



2ND YEAR

AJS

LEC 1



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Accounting Information Systems

The starting point in this chapter is to define the **system, data, information**, and the **value of information**.

تمثل نقطة البداية في هذا الفصل في تعريف النظام والبيانات والمعلومات وقيمة المعلومات.

1-What is the meaning of the system?

System is defined as “a set of two or more interrelated components that interact to **achieve a goal**.”

يُعرف النظام بأنه ”مجموعة من مكونين أو أكثر من المكونات المترابطة التي تتفاعل فيما بينها لتحقيق هدف ما.“

1. Most systems are composed of **smaller subsystems**.

ت تكون معظم الأنظمة من أنظمة فرعية أصغر حجماً.

2. Each subsystem should be designed to achieve one or more of the organizational goals.

يجب تصميم كل نظام فرعي لتحقيق واحد أو أكثر من الأهداف التنظيمية.

For example: the company is a system consists of subsystems such as production department, sales department, marketing department, HR department, etc. in addition the company itself may be a subsystem of a holding company.

على سبيل المثال: الشركة عبارة عن نظام يتكون من أنظمة فرعية مثل قسم الإنتاج، قسم المبيعات، قسم التسويق، قسم الموارد البشرية، الخ، بالإضافة إلى أن الشركة نفسها قد تكون نظاماً فرعياً لشركة قابضة.

True or False

1. System is a set of independent components that interact to achieve a certain goal. (**False**)
2. Each subsystem is designed to achieve only one goal of the larger system goals. (**False**)

Inside any system there may be:



occurs when the action of the subsystem is inconsistent with the goals of another subsystem or with the system as whole

يحدث عندما يكون عمل النظام الفرعي غير متناسب مع أهداف نظام فرعي آخر أو مع النظام ككل

occurs when the subsystem achieves its goals that contribute to (are consistent with) the goal of the system as whole

يحدث عندما يحقق النظام الفرعي أهدافه التي تساهم في (تنتفع مع) مع) هدف النظام ككل

The larger and more complicated the system the more difficult to achieve goal congruence because of the difficulty of attaching the subsystem goals with the organization's overall-goal

وكلاً كان النَّظَامُ أَكْبَرُ وَأَكْثَرُ تَعْقِيْدًا كَلَمَا كَانَ تَحْقِيقُ تَطْبِيقِ الْأَهْدَافِ أَكْثَرُ صَعْوَدَةً بِسَبَبِ صَعْوَدَةِ رِبَطِ أَهْدَافِ النَّظَامِ الْفَرْعَوِيِّ مَعَ الْأَهْدَافِ الْعَامَّةِ لِلْمُؤْسَسَةِ.

True or False

1. Goal congruence occurs when a subsystem achieves its goals that are consistent with the goal of the system as whole. (**True**)
2. the larger the system the more difficult to achieve goal conflict. (**False**)

MCQ question:

-This results when a subsystem action is inconsistent with the organization's overall goal.

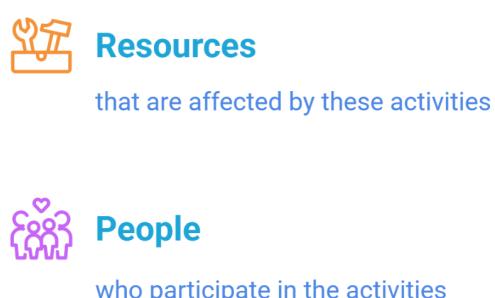
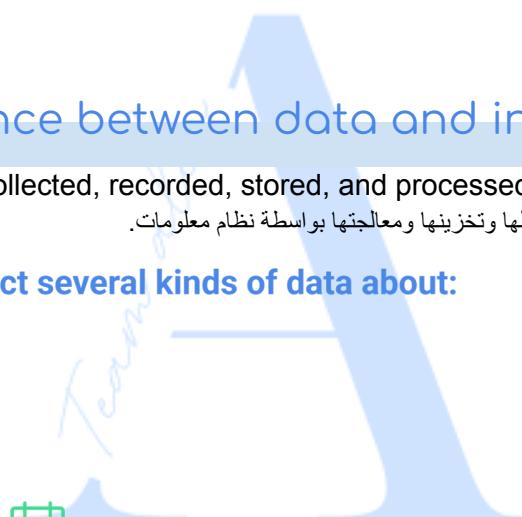
- A. Goal conflict
- B. Goal congruence
- C. System conflict
- D. None of the above.

2- What is the difference between data and information?

Data are defined as "Facts that are collected, recorded, stored, and processed by an information system.

يتم تعريف البيانات على أنها "الحقائق التي يتم جمعها وتسجيلها وتخزينها ومعالجتها بواسطة نظام معلومات.

Companies need to collect several kinds of data about:



For example:

-If the company sold goods, it needs to collect data about the following:

1. **Activity** → the total amount of sales - the date of sales.
2. **Resources** → type of goods sold - quantity sold.
3. **People who participated** → customer - salesperson.

إذا كانت الشركة تبيع السلع، فإنها تحتاج إلى جمع بيانات حول ما يلي:

النشاط → المبلغ الإجمالي للمبيعات - تاريخ المبيعات.

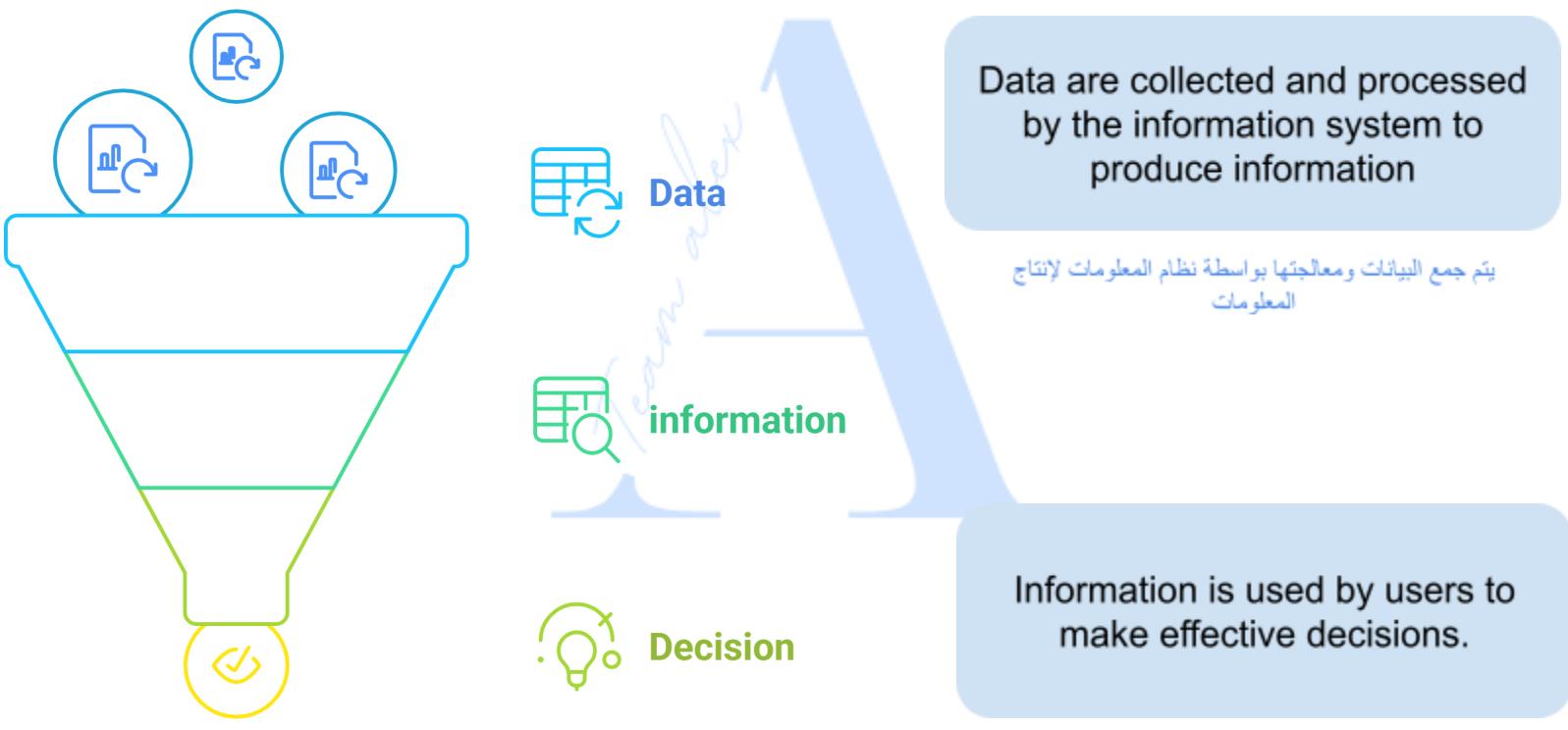
الموارد → نوع البضائع المباعة - الكمية المباعة.

الأشخاص الذين شاركوا → عميل - مندوب مبيعات.

Information is defined as “Data that have been organized and processed to provide meaning to users and improve the decision-making process.

يتم تعريف المعلومات على أنها ”البيانات التي تم تنظيمها ومعالجتها لتوفير معنى للمستخدمين وتحسين عملية صنع القرار“

Transforming Data into Decisions



يتم جمع البيانات ومعالجتها بواسطة نظام المعلومات لإنتاج المعلومات

يتم استخدام المعلومات من قبل المستخدمين لاتخاذ قرارات فعالة.

users make better decisions as the quantity and quality of information increase.

يتخذ المستخدمون قرارات أفضل مع زيادة كمية ونوعية المعلومات.

Note that:

There are limits to the amount of information the human mind can assimilate (absorb) and process

هناك حدود لكمية المعلومات التي يمكن للعقل البشري استيعابها (استيعابها) ومعالجتها

Information overload:

"Occurs when the information available to the decision maker (user) passes the amount of information that he can effectively assimilate & process." This may result in:

يحدث عندما تتجاوز المعلومات المتاحة لصانع القرار (المستخدم) كمية المعلومات التي يمكنه استيعابها ومعالجتها بفعالية.“ وقد ينتج عن ذلك:

- decreasing in decision-making quality

انخفاض في جودة اتخاذ القرار

- increasing in the cost of providing that information

الزيادة في تكلفة توفير تلك المعلومات

To mitigate this problem, Information system designers use **information technology (IT)** to help decision makers more effectively filter the more useful information.

ولتخفيف من حدة هذه المشكلة، يستخدم مصممو نظم المعلومات تكنولوجيا المعلومات لمساعدة صانعي القرار على تصفية المعلومات الأكثر فائدة بشكل أكثر فعالية.

Information technology (IT) → computers and other electronic devices

MCQ question:

- occurs when the produced information passes the amount of information that human can effectively absorb & process.
 - Information overload**
 - Information excess
 - Information deficit
 - Information discretion

True or False

- Information overload results in improving the decision-making quality and increasing the cost of producing the information. (**Fales**)

3- What is the meaning of value of information?

Value of information



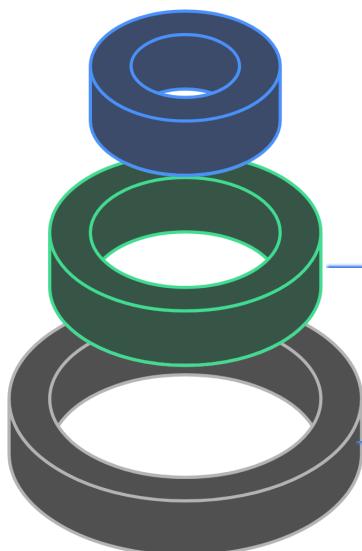
is the

Benefits realized from the information



minus the

Cost of producing the information



1. Improving the decisionmaking process

2. Reducing uncertainty

3. Improving the ability to plan and schedule the activities

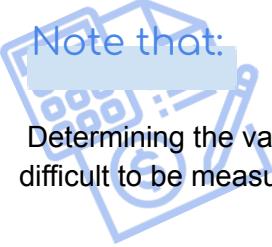
تحسين عملية صنع القرار.

الحد من عدم اليقين.

تحسين القراءة على التخطيط وجدولة الأنشطة.

Time, effort, and resources that are spent to produce and distribute the information.

الوقت والجهد و الموارد التي تم إنفاقها لإنتاج و توزيع المعلومات.

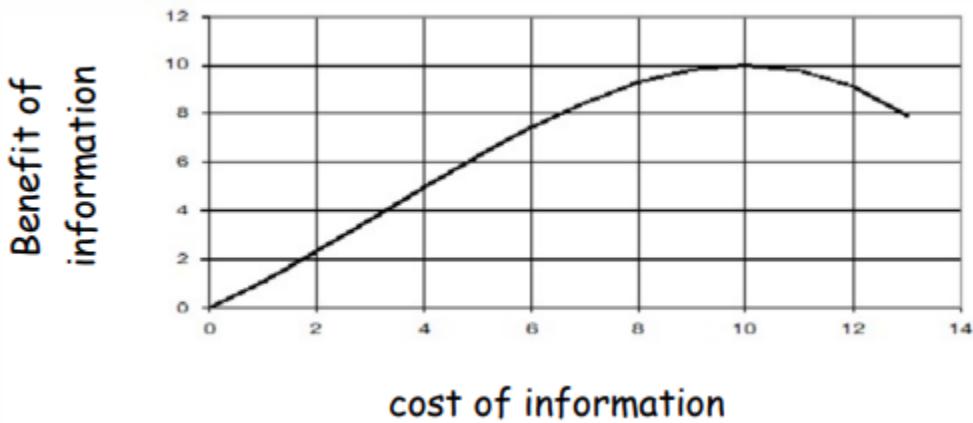


Note that:

Determining the value of information is not easy, because the costs and benefits of information are often difficult to be measured quantitatively.

ليس من السهل تحديد قيمة المعلومات، لأن تكاليف وفوائد المعلومات غالباً ما يكون من الصعب قياسها كمياً.

MCQ question:



- Refer to this chart, at what point measured in terms of the cost of information does information overload begin?
 - a. 0
 - b. 2
 - c. 5
 - d. 10
 - e. 12

4- What are the types of information?

There are two types of information:

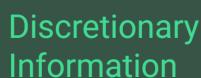
(Essential information)



Information that is supplied to the **external users** to meet the requirements of standards and regulations.

For example: financial statements information

(Voluntary information)



Information that is supplied to the **internal users (managers)** to help them in decision making process.

For example: information about employees' performance



Mandatory information **is supplied to** External Users

Discretionary information **is supplied to** Internal Users

MCQ question:

1. The primary consideration when producing this type of information is that its benefits should exceed its costs.
 - a. **Discretionary information**
 - b. Essential information
 - c. Mandatory information
 - d. None of the above

True or False

1. Discretionary information has more details because it focuses on segments or departments or products. (**True**)
2. Mandatory information is supplied to the internal users especially managers to help them in decision-making process. (**False**)

5- What are the characteristics of useful information?

Useful information should have the following characteristics:

Relevance 	<p>the information will be relevant if:</p> <ul style="list-style-type: none"> ▪ it reduces uncertainty. ▪ it influences (makes difference in) decisions by helping users in: forming their expectations about the future or correcting any previous expectations
Faithful representation 	<p>the information will be faithfully represented if it is:</p> <p>complete free from bias (neutral) free from errors (accurate)</p>
Timeliness 	<p>the information will be timely if:</p> <p>it is provided for users in a proper time to help them in decision-making process</p>

Verifiability 	the information will be verifiable if: two or more independent users can reach the same result using the same information
Comparability 	the information will be comparable if: user(s) can compare the information with similar information of other organizations or with similar information of the same organization for another period. it requires that information is to be prepared and reported in a similar manner over the time.
Understandability 	the information will be understandable if: it is presented in a clear and comprehensible format
Accessibility 	the information be accessible if: it is available to users when they need

MCQ question:

1. Which of the following is not of the useful information characteristics?
 - a. Comparability
 - b. Relevance
 - c. **Conservatism**
 - d. None of the above
2. Information that reduces uncertainty, improves decision makers' ability to make predictions, or corrects their prior expectations, is said to be:
 - a. Verifiable
 - b. **Relevant**
 - c. Understandable
 - d. Timely
3. Accessibility as one of the useful information characteristics means that:
 - a. Information is reported in a clear format.
 - b. Information is timely available.
 - c. Information is reported in a similar manner over the time.
 - d. **Information is available to users when they need**



4. Company (A) issuing its annual information within only one month of the end of the year, is an example of information
 a. Relevance
 b. Verifiability
c. Timeliness
 d. Faithful representation
5. Producing the same information by two knowledgeable people acting independently, is an example of information
 a. Understandability
b. Verifiability
 c. Relevance
 d. comparability
6. To be faithfully represented, information must be all the following except:
 a. Complete
 b. Free from errors
c. Predictive
 d. Neutral

