



Production factors in an organization

- System of production factors in an organization
- The use of management in an organization
- Division of power in managing an organization
- Corporate governance
- Business and value chain



System of production factors in an organization

Work performance, long-term tangible assets and material are three elementary factors, which are combined in the organization

types of work performance:

- **implementing (executive) work**
- **managing work**

Management is a separate production factor

Four production factors are distinguished in the enterprise (manufacturing):

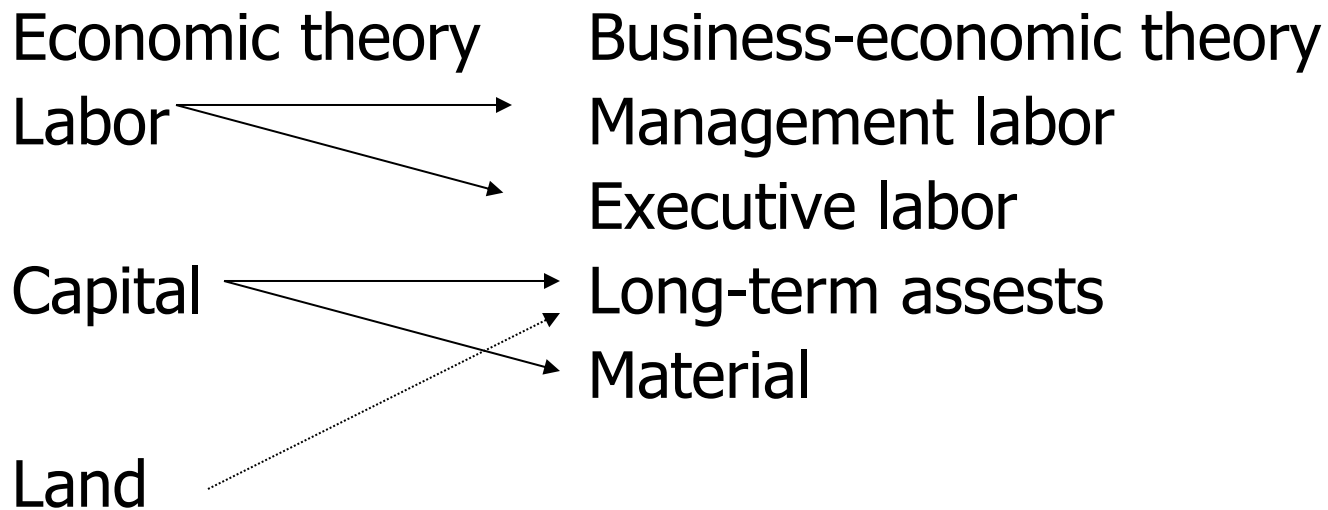
- **executive work,**
- **material,**
- **long-term tangible assets and**
- **managing work**

Managing work as a production factor is further divided into:

- **original**
- **derived**

System of production factors in an organization

- Different conception of the factors of economic and business-economic theory



System of production factors in an organization

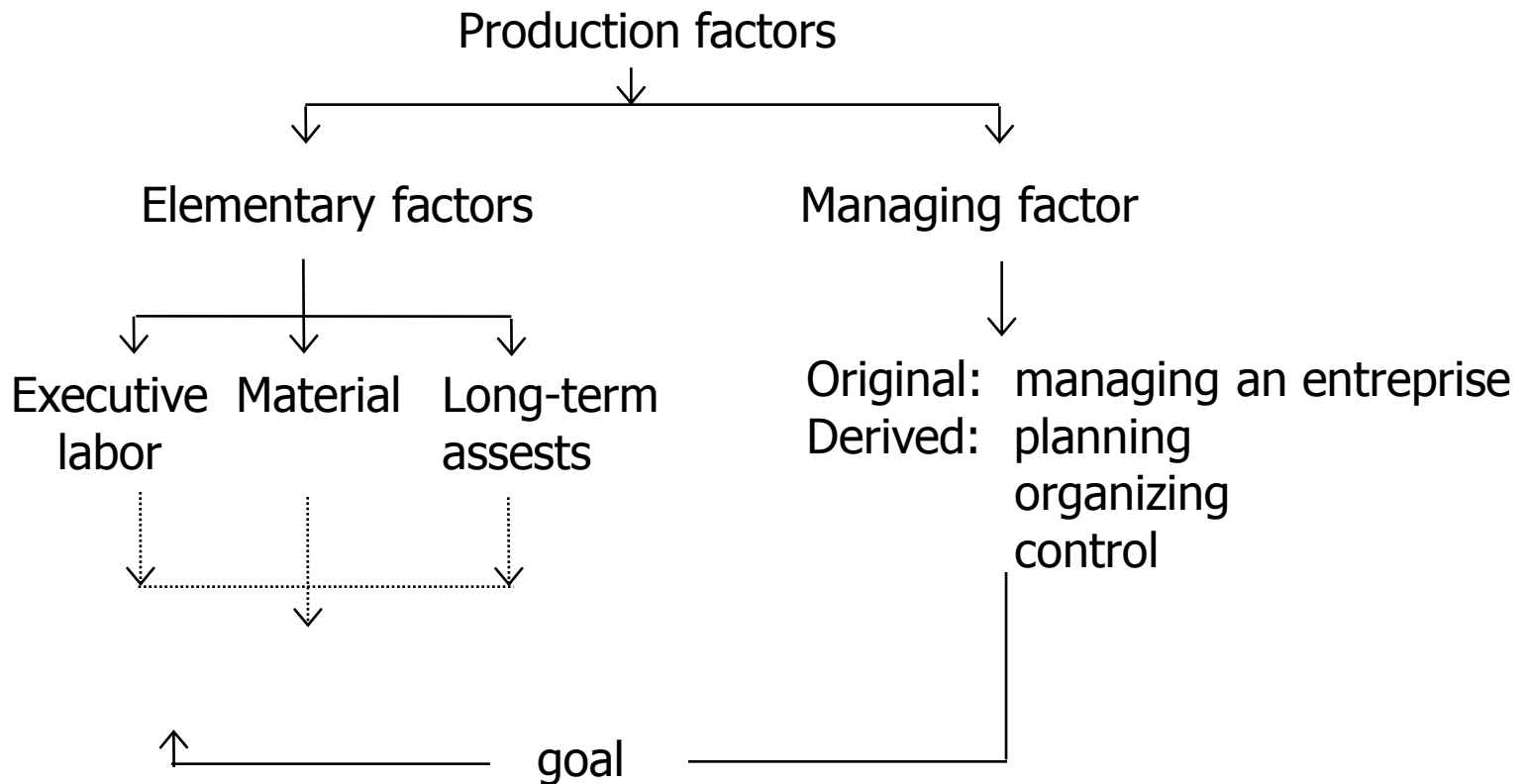


- The above-mentioned breakdown of factors of production is typical for a manufacturing enterprise where there is a majority of long-term tangible assets and material
- From the accounting point of view, the assets of an organization are divided into **current assets** (stocks of materials and goods, receivables, financial assets) and **long-term assets** (long-term tangible, intangible and financial assets)
- In the accounting view **inputs - production factors** (long-term assets and material, or supplied goods) are being mixed with **outputs** (produced products, goods ready for distribution, receivables)
- Money is from the accounting point of view a special type of goods that mediate the economic activity of an organization - they are neither output nor input

From the perspective of organizations, production factors can be distinguished as follows:

- Executive labor
- Managing labor
- Long-term assets (tangible, intangible and financial)
- Material (and goods)

System of production factors in an organization



Business and value engineering



- A **business** (**enterprise**, a **company** or a **firm**) is an organizational, economical and legal entity and made up of an association of people involved in the provision of goods and services to consumers , in order to achieve specific declared goals.(Aaker, 2010, wikipedia.org)
- Business as an activity can be divided into(Appleby, 1987):
 - People demanding goods and services - *consumers*
 - People involved in obtaining, arranging and transforming basic materials into finished products – *producers*
 - People involved in *distribution* the products to customers and others, or those involved in providing financial services.



Business economics and microeconomics

- Efficiency : relation between inputs and outputs
 - **Allocative (Pareto) efficiency**: any changes made to assist one person would harm another.
 - **Productive efficiency**: no additional output can be obtained without increasing the amount of inputs, and production proceeds at the lowest possible average total cost.

These definitions are not equivalent: a market or other economic system may be allocatively but not productively efficient, or productively but not allocatively efficient.

There are also other definitions and measures. All characterizations of economic efficiency are encompassed by the more general engineering concept that a system is efficient or optimal when it **maximizes desired outputs (such as utility)** given available **inputs**. (Source:wikipedia.org)



Business economics and microeconomics

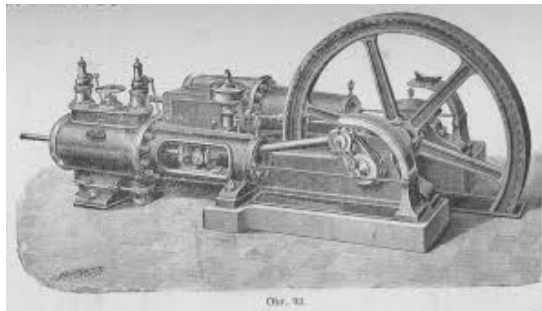
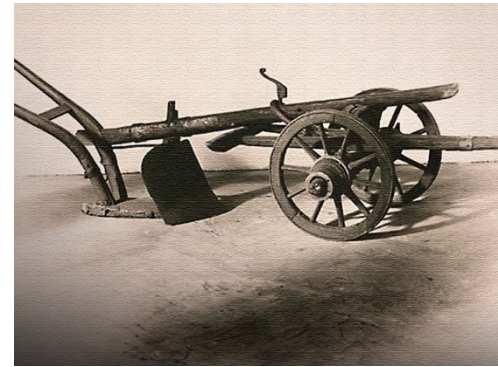
- Economic efficiency (used in microeconomics): Production of a unit of goods is considered to be economically efficient when that **unit of goods is produced at the lowest possible cost.**
- There are two concepts of efficiency⁽¹⁾:
- **Technological efficiency (TE)** occurs when it is not possible to increase output without increasing inputs. TE is an engineering matter. Given what is technologically feasible, something can or cannot be done.
- **Economic efficiency (EE)** occurs when the cost of producing a given output is as low as possible. EE depends on the prices of the factors of production. Something that is technologically efficient may not be economically efficient. But something that is economically efficient is always technologically efficient.
- (1) Moffatt, Mike. (2017, February 25). The Definition and Concepts of Economic Efficiency. Retrieved from <https://www.thoughtco.com/definition-of-economic-efficiency-1147869>



Factors of production

- Basic factors of production : Land, labor, capital.
 - **Primary factors:** land, labor, and capital goods
 - **Secondary factors:** material and energy (are obtained from land, labor and capital)
- The number and definition of factors varies, depending on theoretical purpose or economic school.
- Recent authors add the list of factors of production with - knowledge, information, human capital, skills etc.
- **Productivity** - is expressed as the ratio of output to inputs (factors of production) used in a production process, i.e. output per unit of input

Productivity





Management in an organization

The ultimate goal of an enterprise in a market economy is to achieve the highest possible profit in the long run and in fulfilling certain secondary conditions. The top goals of public administration organizations can (and usually are) different (not profit-oriented).

To achieve the goal, a unified enterprise management is created to plan the combination of production factors, organize their spending, and control the progress and results of business processes ⇒ **management labor (work)**

The role of managing an organization is to make (management) decisions

The main task managing an organization is to set specific goals

To achieve these goals, resources (production factors) are used

The use of management in an organization can then be expressed in a sequence of steps in the management activities:

- **setting targets**
- **planning**
- **decision making**
- **realization (organization)**
- **control**



Management in an organization

Goal setting is the starting point for the tasks of the managing factor.
Its content is to define the desirable state that is sought.

The goals of an organization are seen as a **structured system**.

This system has:

horizontal dimension = main and secondary goals

vertical dimension = main goals, intermediate goals and sub-goals.

Planning is a function of management of an organization, which focuses on finding alternative ways to achieve set goals

Decision making is placed behind planning ⇒ Outputs of the planning process are variations of the plan.

From the offered variants of paths to achieving the goal, one has to identify the one that best achieves the goal ⇒ **choosing one (optimal) plan variant**.



Management in an organization

Realization is carrying out of the selected plan variant. It includes the division of tasks and the organization of people, material resources and information in the intentions of the accepted plan.

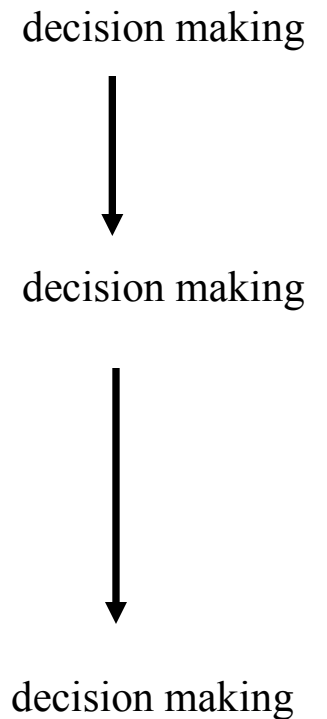
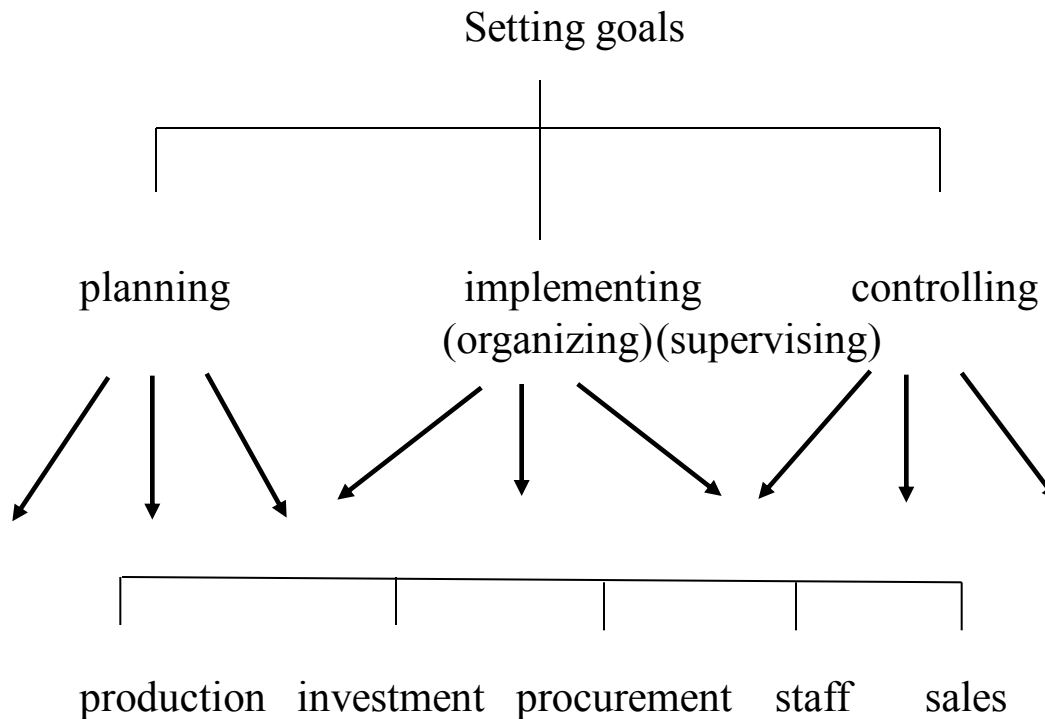
The content of the realization is not the implementation of individual tasks ⇒ **realization = organizing**, resp. organization.

Controlling is a function of business management that concludes basic explanation of managing factor tasks.

Through the control, the managing factor gets information to which extent and how the set goals are achieved.

The individual functions do not have to follow in the above order ⇒ they mutually intertwine and combine ⇒ **there are mutual relationships and feedback between them.**

Management in an organization





Division of power in managing an organization

In the market economy system, the management decisions in an organization are either the owners (the founder) or the bodies created by them - the managers

Organizations can be divided into:

- **ownership companies**
- **management companies**

Employees are (may be) involved in the decision-making process.

If the top management consists of several people, the way of making a decision is organized by using two principles:

- **directorial principle**
- **collegial principle**



Corporate governance

= management of companies, which deals with the best possible distribution of managing rights (competence) for the successful management and control of an organization

CG tasks:

- **Ensure choice and establishment of competent management**
- **Set a strategic direction to business development**
- **Supervise high business performance**

Basic principles of CG:

- **Personal responsibility of governing bodies (power division, motivation, up-to-date information)**
- **Transparency (transparent and complete information)**
- **Control (market, institutionalized)**

Productivity and management principles

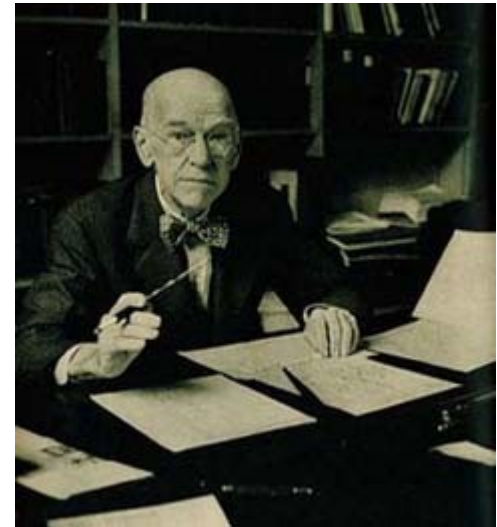
Principles of scientific management – F. W. Taylor

- Each worker should have a large, clearly defined, daily task.
- Standard condition are needed, to ensure the task is more easily accomplished.
- High payment to be made for successful completion of task. Workers should suffer loss when they failed to meet the standards laid down. (Appleby, 1987)
- Based on the time and motion study, eliminating 'false', 'slow' and 'useless' movements of laborers. Results: fast and successful completion of task.
- This conception was also used by the **Henry Ford** - the system of work is known as **Fordism** – effective mass production.



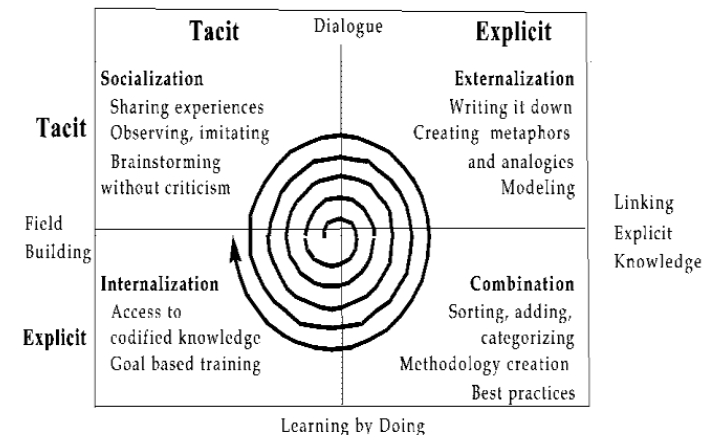
Productivity and management principles

- **Human relations school**– G. E. Mayo – Hawthorne experiment – psychological experiment at Hawthorne plant of the Western Electric Company.
- Attention focused on the components of job and work satisfaction on the part of employees.
- Result – The understanding of a person's needs would enable a manager to use more accurate methods to motivate subordinates.

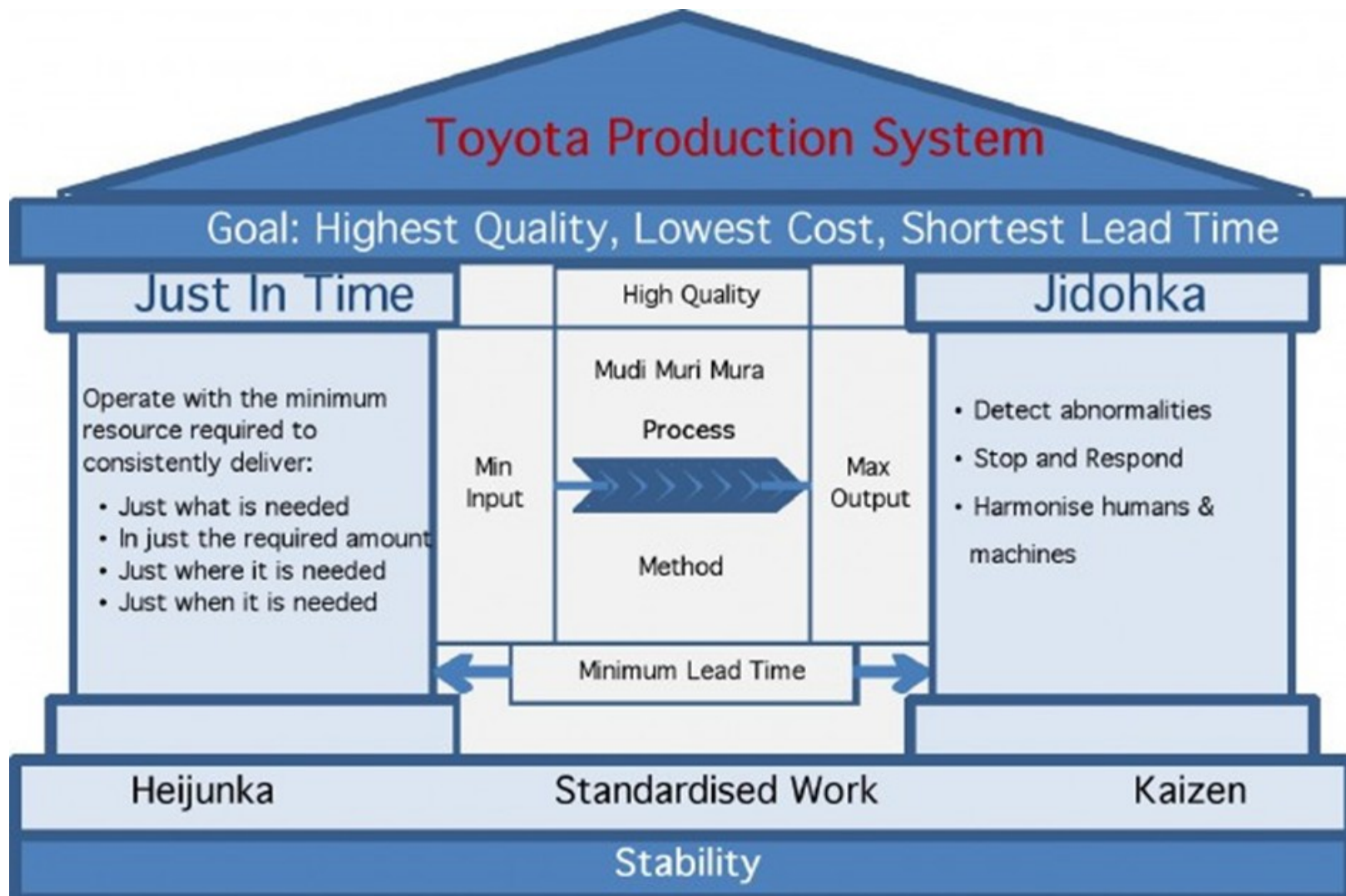


Productivity and management principles

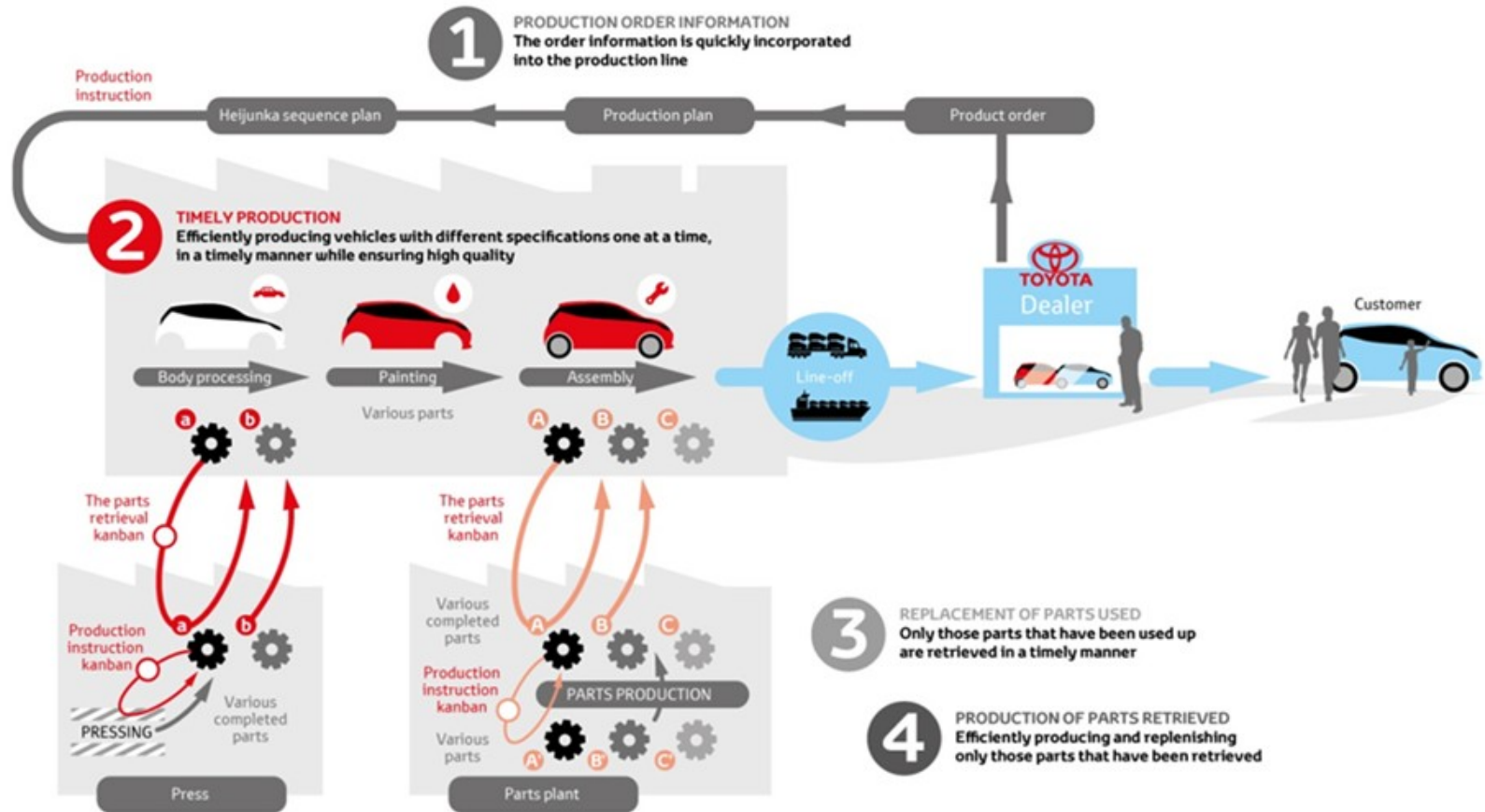
- **Knowledge management** - P. Drucker, I. Nonaka, H. Takeuchi
- **Forms of knowledge (Nonaka & Takeuchi, 1995):**
- **Explicit:** information or knowledge that is set out in tangible form.
- **Implicit:** information or knowledge that is not set out in tangible form but could be made explicit.
- **Tacit:** information or knowledge that one would have extreme difficulty operationally setting out in tangible form.
- „Tacit" knowledge is Nonaka and Takeuchi's example of the kinesthetic knowledge that was necessary to design and engineer a home bread maker, knowledge that could only be gained or transferred by having engineers work alongside bread makers and learn the motions and the "feel" necessary to knead bread dough (Nonaka & Takeuchi, 1995).
- Source: researchgate.net



Knowledge management in production example of Toyota Company

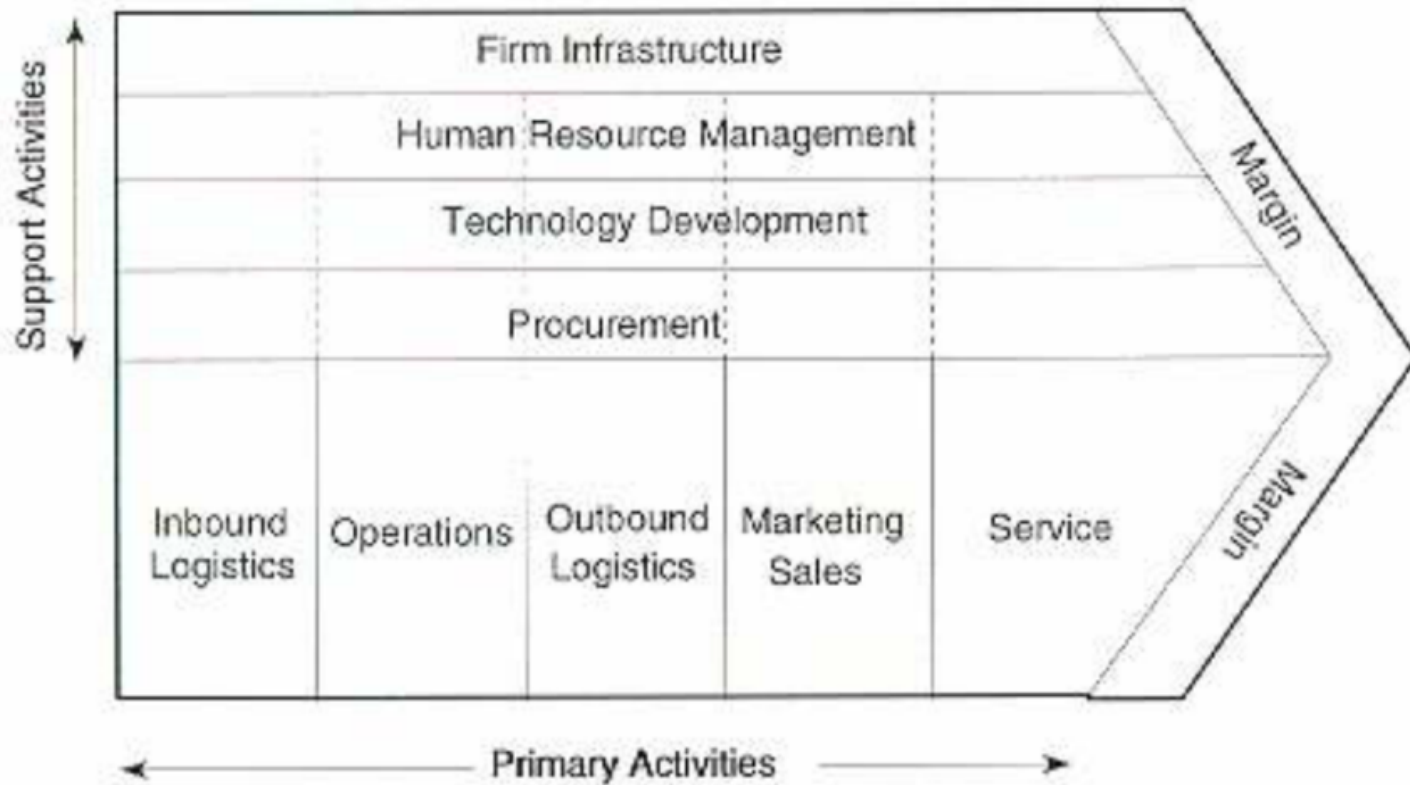


Knowledge management in production example of Toyota Company



<https://www.youtube.com/watch?v=Tc9IQLJI4AU>

Porter's value chain



Porter 's value chain

- A **value chain** is a set of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market (Porter, 1985).

Primary activities(Porter, 1985).

- *Inbound Logistics*: arranging the inbound movement of materials, parts, and/or finished inventory from suppliers to manufacturing or assembly plants, warehouses, or retail stores
- *Operations*: concerned with managing the process that converts inputs (in the forms of raw materials, labor, and energy) into outputs (in the form of goods and/or services).
- *Outbound Logistics*: is the process related to the storage and movement of the final product and the related information flows from the end of the production line to the end user
- *Marketing and Sales*: selling a product or service and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.
- *Service*: includes all the activities required to keep the product/service working effectively for the buyer after it is sold and delivered.

Porter 's value chain – primary activities,

Primary Activities	Inbound Logistics	<ul style="list-style-type: none"> - Receipt of inputs (materials) - Storage - Stock Control - Internal Distribution of Inputs
	Operations	<ul style="list-style-type: none"> - Transformation of inputs into final product - Use of Labour - Manufacturing Technologies
	Outbound Logistics	<ul style="list-style-type: none"> - Distribution of finished goods - Stock Control & Inventory - Distribution of final product to buyers
	Sales & Marketing	<ul style="list-style-type: none"> - Advertising - Promotional Activity - Persuading People to buy
	Service	<ul style="list-style-type: none"> - After sales support

- (Source: <http://strategy-models.blogspot.cz/2011/06/use-of-porters-1985-value-chain.html>)

Porter 's value chain

Support activities(Porter, 1985).

- *Infrastructure*: consists of activities such as accounting, legal, finance, control, public relations, quality assurance and general (strategic) management.
- *Technological Development*: pertains to the equipment, hardware, software, procedures and technical knowledge brought to bear in the firm's transformation of inputs into outputs.
- *Human Resources Management*: consists of all activities involved in recruiting, hiring, training, developing, compensating and (if necessary) dismissing or laying off personnel.
- *Procurement*: the acquisition of goods, services or works from an outside external source

Porter's value chain – support activities

Support Activities	Procurement	<ul style="list-style-type: none"> - Purchasing of Resources - Purchasing of inputs
	Technology Development	<ul style="list-style-type: none"> - Technology to support primary activities & operations
	Infrastructure	<ul style="list-style-type: none"> - Leadership Structure/Management - Planning/processes - Finance - Information Systems
	Human Resource Management	<ul style="list-style-type: none"> - Recruitment - Selection - Training - Reward & Motivation

- (Source: <http://strategy-models.blogspot.cz/2011/06/use-of-porters-1985-value-chain.html>)

Construction of value chain of the company

- Creation of value chain according Magretta(2012) :
- To define the basic operations and actions, used within the industry to create value for the customer.

Construction of value chain of the company

Ikea value chain:



Private Cabinet maker

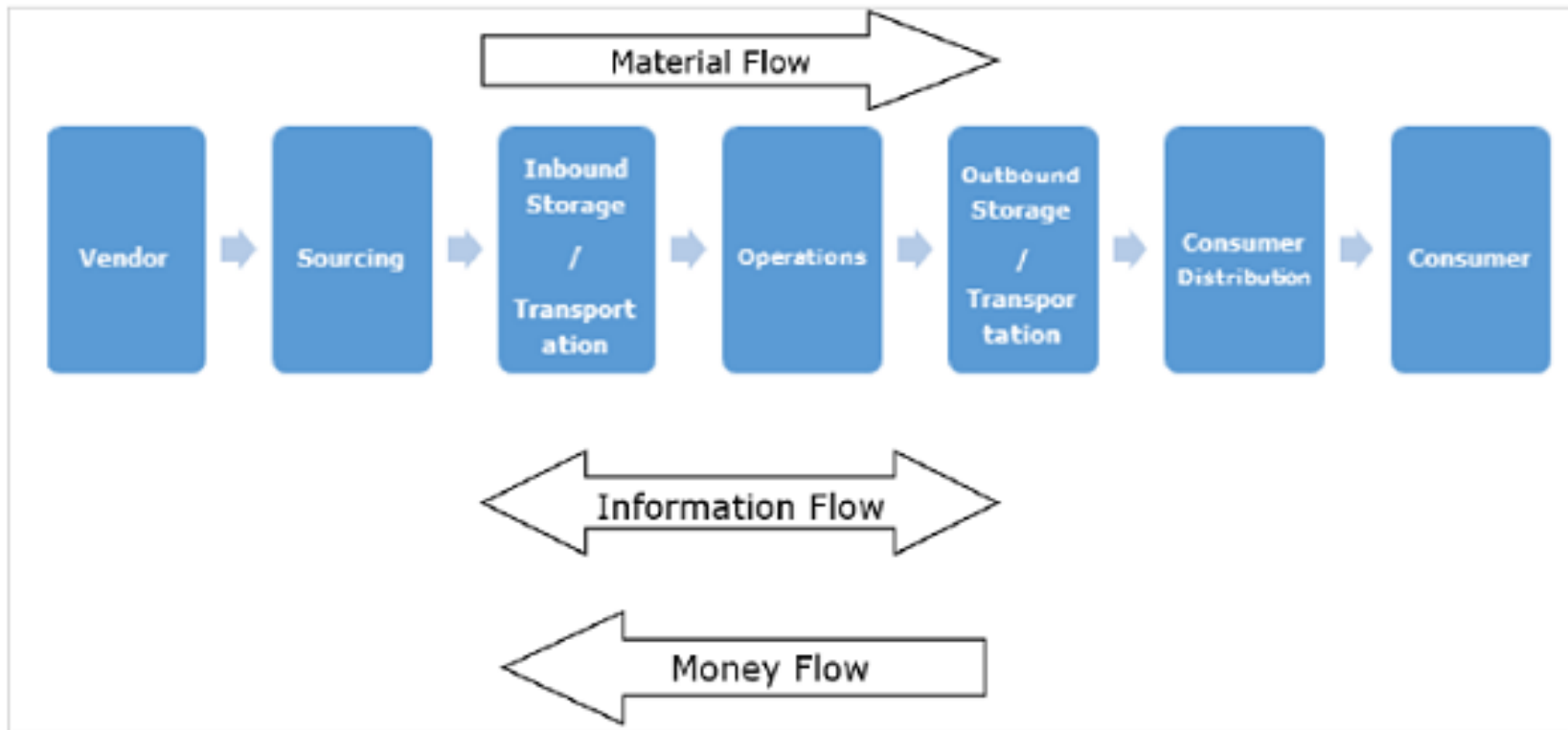


IKEA - suppliers



Material, information and money flow2

- Withon supply chain management



Material, information and money flow2

- There are three different types of flow in supply chain management:
- In short, to achieve an efficient and effective supply chain, it is essential to manage all three flows properly with minimal efforts. It is a difficult task for a supply chain manager to identify which information is critical for decision-making. Therefore, he or she would prefer to have the visibility of all flows on the click of a button.
- **Material Flow** - includes a smooth flow of an item from the producer to the consumer. This is possible through various warehouses among distributors, dealers and retailers.

- **Money flow** - On the basis of the invoice raised by the producer, the clients examine the order for correctness. If the claims are correct, money flows from the clients to the respective producer. Flow of money is also observed from the producer side to the clients in the form of debit notes.
- **Information/Data flow** - comprises the request for quotation, purchase order, monthly schedules, engineering change requests, quality complaints and reports on supplier performance from customer side to the supplier. From the producer's side to the consumer's side, the information flow consists of the presentation of the company, offer, confirmation of purchase order, reports on action taken on deviation, dispatch details, report on inventory, invoices, etc.

CASE STUDY – Apple Inc.



Business model – Apple Inc. (Source: [https://research-](https://research-methodology.net/apple-value-chain-analysis/)

methodology.net/apple-value-chain-analysis/)

Apple Inc. Inbound logistics

- Apple works with hundreds of suppliers around the globe and maintains a highly sophisticated supply-chain management. Apple's purchase commitments typically cover its requirements for periods up to 150 days. CEO Tim Cook is known for his strategy of getting suppliers to compete with each-other and he has reduced the numbers of suppliers considerably after becoming CEO in 2011.

Apple Inc. Operations

- Apple operations are divided into the following reportable operating segments: Americas, Europe, Greater China, Japan, Rest of Asian Pacific
- Apple operations are conducted by 116,000 full-time equivalent employees as of September 2016. Outsourcing of manufacturing to locations with lower costs of resources is the main source of value for Apple operations. Specifically, only some models of Mac computers are manufactured in USA and Ireland and the majority of Apple products are outsourced to manufacturing units based in Asia.

Apple Inc. Outbound logistics

- Apple outbound logistics involves warehousing and distribution of ready iPhones, iPads, Mac computers and other products produced by the company. E-commerce sales is rightly acknowledged by the company as a massive source of value in terms of inbound logistics, because e-commerce is more cost effective compared to sales via Apple Store. Due to the efforts of the company in this direction, Apple Inc. has become the third largest retailer in the US in terms of size of e-commerce business, only behind Amazon.com and Wal-Mart Stores Inc. Specifically, Apple Inc. has e-commerce sales of USD 12 billion and this figure accounts to about 5.1 per cent of company's total sales

Apple Inc. Marketing and Sales

- Apple sells its products through the following seven sales channels:
- Apple retail stores, Apple online store, Direct sales force, Third-party cellular network carriers, Wholesalers, Retailers, Value-added resellers
- During 2016, the company's net sales through its direct and indirect distribution channels accounted for 25 per cent and 75per cent , respectively, of total net sales. Apple advertising budget has been increasing consistently since the takeover of Tim Cook as CEO in 2011 to reach a record of USD 1.8 billion in 2015. Interestingly, the company chose not to disclose its marketing budget for 2016.

Apple Inc. Service

- Apple is famous for exceptional quality of customer services during all three stages: pre-purchase, during the purchase and post-purchase. The company maintains Apple experience centres in major cities around the globe where anyone can use its products to become convinced about the quality. Apple sales assistants are usually trained and polite young males and females who are technically savvy and happy to demonstrate product features and capabilities. Post-purchase customer service is also impressive with unique iPhone trade-in programs that allow iPhone users to upgrade their phone to newer models with additional payment.

