

## **What is an Accounting Information System (AIS)**

An information system is a formal process for collecting data, processing the data into information, and distributing that information to users. The purpose of an accounting information system (AIS) is to collect, store, and process financial and accounting data and produce informational reports that managers or other interested parties can use to make business decisions.

## **Functions of an Accounting Information System**

Accounting information systems have three basic functions:

1. The first function of an AIS is the efficient and effective collection and storage of data concerning an organization's financial activities, including getting the transaction data from source documents, recording the transactions in journals, and posting data from journals to ledgers.
2. The second function of an AIS is to supply information useful for making decisions, including producing managerial reports and financial statements.
3. The third function of AIS is to make sure controls are in place to accurately record and process data.

## **Parts of an Accounting Information System**

An accounting information system typically has six basic parts:

1. *People* who use the system, including accountants, managers, and business analysts
2. *Procedure* and instructions are the ways that data are collected, stored, retrieved, and processed
3. *Data* including all the information that goes into an AIS
4. *Software* consists of computer programs used for processing data
5. *Information technology infrastructure* includes all the hardware used to operate the AIS
6. *Internal controls* are the security measures used to protect data

**1) People:** The people in AIS are the system users. An AIS helps the different departments within a company work together. Professionals who may need to use an organization's AIS include:

- Accountants
- Consultants
- Business analysts
- Managers
- Chief financial officers
- Auditors

**2) Procedure:** The procedure and instructions of AIS are the methods it uses for collecting, storing, retrieving, and processing data. These methods are both manual and automated. The data can come from both internal sources (e.g., employees) and external sources (e.g., customers' online orders). Procedures and instructions will be coded into the AIS software. However, the procedures and instructions should also be "coded" into employees through documentation and training. The procedures and instructions must be followed consistently in order to be effective.

**3) Data:** AIS must have a database structure to store information, such as structured query language (SQL), which is a computer language commonly used for databases. SQL allows the data that's in the AIS to be manipulated and retrieved for reporting purposes. The data contained in an AIS is all of the financial information pertinent to the organization's business practices. The type of data included in an AIS depends on the nature of the business, but it may consist of the following:

- Sales orders
- Customer billing statements
- Sales analysis reports
- Purchase requisitions
- Vendor invoices
- Check registers
- General ledger
- Inventory data
- Payroll information
- Timekeeping
- Tax information

The data can be used to prepare accounting statements and financial reports,

**4) Software:** The software component of AIS is the computer programs used to store, retrieve, process, and analyze the company's financial data. Before there were computers, an AIS was a manual, paper-based system, but today, most companies are using computer software as the basis of the AIS.

**5) Infrastructure:** Information technology infrastructure is just a fancy name for the hardware used to operate the accounting information system. Most of these hardware items a business would need to have anyway and can include the following:

- Computers
- Mobile devices
- Servers
- Printers
- Surge protectors
- Routers
- Storage media
- A back-up power supply

In addition to cost, factors to consider in selecting hardware include speed, storage capability, and whether it can be expanded and upgraded.

**6) Internal Controls:** The internal controls of an AIS are the security measures it contains to protect sensitive data. These can be as simple as passwords or as complex as biometric identification. Biometric security protocols might include storing human characteristics that don't change over time, such as fingerprints, voice, and facial recognition.

## **The Reliability of Accounting Information Systems**

Because AIS stores and provides such valuable business information, reliability is vitally important. The American Institute of CPAs (AICPA) and Canadian Institute of Chartered Accountants (CICA) have identified five basic principles important to AIS reliability:

1. *Security* – Access to the system and its data is controlled and limited only to those authorized.
2. *Confidentiality* – The protection of sensitive information from unauthorized disclosure.
3. *Privacy* – The collection, use, and disclosure of personal information about customers is done in an appropriate manner.
4. *Processing integrity* – The accurate, complete, and timely processing of data done with proper authorization.
5. *Availability* – The system is available to meet operational and contractual obligations.