

Chapter 1

Significance of Accounting Information Systems and the Accountant's Role

INTRODUCTORY SCENARIO: SUGGESTED SOLUTIONS TO QUESTIONS

1. Employee overtime hours, customer information (e.g., age groups), inventory levels, reorder points, EOQ calculation, volume/quantity discount analysis, square footage in use v. storage, customer flow data, spoilage
2. How much is client willing to pay? System that is easy for servers to use with proper controls. Bob's hourly rate would be a concern for client. Will Bob be around "after the sale" (i.e., tech support)? What types of pre-packaged systems are available?
3. Information to help with software division (e.g., total sales dollars, complexity of accounting system). How many computers needed? Any expansion planned? What types of employees do they have (e.g., waiters would want quick touch screens)?
4. The owner of the restaurant wants a new accounting system because he needs up-to-date information on how the business is doing. Waiting until the end of the year, or even the quarter, does not give Marshall the information he needs to make those day-to-day decisions that will ensure the success of his restaurant.

CHAPTER VIGNETTES: SUGGESTED RESPONSES TO QUESTIONS

Vignette 1.1

1. Closer relationships with remaining suppliers, the ability to carry less inventory (reducing carrying costs and risks of theft or loss of inventory), sharing of planning information with suppliers, easier to monitor vendor performance. Might lose volume discounts if trying to minimize inventory on hand by having smaller shipments from vendors shipped more often.
2. Reduction in paperwork, reduction in input errors, ordering and cash receipt processes more efficient, increases in efficiency in meeting changes in demand. One disadvantage would relate to problems with settling disputed orders or payments with loss of "paper trail" that includes authorized signatures.

Vignette 1.2

1. Managers would probably find information in units to be most useful for planning decisions because this information would represent things over which he/she has control. While the manager might not have control over salaries, he/she does have control over the amount of overtime and the approval of vacation of the employees.
2. Managers would probably want information related to production numbers (to determine seasonality; during slow times, more employees could be on vacation), the number of vacation hours per employee, the number of overtime hours per employee, backorder information, and information to help the manager match staffing levels with production.

Vignette 1.3

1. The privacy of information is a major consideration, as the customer might not want their spending pattern information shared with other parties. Loss of confidential information can be disastrous to a company's reputation and lead to significant financial losses (lost sales, fines, etc.) Information about customers must

- be protected from information leakage to other third parties who gain authorized (or unauthorized) access to information. At the very least, confidential information about the customers should be encrypted and have limited access.
2. Inventory management (e.g., turnover, obsolescence, supply/demand, reorder levels), potential markets or product lines for expansion, frequent buyer programs.

Vignette 1.4

1. The situation could have been avoided if employees had been part of the decision-making and testing early in the project. Employee buy-in is essential to the success of any new system implementation. It is key that the system provide managers with information that they need for decision-making. It is also important to have a maintenance contract in place, with better reporting to management and regular follow-up. It appears that this decision was not made by executive management, so its success was questionable since the “tone at the top” with regard to the project was “ignorance”. Since executive management did not monitor the project, they could not respond to Kluger’s complaints, nor could they provide “strong encouragement” for continuation of the project originally started by Lehmann. In fact, it appears that executive management was not involved in the decision to take on the new system. Kluger was not given the opportunity to learn the new system, nor was there motivation to learn the new system. The company also had inadequate backup so that the project could continue in the absence of a key employee.
2. Here are some suggested “next steps”
 - Improve the governance process and the “tone at the top” to get executive management involvement and oversight of system projects—this includes aligning any system projects with the strategy of the company
 - Determine that any system chosen by management will provide quality information useful for decision-making at all levels
 - Reinstate the maintenance contract and set up a training contract if it is determined more cost-effective and in line with the company business plan to use the new system
 - Provide training and employee involvement in developing the system
 - Provide better oversight of the controller function

Vignette 1.5

1. The redesign process can be improved using the following suggestions:
 - Set up end-user groups to get input regarding output needs, data collection needs, screen, and form layouts
 - Develop a schedule of tests to be conducted with representative end users for pilot testing
 - Allow end user input for changes and improvements to system
 - Set up training for all affected employees
 - Get management and programmer buy-in for essential controls and audit trails at the front end of development
 - Emphasize the importance of controls, protection of information assets, and protection of confidential/private information

SOLUTIONS TO DISCUSSION QUESTIONS AND PROBLEMS

1. The project that Finkelstein and Associates is considering is a capital investment that requires information on the estimated initial investment and the estimated future return. The future return would be measured by net incremental cash flows to the mall (incremental cash inflows less incremental cash outflows).

Estimated initial investment would include:

- Architects fees
- Renovation of existing facilities
- Construction of new facilities and food court

- Cost of disruption of trade during project

Estimated net incremental cash flows would include:

Cash inflows:

- Increased store rents from existing facilities
- Rents from new facilities and food court

Less cash outflows:

- Increased janitorial costs
- Increased security costs

Estimates of the future cash inflows and outflows could be based on the mall's historical accounting data. Estimates of the renovation and construction costs would be based primarily on the architect's judgment and experience. It would be difficult to make precise estimates of the cost of trade disruption, although some data may be available from industry sources. Additional useful information would include demographic data for the local community and estimates of local economic activity and consumer buying power.

2. a. and b.

Purchasing data might reveal the degree of competition among vendors and vendors' pricing policies. An organization might decide to integrate vertically by buying an equity position in key vendors or by producing some of the needed goods and services itself.

Perpetual inventory records indicate inventory carrying costs and might reveal buying patterns for different classes of goods. An organization might decide to drop some product lines that are expensive to carry in inventory and for which demand is decreasing, erratic, or highly seasonal.

Manufacturing cost data might shed light on an organization's ability to compete in its market. An organization with unusually low manufacturing costs, because of a high degree of automation or for other reasons, would enjoy a distinct competitive advantage.

Customer credit and accounts receivable data contain valuable information on customers' financial condition. An organization would wish to target high-income customers or customers with good credit histories in its promotional campaigns. Some organizations might also be tempted to sell credit data to other firms to aid their promotional efforts. However, except for credit companies themselves, such sale of credit data is restricted by law and may also raise serious ethical concerns.

Personnel and payroll records contain valuable information about employees' financial condition and possibly about their tastes and habits. Such information might be used to target an organization's own employees in promotional campaigns. The release of personnel and payroll data to other organizations, except to credit companies, is prohibited by privacy laws.

3. External auditors and accountants need a basic understanding of accounting information systems, their components, their modes of operation, and their supporting technologies. Auditors are likely to be involved primarily because of their expertise in internal controls and their knowledge of what enhances or detracts from a system's auditability. Accountants are likely to be involved primarily because of their expertise in evaluating and designing a system's outputs in relation to the needs of the organization and its users.

4. Under Section 201 of the Sarbanes-Oxley Act of 2002, auditors are prohibited from providing any non-audit service, including information systems design and implementation, to its audit clients. (This Act does not directly apply to non-public companies.) Accountants can still provide consulting services, and this will continue to be a large practice-just not to their own audit clients.
5. If accounting systems are to do their job of providing high quality accounting information effectively and efficiently, users must participate in systems development. Some aspects of development require specialized expertise, for example, in computer science or auditing, that users may not have. However, many other aspects relate to the types of accounting information that are needed and the way in which that information should be presented to users. In these areas, users are the experts. A system developed entirely by technical specialists may be technologically superior but may fail to meet the users' needs.

User participation in systems development does not necessarily mean membership on systems projects. The required participation can be provided in other ways, such as regular meetings with project members. But experience has shown that the intimacy of contact provided by project membership is the best way to ensure that the users' point of view is represented in development decisions.

6. The CPA license is a highly respected certification providing evidence of accounting competence and authorizing the holder to engage in types of public accounting practice regulated by state law. However, other certifications are more directly relevant to other types of accounting practice, such as management accounting or internal auditing. Although the CMA and CIA designations do not carry the legal status of the CPA license and may not yet have the same public recognition, they are growing rapidly in acceptance in their respective fields. A student who plans to practice in one of these fields is likely to be served better by a specialized certification than by obtaining a CPA license
7. The purpose of this activity is to get students to start thinking about what a basic accounting information system is and to initiate a lively discussion. The instructor should allow considerable flexibility in answers to this question. When the students are finished, tell them they just created an "accounting system."

Randomly select one team to present its solution to the class. At the appropriate time in the presentation, the instructor should raise questions for any team to answer.

What is a transaction?

What is a journal entry?

How can you ensure that this transaction gets recorded? Recorded only one time? Recorded in the correct time period? Recorded for the correct amount?

How can you be sure an employee does not steal the ski poles?

What happens if the sales amount is recorded as, e.g., \$1,500 instead of \$1,600? How can you prevent this from happening?

How can we know if this order exceeds Snowmass' credit limit?

What information does the accounting system need to provide so you can determine:

How profitable are the ski poles are?

Should you offer another product?

Which salesperson is getting the highest volume of orders for ski poles?

Is this salesperson offering too many sales discounts?

Which salesperson is making the most profit on sales?

Which salespeople sold what ski products?

Which customers bought which ski products?

If you manufacture (as opposed to buying the finished good to resell) these ski poles will your accounting system provide the following?

How long did it take you from the time you received the customer's order for 50 ski poles until you delivered them to the customer? If it takes too long, a competitor no doubt is eager to take the order.

For every 50 ski poles you manufacture, how many are defective and have to be put back into production for rework? If you have any defects, you are engaging in "non-value added activities." Do it right the first time!

How many hours of direct labor went into making the 50 ski poles? Was that too many hours? Too few? Just right?

What was the quality of the raw materials you bought to make the ski poles?

Does your supplier of raw materials deliver on time, without defects?

Today our accounting system needs to be able to answer these questions as well as tell how profitable the organization was for a period of time or what the assets, liabilities, and ownership equity were at a given moment. Thanks to the technology available today, we can get all these answers from our accounting system.

The following questions can be asked later in the course after students have learned about the revenue, purchasing, and inventory processes.

How can we break this complex accounting system down into smaller sections so we can understand and manage better? If I say to you,

"Tran, you go evaluate the effectiveness and efficiency of the accounting system" or

"Tran, you go design and implement some internal controls in the accounting system" or

"Tran, you go audit the accounting system so you can express an opinion on the fairness of the financial statements."

Any one of these is a big task. To make the system more manageable, how could the entire system be broken down so you could assign, e.g., the first question to several different people or different teams?