A Guide to Using Accounting Information Systems

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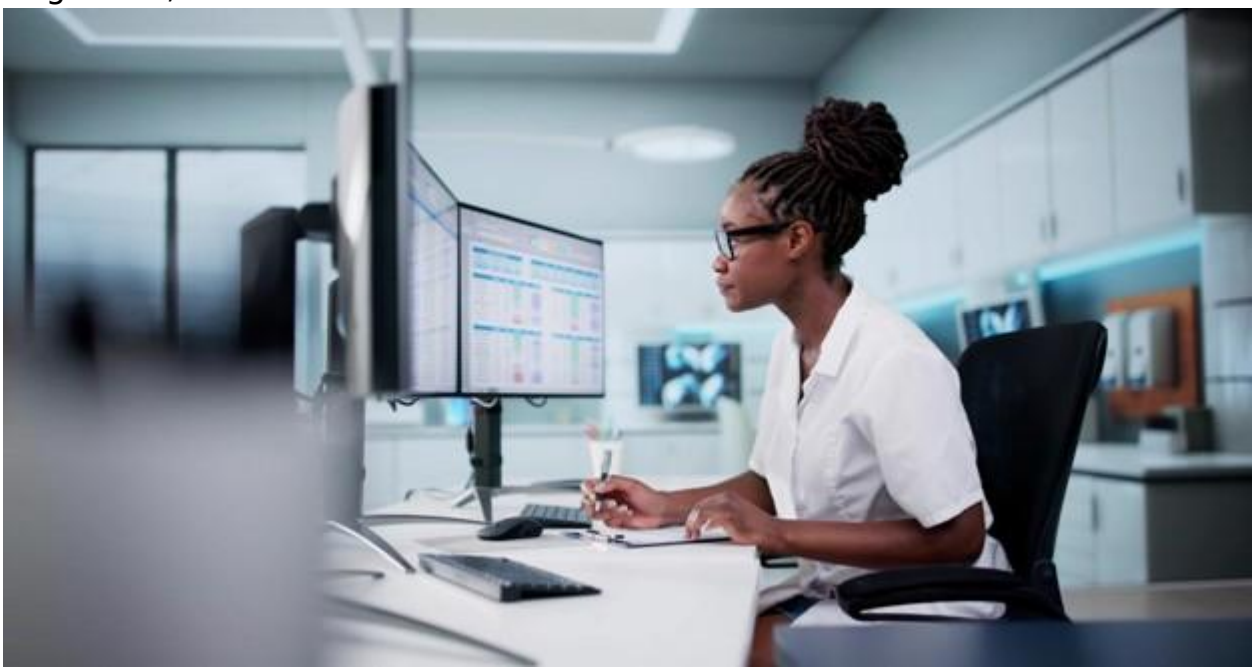

Accounting information systems (AISs) have defined the daily work of accountants and analysts in every industry for decades. Today, organizations use these systems to keep track of their money, including their invoices, payroll payments, and financial reports. Accounting information systems have evolved significantly since the advent of digital technologies such as cloud computing, artificial intelligence (AI), and data analytics, which are influencing the manner in which financial data is collected and processed.

For those looking to become a certified public accountant (CPA), knowing how these systems operate, what they require to operate efficiently, and where they are headed can provide a real advantage in their accounting career.

What Is an Accounting Information System?

An accounting information system is the framework an organization uses to collect, store, and organize its financial data. It generally comprises the software and infrastructure that processes the information, though it also can broadly be considered to include the people who enter and review the data, the procedures that guide them, and the financial data itself. Early systems relied on paper ledgers.

Modern ones are typically computer-based or digital.

A wide range of accounting software programs of various types and forms are available for organizations to use to support their accounting information system needs, each built from a mix of accounting knowledge and computer science.

The type of data these systems hold is extensive. It includes payroll records, inventory and sales figures, and tax records. Because the volume of data can be overwhelming, accounting information systems are designed to condense it into reports that are easy to read and use. Different people rely on these accounting reports for different purposes.

Who Uses the Reports an AIS Produces?

Accounting information systems serve a wide audience inside and outside an organization. The people who draw from their reports include the following.

Accountants and Auditors

Accounting information systems' reports help accountants and auditors monitor and analyze financial data. For example, they use them to check whether their organization's payroll is running correctly and to investigate possible fraud. The Association of Certified Fraud Examiners reports that organizations employing proactive data analysis to find fraud can cut their fraud losses by 53 percent. They also catch fraud nearly twice as fast as those who do not monitor data for fraud signs.

Tax Agencies

Accountants and auditors also pull information from accounting information systems' reports to ensure their organization is accurately reporting its income and expenses to tax agencies. This helps organizations safely avoid an IRS audit, which is a detailed review of the organization's financial records.

Investors

Investors use the reports to determine a company's financial health and to assess it as an investment opportunity. They consider the company's operations and investments, debt, and other factors when making their investment decisions. They may look at the following:

- **Balance sheet**: Compares what a company owns to what it owes
- **Income statement**: Lists revenue, expenses, gains, and losses
- **Cash flow statement**: Indicates if the company has enough cash to cover its bills

Owners and Managers

Owners and managers make staffing and project decisions based on the numbers in accounting reports. They often use key performance indicators (KPIs) to evaluate their organization's progress toward specific business goals. These quantifiable measures help them decide when to hire and whether to pursue new initiatives that could benefit the organization.

AIS Resources

The following resources provide additional information about accounting information systems, including their history and how they are used.

- EBSCO, "Accounting Information System (AIS)": This resource describes why an AIS is crucial for managing financial data and helping accountants, tax agencies, and financial decision-makers. It includes software, hardware, and the procedures team members use to collect and analyze this data.
- *Global Journal of Flexible Systems Management*, "Role of Emerging Technologies in Accounting Information Systems for Achieving Strategic Flexibility Through Decision-Making Performance: An Exploratory Study Based on North American and South American Firms": According to this study, integrating AIS and business intelligence tools into an organization's processes can improve its decision-making, strategic flexibility, and level of innovation.
- Netgain, "The History of Accounting Technology: From Clay Counters to Cloud Software": Accounting technology history points to the first computer-based accounting tools that emerged in the 1950s and 1960s as the origins of modern AISs. Personal computers made software more accessible to smaller organizations in the 1980s. Today, most systems run in the cloud, giving accountants real-time data and remote access.

How Do Accounting Information Systems Work?

Accounting information systems help organizations manage their financial data smoothly. They manage the flow of information from data entry to reporting. These

systems are mainly software-based and can be integrated into an organization's overall information technology (IT) infrastructure.

AISs can streamline key tasks, such as tax preparation, reporting, and auditing, for accountants and auditors. However, their main aim is to support an organization's decision-making process. After data has been gathered and organized, the system displays it in a format that is easily digestible for managers and executives to use to make informed decisions.

Deploying the System

Implementing an accounting information system is no different from implementing other software. The accounting software must be carefully designed, tested, and deployed to avoid disrupting existing operations or causing an outage. There is a real risk that the software deployment will fail, which is why large organizations take extra precautions when the system supports their critical financial functions.

Supporting Compliance

AISs play an important legal role for public companies. These companies are required to employ strong audit and regulatory controls under the Sarbanes-Oxley Act (SOX), which was passed in 2002 in the wake of the WorldCom, Enron, and Tyco financial scandals. A good accounting information system is part of these controls, helping a company ensure they are SOX compliant and providing their investors with a clear, accurate picture of the company's financial information.

Key Components of AISs

To operate successfully, AISs require six components: people, procedures and instructions, data, software, IT infrastructure, and internal controls. Understanding the role each of these components plays can help individuals who are looking to advance in their accounting careers fully grasp the structure of an AIS.

People

The people component includes everyone who interacts with the system, from accountants and auditors to chief financial officers and financial analysts. A well-managed AIS enhances collaboration within an organization, enabling teams in every department from sales to accounting to work together and gain insights from the same data.

Procedures and Instructions

The procedures and instructions are the guidelines that outline how an organization gathers, stores, processes, and shares its financial information. The methods the organization uses can be manual or automated, but they are most effective when they are consistently followed by employees. Organizations with integrated accounting systems often need to train their employees on these procedures and instructions.

Data

An AIS holds all the business information that influences an organization's finances, including its inventory data, tax details, general ledger entries, customer billing statements, payroll records, and vendor invoices. Items such as memos and correspondence are not included, as they fall outside the scope of financial record-keeping.

Software

The software manages the storage, retrieval, processing, and analysis of the financial data. Most organizations have moved away from outdated manual systems, preferring automated accounting systems for their time savings. Sarbanes-Oxley regulations play a key role in shaping the software's structure for public companies.

IT Infrastructure

The IT infrastructure is the hardware that supports the system, including the computers, servers, and routers. The equipment must be compatible with the chosen software and able to operate alongside the organization's other applications.

Internal Controls

Internal controls are the security measures designed to protect the data within the system. These can range from passwords to biometric verification and encryption measures. Since an AIS contains sensitive information, such as Social Security numbers and credit card details, these controls ensure that access to the system is limited to authorized users.

Accounting Information Systems and AI

Digital technologies, from automation tools to AI, are helping to transform the accounting profession. This includes changing how professionals work with accounting information systems. Some routine accounting tasks are now able to be automated using these tools, but the need for people to operate and use these systems will still exist.

Because these tools can make accounting and auditing processes run more efficiently, demand for professionals skilled in using these tools has been increasing. Accountants and auditors are projected to see 5 percent job growth from 2024 to 2034, which is faster than the projected average growth for all occupations, according to the U.S. Bureau of Labor Statistics.

What Automation Changes About the Work

With accountants increasingly able to use AI and automation to complete routine tasks more efficiently, they now have more time to focus on strategic analysis and advisory tasks.

In a survey of 1,446 finance and accounting professionals by the Association of International Certified Professional Accountants (AICPA) and the Chartered Institute of Management Accountants (CIMA), 88 percent of respondents said the increasing use of AI would be the profession's most transformative technology trend over the following 12 to 24 months.

This shift opens the door for professionals to build future-ready skills in technical interpretation, professional judgment, and clear communication. Those entering the field can strengthen their value by combining their technology skills with their ability to explain the meaning behind financial data.

What the Career Path Looks Like

Individuals with the right education, accounting skills, and confidence in using AI, automation, and data analytics can pursue any of a number of career paths. Every individual's career journey is different, but it typically involves getting an education, gaining experience, building new skills, and, for many, obtaining a CPA credential.

Education

Accountants and auditors typically need to have at least a bachelor's degree in accounting or a related field. Some employers prefer candidates who hold a

master’s degree in accounting or a Master of Business Administration with an Accounting concentration.

Experience

Professionals often begin in entry-level roles, gaining foundational experience in recording transactions, preparing reports, evaluating performance, and supporting financial decisions. This experience can serve as a stepping stone for accountants to move into personal financial advisory, management analysis, or leadership roles such as controller or chief financial officer.

Skills

Advanced analytics and AI in accounting skills are becoming increasingly important, as the demand continues to grow for professionals who can analyze data, assess risks, and make data-informed decisions. To improve their career prospects, individuals need to develop technical skills in areas such as data visualization, AI, and accounting information systems. The growing use of AI also increases the importance of communication, critical thinking, adaptability, and leadership capabilities, which are key to making sound professional judgments.

Certification

Gaining a professional credential can improve an individual’s employment and career advancement prospects. Obtaining certification in a specialized area, such as by becoming a licensed certified public accountant, demonstrates advanced knowledge and professional competence. Becoming a CPA often is linked to a higher earning potential as well: According to Investopedia, CPAs typically earn about 25 percent more than accountants who do not hold the credential.

Where Accounting Information Systems Fit in Accounting Work

Accounting information systems convert financial data into reports that support an organization’s planning, compliance, risk management, and decision-making. As AI, automation, and analytics take over their more routine tasks, accountants will increasingly focus on interpreting data, exercising ethical judgment, and communicating useful insights.

Individuals who understand these systems and develop accounting, technology, and business skills will be better prepared for the evolving responsibilities and career

opportunities in the accounting profession.