# Chapter 1
# ACCOUNTING INFORMATION SYSTEMS AND THE ACCOUNTANT

## Discussion Questions

**1-1.** The answer to this question will vary with each university's location. However, it is likely most students will reveal that their parents are employed in non-manufacturing jobs. Instructors may wish to emphasize that the large numbers of service sector employees and knowledge workers reflect a trend.

**1-2.** This question encourages students to think about some of the information reporting limitations imposed by the traditional accounting general ledger architecture. Other business activities (or business events) that do not require journal entries include (1) obtaining a line of credit, (2) issuing purchase requisitions or purchase orders, (3) signing contracts, (4) hiring a new executive, and (5) sending financial information to investors or bank loan personnel. Instructors may wish to point out that important information about a company's business activities may be included in an annual report outside the financial statements. The management letters and footnotes in annual reports may reveal much about a company's future prospects.

Managers have access to much more information than what is published in financial reports. Whether or not they would like to have access to more non-financial information, or if they would prefer that the accounting information system capture data about business events rather than accounting transactions, is debatable. It may also be a function of the accounting system in a particular company. Investors may wish to have more information available to them but the downside is that too much information can be just as problematic as too little information.

**1-3.** The financial accounting systems we have known for more than 500 years are changing dramatically as a result of advances in information technology and financial accounting software. For example, databases allow accountants to collect and store all the data (accounting transaction data and non-financial data) about a business activity or event in one system, allowing those needing such information to retrieve it quickly, efficiently, and specifically in any format they wish. Financial data can also be more easily linked to nonfinancial data because of database technology. Thus, it is likely that financial reporting will undergo tremendous change in the next few years as we learn to use technology, including artificial intelligence, more effectively in the design of AISs.

ERP systems are another example of the information age's impact on financial accounting. Now, organizations capture more financial and non-financial data and produce more information than ever before. This allows companies to integrate their information systems, better forecast everything from raw materials requirements to finished product production, and to perform more sophisticated analyses of important business functions. For instance, sales can be examined at many different levels and organized according to criteria such as geography, customer, product, or salesperson.

One of the most important changes in AISs is the way these systems will gather financial information in the future. Although many of these systems will continue to capture data in traditional batch mode or at POS sites, we expect newer systems to collect more of it on mobile devices—for example, cell phones, PDAs, and digital cameras. Because more employees and working at home these days, "digital commuting" may be another trend.

**1-4**. The objective of a company's financial statements is to communicate relevant financial information to such external parties as stockholders, investors, and government agencies. Issuing financial statements in XBRL formats contributes to this objective by making such financial data more searchable, comparable, informative, and therefore useful. Also, because XBRL enables companies to use standard tags to identify specific accounting values, the language itself imposes a greater degree of standardization in the informational content of the reports. Finally, XBRL helps government agencies gather financial data that are more consistent, easier to understand, self-checking, and more quickly communicated. Chapter 2 contains more about XBRL, including the idea that the language also enables its users to verify accounting relationships as assets = liabilities + stockholder equity.

**1-5.** The questions asked here about suspicious activity reporting (SAR) require opinions from students. Regarding the first question, which asks if SAR activity should be a legal matter, there is little room for disagreement because so much of SAR is mandated by federal legislation such as the Annunzio-Wylie Anti-Money Laundering Act of 1992, the Bank Secrecy Act of 1996, and the Patriot Act of 2001. Although there are statistics on the number of SAR filings, less is known about how much of what appears to be suspicious are in fact violations of federal statutes.

**1-6.** The example given in the question demonstrates one way in which computerization has refined cost estimation and thus has impacted managerial accounting. However, IT has impacted almost every area of managerial accounting (and decision making). Consider, for example, the emergence of such concepts as just-in-time systems, computer integrated manufacturing systems, manufacturing resource planning systems, target costing, and activity based costing – all of these require IT to support managerial decision making. Forecasting and budgeting are other areas of managerial accounting impacted by advances in technology, as are the many applications of spreadsheet software, decision support systems, and expert systems.

Universities are also impacted by the many advances in IT. You might have students type "university use of scorecards" in their favorite browser to discover the many uses this tool offers to administrators in an academic environment. The search results show a variety of uses at such universities as The Ohio State University, CSU-Stanislaus, Clemson University, Colorado State University, San Jose State University, and others. For example, the University of Denver adapted a version of the Balanced Scorecard to evaluate their Student Life Assessment Plan (SLAP), which focuses on Learning Outcomes. San Jose State University uses a Scorecard to evaluate and continuously improve their online programs.

**1-7.** The AICPA website lists hundreds of potential assurance services for CPAs to offer. These include *Trust Services and Information Integrity, Guidance on Audit Data Analytics, XBRL Assurance Services,* and *Systems and Organization Controls for Cybersecurity,*

*Outsourced Services and Vendor Supply Chains*. Several of the assurance services are in the information technology management/security category. Classroom discussion might address the particular skills that CPAs would need for each of the proposed assurance service areas. Skepticism and integrity, for example, are two characteristics typically associated with public accountants.

It is interesting to learn which of the existing or proposed assurance services recommended by the AICPA will actually be offered by a given public accounting organization. Many of the larger firms already offer at least some of these services, and the largest accounting firms today derive a large portion of their revenues from professional services other than auditing and tax consulting. But the industry shake-up in 2002 may also prompt some accounting firms to scale back services and focus more on their auditing business.

**1-8.** This question asks students to interview auditors from professional service firms and asks them whether or not the firms offer any assurance services. Hopefully, several firms do offer such services and instructors can use this as point of departure for additional discussion about such work.

**1-9.** Almost every traditional accounting job today requires at least some information systems skills. In addition, there are many job opportunities that require combined skills in both accounting and information systems. *Consulting* is one key area. Consultants with these skill sets can work at helping companies choose and install accounting software. They can also help companies with reviews of their business processes. Evaluating information systems security is another area of consulting where accounting and information systems skills are valuable. Tax planning, preparation, and consulting are yet other areas.

Prior research suggests that it is easier to train an accountant in information systems than vice versa. Whether this is true or not, it is certainly clear that accounting students with information systems skills are valuable employees. Individuals who are technically skilled at computers but lack knowledge about accounting concepts are handicapped when trying to help a company to develop and enhance its information systems. Their lack of accounting skills may lead their employer to install information systems that fail to meet their needs.

**1-10.** Employers of both accounting and IS personnel often rank "analytical reasoning" and "writing" skills on the same priority as technical skills, and some rank them even higher. Said one recruiter at the school of one author: "I can train new employees to use our computer systems and perform the majority of the technical tasks we will require of them. What I cannot train them to do is to think analytically or logically. And what I refuse to do is to teach them to speak and write clearly and effectively—skills they should have learned in high school." Another recruiter said it slightly differently: "Give me a technically-competent accounting or IS student who can perform AIS tasks well, and I will pay them X dollars. Give me a student who can explain to my clients how our services can solve their business problems and I will pay them 2X dollars."

There are several other attributes beyond "analytical thinking" and "writing" skills that many employers also value highly. One of them is "teamwork"—i.e., the ease and willingness of an

employee to work with others instead of working alone. Another is "dedication"—i.e., the willingness and desire to get a given job done even if this means working more than 40 hours a week. A third is meticulousness—the attention to detail and the desire to get all the details correct. Finally, there is "selflessness"—the willingness to sacrifice personal goals, ego, and time in order to finish important organizational and professional projects.

**1-11.** This is a growing field of career opportunities for accounting majors that should not be underestimated! An article in the Wall Street Journal (January 12, 2014; D4), "Skill Sets You Might Want to Sharpen This Year", included the following: Computer, Communication, Foreign Language, Data, and Networking. The data section suggests that understanding data has become an increasingly important part of success, that everyone should understand how "big data" or data analysis applies to your career field.

A July 2012 White Paper by IT@Intel (Mining Big Data in the Enterprise for Better Business Intelligence, by Fania and Miller), notes that one of the biggest challenges in big data is addressing the lack of skilled experts and that the US could face a shortage of 140K to 190K of people with deep analytical skills, and perhaps 1.5 million managers and analysts who do not have the knowledge to use big data to make effective decisions. Accounting majors who take IT, statistics, and business analytics courses should be able to take advantage of these shortages by applying their skills and abilities in this area.

Predictive Analytics jobs are available literally anywhere in the US from NYC to Columbus, OH to Seattle, WA – and many international opportunities. The organizations include Walmart, Bank of America, healthcare firms, universities, insurance companies and the Big-4 public accounting firms. For more information: http://predictiveanalyticsjobs.org.

Another interesting web site https://www.icrunchdata.com/jobs/. This site identifies the many different types of jobs that are available, such as client service and sales analyst, quantitative analyst, risk analyst, etc.

Degrees/courses to prepare for these types of jobs are usually called an MS in Analytics or Business Analytics. (http://analytics.ncsu.edu/?page_id=4184). At this site, you can click on any university program to view the structure and content of the degree program. As you can see, this is a lucrative new field for accounting majors to consider. The duration of the programs is as few as 9 months, but most are 12 months or more. The curriculum is a careful mix of applied mathematics, statistics, computer science, and business disciplines.

For salary information, this site is very helpful: http://analytics.ncsu.edu/?page_id=248
Depending on the decision to be made, the employee who can analyze and make business decisions based on big data is in a position to help the firm realize a competitive advantage. This is a skill that is a critical shortage and sure to impress even the most discriminating supervisor.

## Problems

**1-12.**

a. ABC activity based costing
c. AICPA American Institute of Certified Public Accountants
d. AIS accounting information systems
e. CFO chief financial officer
f. CISA certified information systems auditor
g. CPA certified public accountant
h. CPM corporate performance measurement
i. ERP enterprise resource planning
j. FASB Financial Accounting Standards Board
k. HIPAA Health Insurance Portability and Accountability Act
l. ISACA Information Systems Audit and Control Association
m. IT information technology
n. KPI key performance indicator
o. SAR suspicious activity reporting
p. SEC Securities and Exchange Commission
q. SOX Sarbanes-Oxley
r. VAR value-added reseller
s. XBRL extensible business reporting language

**1-13.** The number of articles in professional accounting journals that relate to information technology has grown significantly during the past several years. Almost every issue of these journals has a large number of articles on such topics as accounting software, electronic commerce, information systems security, SOX software, and new computer tools for accountants. Several now have separate "Technology" columns or sections devoted to IS topics or developments. Students completing this exercise are likely to conclude that "information technology" now influences almost every aspect of accounting.

**1-14.** This problem focuses on the human side of organizations—especially ways that employees might devise to "beat the system." This problem is therefore especially useful in alerting students to the importance of designing and using systems that employees perceive as "fair," and classroom discussions should reveal that employees can sabotage even the most cleverly-designed accounting systems.

a. Organizations often use accounting measures such as return on investment (ROA) for performance evaluation. Unfortunately, managers can manipulate these measures, at least in the short run, by either artificially increasing profits (the numerator) or decreasing assets (the denominator). Some ways to accomplish this are to (1) defer expenses, (2) maximize sales, (3) postpone maintenance on assets, (4) postpone investments in assets, or (5) using historical cost-based assets, adjusted by depreciation instead of market costs (which can result in an infinite return on investment once all the organization's assets have been fully depreciated). Where net profit is used in the calculation, Shervonne's comment about including allocated overhead in deriving profit is another argument against using return on investment.

   There are many different performance measures the company might use—some quantitative and some qualitative. Other accounting measures include (1) segment

margins, (2) units of sales, (3) increases in the number of customers, (4) increases in new customers, (5) measures of customer satisfaction, (6) decreases in sales returns, (7) employee complaints, or (8) employee turnover.

b. Accounting numbers can frequently lead to dysfunctional behavior if their limitations are not understood. For example, if the incentives are large enough or the penalties for underperformance are harsh enough, managers might be tempted to record "potential sales" as "actual sales" in a given time period, accelerate the depreciation of assets using alternate depreciation schedules, "forget" to subtract costs in computing returns, or sabotage the "returns" of other managers in order to improve their own performance values. Dysfunctional behavior may also surface if one number is used in isolation. For instance, return on assets discriminates against entities with larger asset bases. It also has the shortcomings mentioned above. However, ROA adjusted for overhead allocations and current asset values might be a good measure when used in conjunction with other measures.

c. This part of the problem requires Internet research. However, "residual income" might be a better measure to use in this company -- a managerial accounting measurement used to assess and compare the relative success of business units. The basic formula for calculating residual income is to multiply operating assets by the cost of capital, and then to subtract this value from operating income. This measure counteracts some of the problems associated with return on investment, although it has shortcomings of its own. Profitability, as mentioned, is problematic where allocations are used. Allocations are really never quite "fair." For instance, rent in a department store might be allocated to departments based on square footage. Certainly, this would lead to complaints by the department located in back on the sixth floor if they pay more than the department just inside the front door!

**1-15.** This problem requires students to find out "what's new" in the field of AIS now, and to write a report on their findings. A good starting point for this is to read the "Technology" sections of popular accounting journals, or reference the websites of some of the professional accounting associations such as the AICPA or ISACA.

**1-16.** Instructors might want to mention that this problem asks students to consider the accounting information needs of a subset of not-for-profit organizations, and to note that the accounting data required by them often does not differ much from for-profit organizations.

a. Examples of the financial information gathered and maintained by such groups include data on dues payments, revenues from such club activities as bake sales, rummage sales and car washes, newsletter expenses, advertising expenses, office equipment expenses, professional service expenses, and disbursements for items like travel reimbursements.

b. Students may realize that these AISs may be manual accounting information systems. The instructor may reiterate that a manual system gathers the same data that would be gathered by a computerized system, stores it for future reference and further processing,

and periodically outputs it in useful formats for club members and perhaps government agencies.

c. Most recreational clubs have only a single "treasurer" to look after the financial matters of the organization. This is a good idea to the extent that assigning only one person for the task of treasurer limits the burden of the job to only one individual and ensures accountability and responsibility to a single person for the "money portion" of club activities. But it is also a recipe for fraud, inasmuch as there is no separation of duties. For example, the same person who spends the money writes the checks for it, most club members do not concern themselves with the financial details of the club, and deception can be very simple. Although it is easy to dismiss the financial activities of most such organizations as immaterial because the amounts of monies involved are small, this is often not true for condo associations, for example.

d. Several advantages can accrue to computerizing club finances. Among them are (1) greater accuracy in data recording and data processing, (2) the ability to output financial information in a variety of legible and professional-looking formats, (3) added flexibility in the ways the treasurer can process and output financial information, (4) greater ease in accessing needed data or generating ad-hoc reports, and (5) the potential for more-timely reports. Where club treasurers can use an existing personal computer for club tasks and/or the services of the treasurer are free, such computerization can be cost effective. If a club has to pay for either the computer or the services of a treasurer, the cost-effectiveness of computerization becomes less clear.

**1-17.** In this case, students are asked to look at three different sources of information to help them invest $10,000 in the common stock of a publicly-held company. In general, they will find the following:

a. Financial Reports from the company's own website: Most students will indicate that the information contained in the reports on the website is "complete," but that it is not sufficient for making an informed investment decision. Three possible shortcomings are: (1) the information may be self-promoting and therefore positive and upbeat, even if the company has been losing money year after year; (2) the information may be mostly limited to the company itself, and may not discuss the industry in which it competes or possible negative factors that may affect it; (3) the information may not include substantiated predictions about the value of the company's stock in the future.

b. Information found at brokerage or investment firms: For investment purposes, the information provided by firms such as e-trade tends to be more useful than a company's own financial statements. Among the reasons are: (1) the information tends to focus on investment decisions rather than provide general information, (2) the user can access and even customize historical charts that show stock prices, income, revenues and so forth, and (3) these websites often include links to additional news stories and analytical reports about the company, the industry in which it competes, and the firm's future prospects, all written by independent and presumably objective reviewers.

c. Information from investment services: This information typically includes dispassionate reviews of a company's operations, its successes and failures, important management changes, the industry in which it operates, and prospects for the future. This information typically also includes an overall rating for a particular company such as "hold," "accumulate," or "sell." Whether or not such ratings are "sufficient" to convince a student to buy stocks is a personal matter, but certainly the information might be considered more useful than the simple facts or historical values provided in items a and b above.

d. A large number of dry facts about a company are rarely as informative as an objective analysis of it and a recommendation to "buy" or "sell" its stock. After performing this exercise, students should have a much better feel for the difference between "data" and "information."

**1-18.** This problem requires students to do some research on the Internet about suspicious activity reporting. Specifically, the question asks students to indicate what types of activities the various banks, casinos, and so forth, should watch for. To illustrate, dealers in gemstones should be sensitive to the possibility of money laundering—for example, when clients buy rare gemstones with cash. There are usually dollar thresholds for such activities—e.g., $50,000 in yearly transactions in the case of gemstones. Instructors might want to remind students that this is an important function of AISs—providing financial information other than annual reports to government agencies.

**1-19.** This story is a remarkable case of an individual trying to "whistleblow" on a fraud, over the course of many years, and no one would listen! Mr. Markopolos notified the Boston SEC in 2000 about his suspicions regarding Bernie Madoff. A full article may be accessed at this web site: http://www.americanfreepress.net/html/man_who_exposed_madoff_190.html

a. What happened when Mr. Markopolos notified the SEC in 2000? In May of 2000, he submitted an 8-page report to the Boston Regional Office of the SEC, listing red flags and mathematical proof of a major fraud, but got no reply.

b. How many more times did Mr. Markopolos notify the SEC of his concerns? He re-submitted his evidence to the Boston and other SEC offices in 2001, 2005, 2007 and 2008, to no avail. By this time, Markopolos suspected that Madoff had been operating with protection from the inside.

c. What was the result of Mr. Markopolos' efforts to notify the authorities about his suspicions regarding Madoff? Surprisingly, no one paid any attention to Markopolos. If not for the 2008 stock market crash, the crime may still be in progress. The federal authorities were alerted by Madoff's sons, and Madoff was arrested on December 11, 2008. On March 12, 2009, Madoff pled guilty to 11 federal crimes and admitted that he had been operating a huge Ponzi scheme—as it turned out, the largest in history.

## Case Analyses

## 1-20. Berry & Associates, LLP

1. It is usually easier to offer extra services to existing clients than to obtain new clients. One of the issues Berry & Associates (B&A), LLP will have to consider is the appearance of independence if the organization offers services that might impact its primary business. For instance, if B&A decides to get into the business of internal auditing where clients outsource this business, the organization will probably want to make sure that it does not perform both the internal and external audit for a client. Probably the best approach would be for the organization to poll its clients to learn what they most value and then offer only two or three new services based on the results.

2. The firm's expertise is currently in retailing, wholesaling, and property management. It would be a good idea to try to learn what the issues are for these industries (and look at results from the client survey suggested above), and then choose assurance services that match these issues. Retailers, in particular, may be interested in developing their business via electronic commerce. For example, website verification is an assurance service that might make sense for this set of clients. Medium-sized businesses are not likely to employ internal auditors with information systems expertise. Offering assurance services, such as Information Technology Risk Assessment, might be a good practice for B&A. Finally, the AICPA suggests some industry-specific assurance services, such as mystery shopping (for retail clients), rental property operation reviews (for property management clients), and *CPA Trust* (for companies engaged in electronic commerce).

3. The new hires' expertise in information systems can be leveraged in several ways. First, the new hires can help train the older staff in computers and information systems. This is a different approach from the past and requires older staff (including partners) to become learners. However, there is no doubt that the students coming out of schools today have much to share with those who graduated even five years ago.

   The new hires can also work with audit teams to develop new approaches to auditing computerized AISs. For example, they may be able to suggest ways to use computer assisted audit techniques (CAATs – see Chapter 11). The new hires are likely to be able to suggest better ways of conducting audits, based on their computer expertise. For example, they may know an optimal way to download client data for auditor analysis or be more familiar with mobile computing devices that can help the company service clients.

   Probably the most important point here is for B&A to be willing to recognize these skills and utilize the ideas offered by the new hires. To recognize these skills, the company can hold meetings to generate ideas, and can also have an old-fashioned suggestion box for those hires who wish to contribute ideas anonymously. The company can even sponsor a yearly contest with rewards for the "best new ideas."

## 1-21. Organizational Reports to Stakeholders

**1.** This question asks students to do some Internet research to learn more about how the SEC

involves itself in the annual financial reports that organizations make available to their stakeholders. The following website is helpful: http://www.sec.gov/about/whatwedo.shtml

One of the ways that the SEC accomplishes their mission is by enforcing laws, such as:

- Securities Act of 1933
- Securities Exchange Act of 1934
- Trust Indenture Act of 1939
- Investment Company Act of 1940
- Investment Advisers Act of 1940
- Sarbanes-Oxley Act of 2002
- Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010

Another way the SEC accomplishes their mission is by investigating certain actions, such as:

- Misrepresentation or omission of important information about securities
- Manipulating the market prices of securities
- Stealing customers' funds or securities
- Violating broker-dealers' responsibility to treat customers fairly
- Insider trading (violating a trust relationship by trading while in possession of material, non-public information about a security)
- Selling unregistered securities

**2.** a. An annual financial report is a one-way communication device. It emphasizes clarity and conciseness, but there is often no immediate feedback from readers about the messages they receive from it. Thus, preparers must attempt to identify the users/audience of the report, and estimate their informational needs. Only then can preparers determine the content and language of the report—i.e., the words and phrases that are most familiar and appropriate to users or readers.

The preparer must also consider the length, content, and organization of the material in the annual report. For example, a report that is too long or contains too much detail can detract from the overall goal of communicating important financial information (as opposed to data) to readers. Conversely, a report that is too succinct might trigger reader suspicions that the company is hiding important information.

Finally, a logical ordering and an attractive format can also help transmit ideas. At one point, some businesses (e.g., Disney Corporation) traditionally included personal messages from the company's CEO in order to personalize the report and perhaps make it more appealing. Similarly, companies that put the basic financial information required of them in small print at the end of a yearly report might convey the message that they don't want readers to see it.

b. The different users of annual reports have differing information needs, backgrounds, and abilities. For some users, the annual report may serve as an introduction to the company and/or the only source of information about it. But other users read annual reports from cover to cover, searching for clues about the firm's future prospects, hidden problems or strengths, and other information useful for evaluating the company's investment

potential. Because the same annual report must communicate with all its users, the problems the corporation faces include the following:

- In attempting to reach several audiences, companies try to include information for each audience. As a consequence, the annual report may grow in size and complexity to the point where it contains more information than many users want or are able to digest—a problem discussed in the chapter as *information overload*. In some cases, technical concepts may be reduced to simpler terms, losing precision and conciseness and thereby leading to generalizations that readers may perceive as being of little value.

- The report developers must exercise care in presenting the information contained in the report. Key terms or phrases that may be familiar to one user group—for example, technical terms commonly used in the company's industry—may not be understood by general investors. Similarly, graphic displays that may be useful to some may be meaningless to others.

**3.** Other than the financial statements and accompanying footnotes, an annual report often contains:

- A discussion and analysis of operating results
- Information about organizational objectives, strategies, and long term goals
- An indication of management's outlook for the future (almost always rosy!)
- A list of the Board of Directors and the officers and top management of the organization
- Segment data and performance information for the firm's major divisions
- Information on new initiatives and research
- Recent stock price history and stock information
- In the case of retailers, perhaps a coupon entitling the holder to a discount

4. Stating well-defined corporate strategies in a company's annual report accomplishes the following advantages:

- Communicates the company's plan for the future and resolves any disparate issues
- Provides a vehicle for communicating the company's strengths
- Builds investor confidence and portrays a positive image
- Reassures nervous investors that the company's managers are working hard for owner interests
- It alerts investors to potential adverse, long-term forces in the company's industry

Some of the disadvantages of including corporate strategies in an annual report are:

- It commits management to fulfilling the stated objectives and strategies, a commitment that may cause inflexibility
- It communicates to unintended parties who could put the company at risk (i.e., competitors)
- The strategies themselves may make the company appear out-dated by the time they are in print.

**5.** Annual reports fulfill users' information needs as discussed below.

a. Shareholders. Annual reports meet the statutory requirement that publicly-held corporations report annually to stockholders and potential stockholders about the financial operations of the company and the stewardship of management. The annual report gives shareholders financial and operating information such as income from operations, earnings per share, the Balance Sheet, Cash Flow Statement, and related footnote disclosures, all of which potential shareholders may need in order to evaluate the risks of and potential returns from investing in the company. As noted above, however, the volume of data presented in annual reports can result in information overload that reduces the value of the reports. Confusion can also result from reducing technical concepts to common concepts or by the presentation of duplicate messages by different forms of media.

b. Creditors. The annual report of public companies provides financial information that allows creditors to project a company's financial solvency and therefore its ability to repay its loans. This can be a good thing if the company is doing well.

c. Employees. The annual report gives employees such information as a description and status of the company's pension plan and the employee stock incentive plan. This gives employees a base from which to compare their benefits program to those of other companies. Annual reports also provide employees with a year-end review of the results to which they have contributed during the year. In this sense, the annual report provides reinforcement and rewards. The annual report also informs or reminds employees of the organization's values and objectives, and sensitizes them to the aspects of the organization with which they are not familiar. On the other hand, many employees may already know how their organization is performing so the annual report may not provide any substantive additional information to them.

d. Customers. The annual report provides trend information and perhaps information on management performance. Customers can use this information to assess the popularity of selected products, the likelihood that the firm can provide the goods or services they need, or even the company's longevity.

e. Financial analysts. The set of audited comparative financial statements provides the basis for the research done by financial analysts. Notes, which are an integral part of the annual report, describe or explain various items in the statements, provide additional details, or summarize significant accounting policies. Financial analysts are the most sophisticated users of the information in annual reports. For example, they are able to ignore subjective interpretations included in the reports. However, these individuals may find that some of the data contained in the report may be too condensed and therefore need more detailed information than what the annual report provides.

**6.** Management may decide to omit competitive information entirely from the annual report, or to disguise it because competitors have access to annual reports. The objective of reporting

should be to reveal as much as possible without giving away proprietary information or a competitive edge.

## 1-22. North Gate Manufacturing

The issue of performance evaluation is one of the most controversial and interesting topics in accounting today. Computerized AISs offer the capability to produce so much more information than was available in the past, allowing for new and better performance evaluation systems. Since performance evaluation affects individuals directly (i.e., in terms of rewards), this topic is one that can create many problems for organizations.

1. It is probably useful for budget specialists to work with management to develop a performance evaluation system. However, it is not a good idea for special staff to be charged with the entire task of performance evaluation reporting. Once a system is in place, the managers should be able to produce these reports. Scott's staff could work with managers at the various plants to derive an evaluation system. Auditors (or perhaps Scott's staff) should periodically review each manager's report to ensure that the reporting is fair and accurate.

   Students may differ on the matter of who best explains the variances. The managers are correct in asserting that they better understand their suppliers, contractors, and customers, and that Scott's staff is not likely to understand these matters well enough to explain the variances. On the other hand, students can argue that managers are human and have a natural conflict of interest in such reporting. In particular, although they understand their business, it is easy to blame others—including each other—for problems that are well within their own control. Allowing managers to explain variances begs the question: "are self-reported explanations of variances likely to be unbiased assessments of plant activities?"

2. Decentralizing performance evaluation is probably a good idea for this organization. Under the old system, revenues and expenses were consolidated for all plants to produce one income statement. Undoubtedly this required allocation of indirect costs. Such allocation can never please everyone since all allocations are essentially arbitrary. Striving for some consistency in performance evaluation is a good idea so that the performance of each plant can be compared against the others. Use of segment margins which show the difference between direct revenues and expenses would be a good measure. Return on investment which uses current values and the segment margins might be another. Nonfinancial evaluation measures, such as employee turnover, amount of production, customer turnover (customer satisfaction), sales returns, employee productivity, and so on, can also be part of the evaluation system.

3. The performance evaluation report Mr. Stewart receives should be short and concise. Ideally, one page per month per plant should be sufficient. The report can also compare all plants on various financial and nonfinancial measures, such as the ones mentioned above. Any significant variances can include managers' explanations in footnotes. The point to remember is that this is an "action report." Mr. Stewart will look at it most months, note variances and explanations, and take no action. However, on occasion, the report will call for investigation.

*Note to Instructor:* You might want to have your students design a sample report using spreadsheet software.