition of service.
- This is the broadened product. The competition is also based on the additional services the company can offer.

# Revitalization (3/3)

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- In case of discovery of new product uses the life cycle curve assumes the following form:

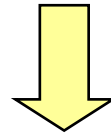


# Revitalization: new uses

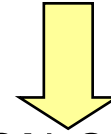
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## ***Example: DU PONT STRATEGY***

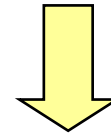
“SYSTEMATIC SEARCH FOR NEW APPLICATIONS  
OF THE BASIC MATERIAL”



APPLICATION IN THE MILITARY SECTOR



PRODUCTION OF HOSIERY



PRODUCTION OF RUGS, TYRES .....

# Product adoption process (1/2)

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- The process of adopting a new product is often also referred to using the term **diffusion process**.
- The adoption process describes the buyer's behaviour during the product's life cycle.
- For the producer, the adoption of a new product refers to the process through which consumers learn of the new product and begin to make use of it.
- The adoption of a new product takes place throughout the product's life cycle at different growth rates.
  - Initially only the most innovative people use it.
  - The rate of adoption increases because less innovative people adopt the new product.
  - Once saturation point has been reached, the adoption rate begins to fall.

# Product adoption process (2/2)

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- The curve that describes the process of adoption of a new product is not that for the life cycle, but is closely related to it.
- The way in which potential customers perceive a new product influences the speed at which it will be adopted:
  - **Relative advantage**: the higher the perceived advantage of the new product compared with the product it will replace, the faster its adoption will be.
  - **Compatibility**: the higher the coherence of the new product with the values and needs of potential users, the higher the level of adoption will be.
  - **Complexity**: the speed of adoption is inversely proportional to the complexity of the product.
  - **Ease of use**: is positively related to the rate of adoption.
  - **Awareness**: when the results of adoption of a new product can also be seen by those that do not use it (non adopters), the innovation will spread more rapidly.

# Categories of user

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- Rogers divides users into five categories according to their ability to perceive innovation:
  - Precursors
  - Innovators
  - Innovative majority
  - Follower majority
  - Conservatives
  - Unyielding



# Forces influencing the life cycle

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- In addition to the strategies and combinations of marketing mix tools adopted by the company, the sales performance of a product is influenced by the following factors:
  - Cost/benefit relationship perceived by the customer.
  - Technological evolution.
  - Existence or emergence of substitute products.
  - Global market development rate.
  - Economic context in terms of customer inclination to spend.
  - Competitors' strategies.

# Adoption and competition (1/3)

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- Two factors in particular determine a product's life cycle:
  - The process of adoption of the new product
  - Changes in the competitive environment or market structure.
- Variations in the life cycle phases can be explained through the effects and synergies of these two factors.
- The product's life cycle is not a fixed or inevitable passage, but is also determined by the reactions of **consumers and competitors.**

# Adoption and competition (2/3)

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- **Introduction:** a new product is usually introduced by only one company which enjoys a temporary monopoly. Since the product is still almost unknown to potential customers who are reluctant to accept the risk of a new product, the initial adoption of the new product is limited to a small group of innovative consumers.
- **Growth:** as the company promotes its new product, this begins to attract an ever-wider group of consumers and at the same time the success of the product attracts new entrants (competitors).

The growth stage sees an increase in competition, in promotional effort and in the number of consumers, also through word of mouth.

# Adoption and competition (3/3)

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- **Maturity:** during the maturity phase, sales depend mainly on purchases by loyal consumers rather than new ones. The competition becomes more intense due to the high number of competitors present.  
The smallest competitors with the least favourable cost structures withdraw from the market which, in turn, becomes more concentrated.
- **Decline:** in the decline phase the consumer generally starts to abandon the product in favour of another. The market moves towards an oligopoly structure.

# Stages of the life cycle

	Introduction	Growth	Maturity	Decline
<b>Sales</b>	Low	Rapid growth	Maximum	In decline
<b>Costs</b>	High	Medium	Low	Low
<b>Profit</b>	Negative	Growing	High	In decline
<b>Consumer</b>	Innovator	Innovative majority	Conservative majority	Latecomers
<b>Competition</b>	Little	Growing	Stable	Falling
<b>Marketing objectives</b>	Product knowledge	Maximise market share	Maximise profit	Reduce costs
<b>Product</b>	Offer basic product	Product extensions	Different brands and models	Eliminate models
<b>Price</b>	Cost-plus	Market penetration	Better than the competition	Cut
<b>Distribution</b>	Selective	Intensive	Ever more intensive	Selective
<b>Publicity</b>	Diffusion awareness	Mass marketing diffusion	On brand differences	Lower use

# Comments (1/3)

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- The life cycle concept is a reminder:
  - Which are the forces operating on a market.
  - That the product has a limited life, from which the need for innovation follows (investments in R & D).
  - The need to maintain a balanced portfolio, to which a balanced cash flow is related.
  - That at different stages, not only different marketing strategies are needed, but also production, financing, etc.

# Comments (2/3)

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- The life cycle is not a law with time as an independent variable but the result of different forces, decisions, actions, for the contention of markets as well as external circumstances; and also reflects markets' changes in attitude (i.e. demand) towards the product.
- The instrument is used as a guiding principle for defining marketing strategies and not as a system for forecasting the sales of a product over the course of its useful life.

# Comments (3/3)

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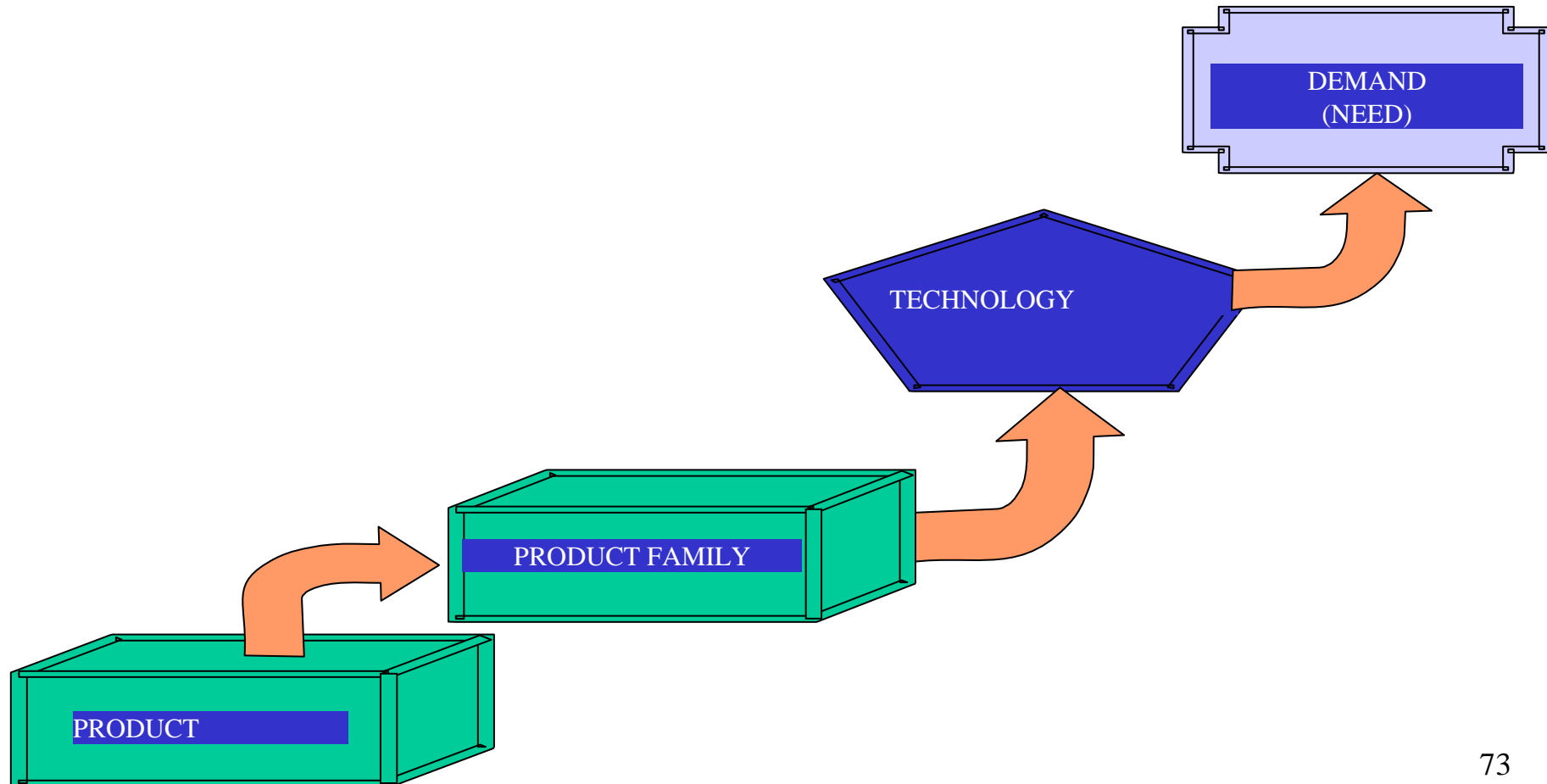
- In its abstract sense, a product's life cycle is shown as a continuous line. In reality this is not always the case.
- In fact progress is affected by irregularities related to factors that cannot be controlled by the company. Its progress can be governed only in part, as there are many external variables that influence its progress.
- During the life cycle it is difficult to identify the moments of transition from one phase to another.



# Various levels of aggregation (1/3)

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- The life cycle model's application can also be extended to other levels of aggregation and to other entities.

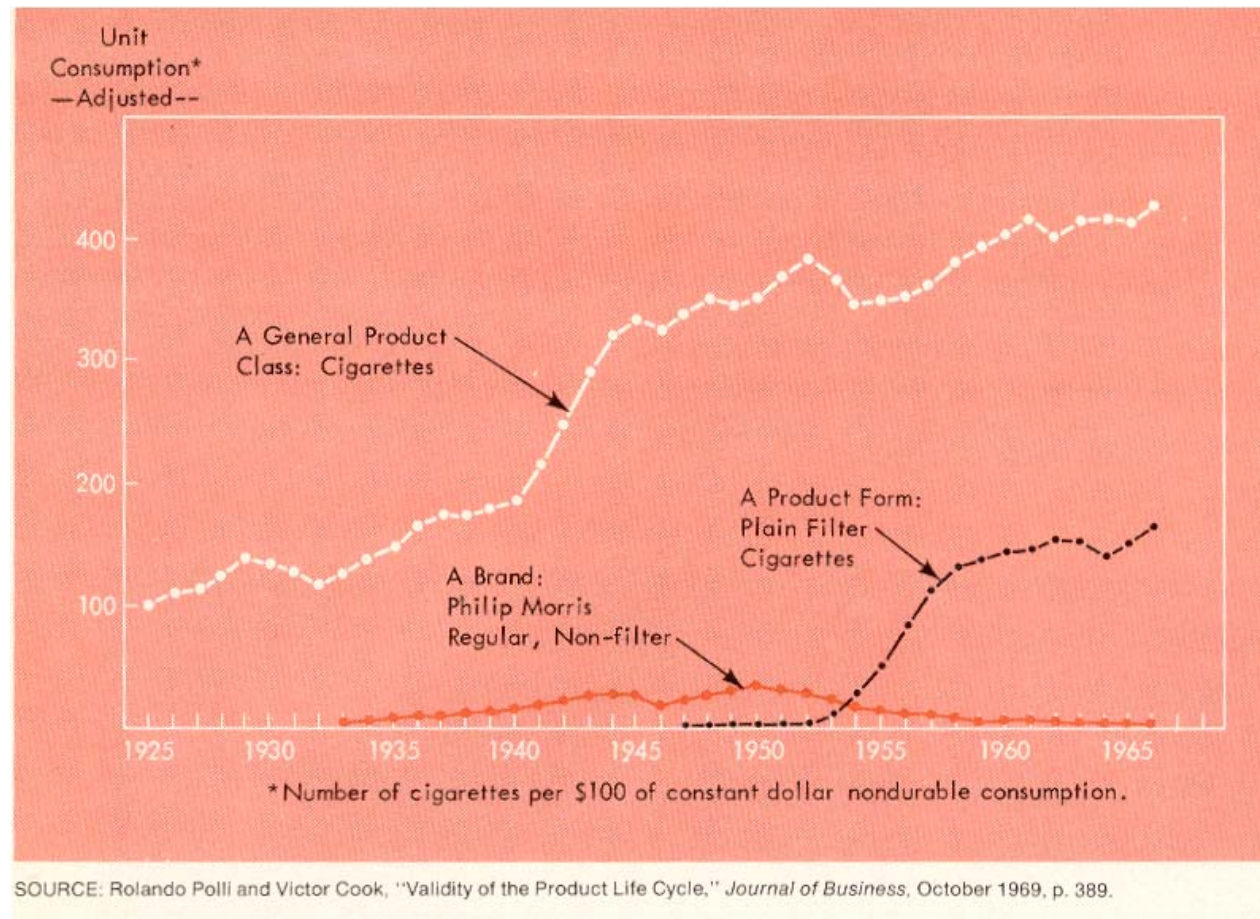


# Various levels of aggregation (2/3)

- The life cycle concept can be extended to a single entity (product, technology, brand), to a range of products, to a category, to a particular industrial sector or to a primary need.

ENTITY			
PRODUCT/SERVICE		EXAMPLES	BRAND
Single	Higher aggregation	Notebook Toshiba Portegé 7020	Toshiba Portegé
Range of products/services		Family of the Notebook Compaq Entry Level	Compaq
Category of products/Services		I Notebook	
Industrial sector <sup>1</sup>		PC production	
Primary need		Calculation/ processing	

# Various levels of aggregation (3/3)



# Shortening of the life cycle (1/3)

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- Due to the increase in competition, the duration of the life cycle has been progressively shortened. The principal reasons are:
  - Technological innovation
  - The need to introduce new features to attract the interest of consumers. New products are prized. New features are associated with new functions, a more captivating appearance, better performance, better price/performance relationship, and this causes the market to move.
- The shortening of a life cycle is used systematically as a competitive tool.

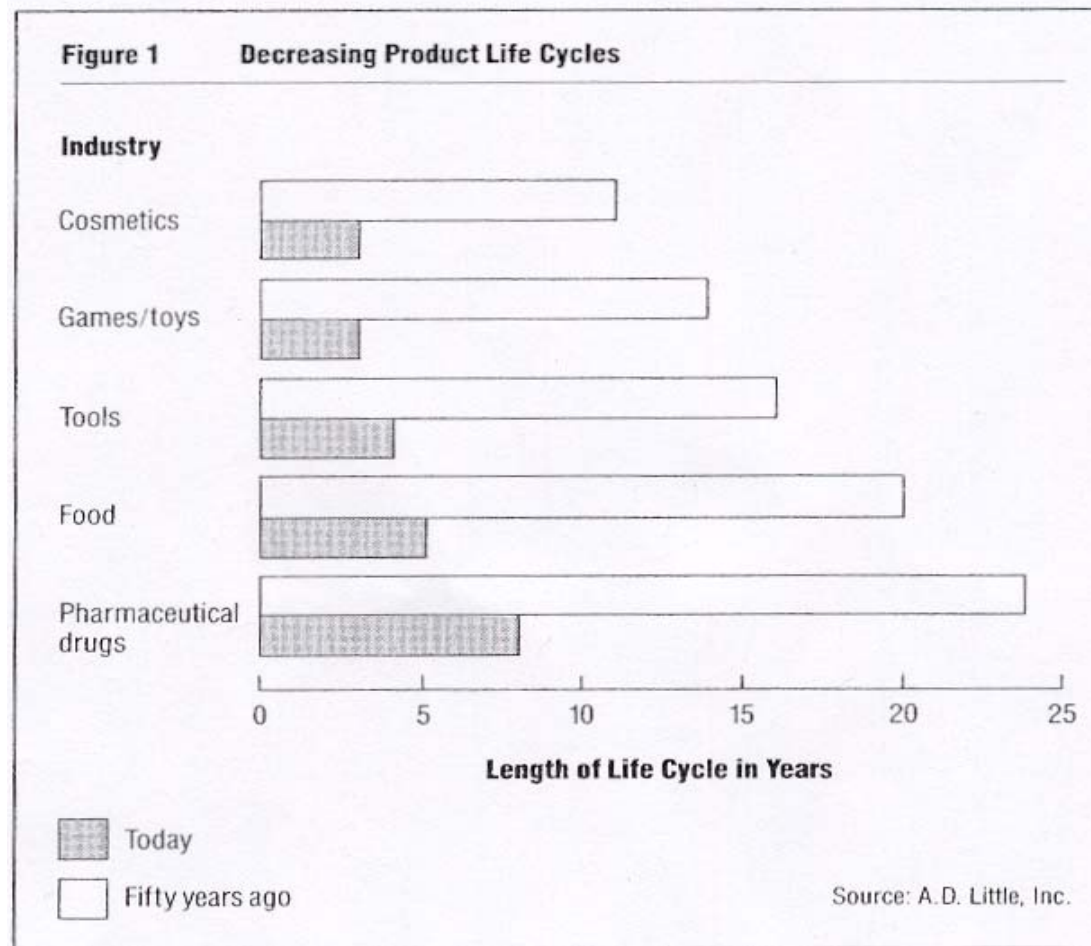
# Shortening of the life cycle (2/3)

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- The Communication and Information Technology sector, whose frenetic pace renders many products obsolete in a very short time, has undergone a particular life cycle shortening, and given another look to the so-called *“fast-paced economy”*.
- E.g. Ceo by HP. Now the duration of the life cycle is = 6/12 months. 5 years ago it was = 3/5 years. Consequently it is necessary to continually invest in frontier technology.
- E.g. 3M. Measures its own level of innovation from the turnover deriving from new products. The objective a few years ago: 25% of the turnover from products aged  $\leq 5$  years. Now: 30% of the turnover comes from products aged  $\leq 4$  years. In the near future: 10% age  $\leq 1$  year.

# Shortening of the life cycle (3/3)

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# Packaging and labelling

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- Packaging and labelling are further elements of the product strategy.

## Packaging functions

***PROTECTION***  
*THE PRODUCT  
MUST REACH THE  
FINAL CUSTOMER IN  
THE DESIRED FORM*

***COMMUNICATION***

***FACILITATION OF USE***

# Packaging

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- Packaging can contain up to three different levels of material. We speak of primary, secondary and tertiary packaging.
- Packaging is assuming and ever more important value as a marketing tool.
- Firstly it is necessary to establish what the packaging must be or do for the specific product. Other important aspects include decisions on additional elements such as size, shape, materials, colour and text.



# Primary packaging: consumer needs

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- Easy to transport from point-of-sale to the home.
- Convenient for domestic storage
- Possibility of use
- Instructions, advice, dangers and warnings for use
- Response to environmental problems
- Possible nutritional information

# Primary packaging: production needs

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- Communicate product differentiation
- Attract customers' attention
- Stimulate the desire to purchase
- Develop an emotional reaction
- Give rise to a preference

# Primary packaging: distribution needs

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- Facilitate shelving arrangement.
- Optimal use of display areas.
- Easily legible bar codes to render check out operations faster.

# Labelling

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- Vendors are obliged to label products. Labelling may be a simple tag applied to the product or a more elaborate graphic design. The label may contain only the brand name or various other types of information.
- Labels serve various purposes:
  - Identify the product or brand
  - Describe the product
  - Contain additional information
  - Promote the product through attractive graphics