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Fraud and Cash Receipts: Common Frauds and Internal Controls





FRAUD AND CASH RECEIPTS: COMMON FRAUDS AND INTERNAL CONTROLS

BY GLENN HELMS, PH.D., CPA, CIA, CISA, CFF, CITP

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Chapter 1

REVENUE CYCLE

LEARNING OBJECTIVES

After completing this chapter, you should be able to do the following:

- Recall the transaction flow in a typical revenue system.
- Differentiate some of the major revenue recognition principles used by different types of entities.
- Identify controls to mitigate identified risks.
- Identify the types of risks that should be evaluated in a brainstorming session.

INTRODUCTION

The revenue system that a company uses should have several financial objectives. These objectives include, but are not limited to, recording all revenue in the proper time period and at the proper amounts in accordance with generally accepted accounting principles (GAAP). It is important to note that there are many different types of revenue systems in place today. Some revenue systems have the option for the entity to grant credit to customers. Other systems require the customer to prepay for purchases before goods are delivered or services are rendered. Some revenue systems, such as one that may be in place at a “brick-and-mortar” business, produce a paper trail of evidence while others, such as at an electronic storefront, do not.

When to recognize and record revenue on the books in accordance with GAAP depends upon the type of business. Even then, a particular type of business might have various methods of recognizing revenue. For example, a manufacturing entity might not recognize revenue until goods are on the loading dock (Free On Board [FOB] shipping point) or, alternatively, when received from the customer (FOB destination). A manufacturing company could recognize revenue when a specially made-to-order item is

completed. Other businesses can recognize revenue using other accounting principles. For example, a construction company might use the percentage-of-completion method. Some entities, such as those involved in e-commerce, will recognize revenue when the order is placed if the time to fill the order is relatively short. Although typical, this accounting is technically incorrect but is considered reasonable so long as the amount of revenue recognized in an incorrect period (due to cut-off) is clearly insignificant.

Key characteristics of a revenue system include possessing integrity and proper internal controls to provide assurance major system financial objectives are met. Core financial objectives successfully met result in recording revenue in the proper time period, at the correct amount, and in accordance with GAAP. In order to illustrate the types of controls that should exist in revenue systems, a typical revenue system overview is presented as a basis for discussion of more highly specialized revenue systems.

FLOWCHARTS

To enhance the learning of course participants, this course utilizes flowcharts and paper-based systems to illustrate the processes and controls that are typical of many transaction processing systems. Granted, many transaction processing systems are predominantly electronic in today's environment. However, the types of controls that exist in a paper-based system should also exist in a predominantly electronic environment. For example, segregation of duties is accomplished in a manual system by assigning incompatible functions to different personnel. Segregation of duties in a predominantly electronic environment is maintained by providing logical access rights (enforced by passwords, and so on) so that incompatible functions will not exist. Also, in both manual and electronic systems, certain processes should occur before a subsequent course of action can be initiated. For example, a new customer should be evaluated for credit worthiness before a credit limit is established for that customer.

Typical Revenue System Overview

INTRODUCTION

A typical revenue system is addressed subsequently as a foundation for a discussion of other revenue systems that will be presented later in this course. This illustrated system assumes that credit will be granted to the customer and that revenue will be recognized based upon shipping terms.

SALES ORDER

A customer prepares a purchase order, which is evidence that the customer has authorized the purchase of goods or services. The purchase order is sent from the customer to the seller. The purchase information can be submitted in various ways, including a website or by postal service, fax, or electronic data interchange (EDI). The customer's purchase order is sent to the seller's sales department. The sales department prepares a sequentially numbered sales order. A sales order includes information such as the customer's shipping and billing address, goods ordered, pricing, shipping terms, and other relevant information.

If the sale is a credit sale, then it is important for the company's credit department to review the customer's credit report prior to filling the order. If the customer's credit is not reviewed, then there is a risk to the company that the goods will be shipped and the customer's account receivable will not be collected. Additionally, if the customer is a continuing customer, then the company should consider reviewing past due amounts from this customer before extending the customer additional credit.

Established customers are often provided a limited credit line. The company should consider performing a calculation to assess if the established customer's current accounts receivable balance when added to the current sales amount exceeds the customer's credit limit. If the customer's credit limit is exceeded, then a special authorization by an appropriate employee should be made before the request by the customer for additional credit (above the credit-limit amount) is approved.

The seller will also determine if the requisite number and type of inventory ordered is in stock. If not, then the customer will be issued a backorder for the items that are not on-hand and either need to be acquired (if the seller is a retail entity) or produced (if the seller is a manufacturing entity).

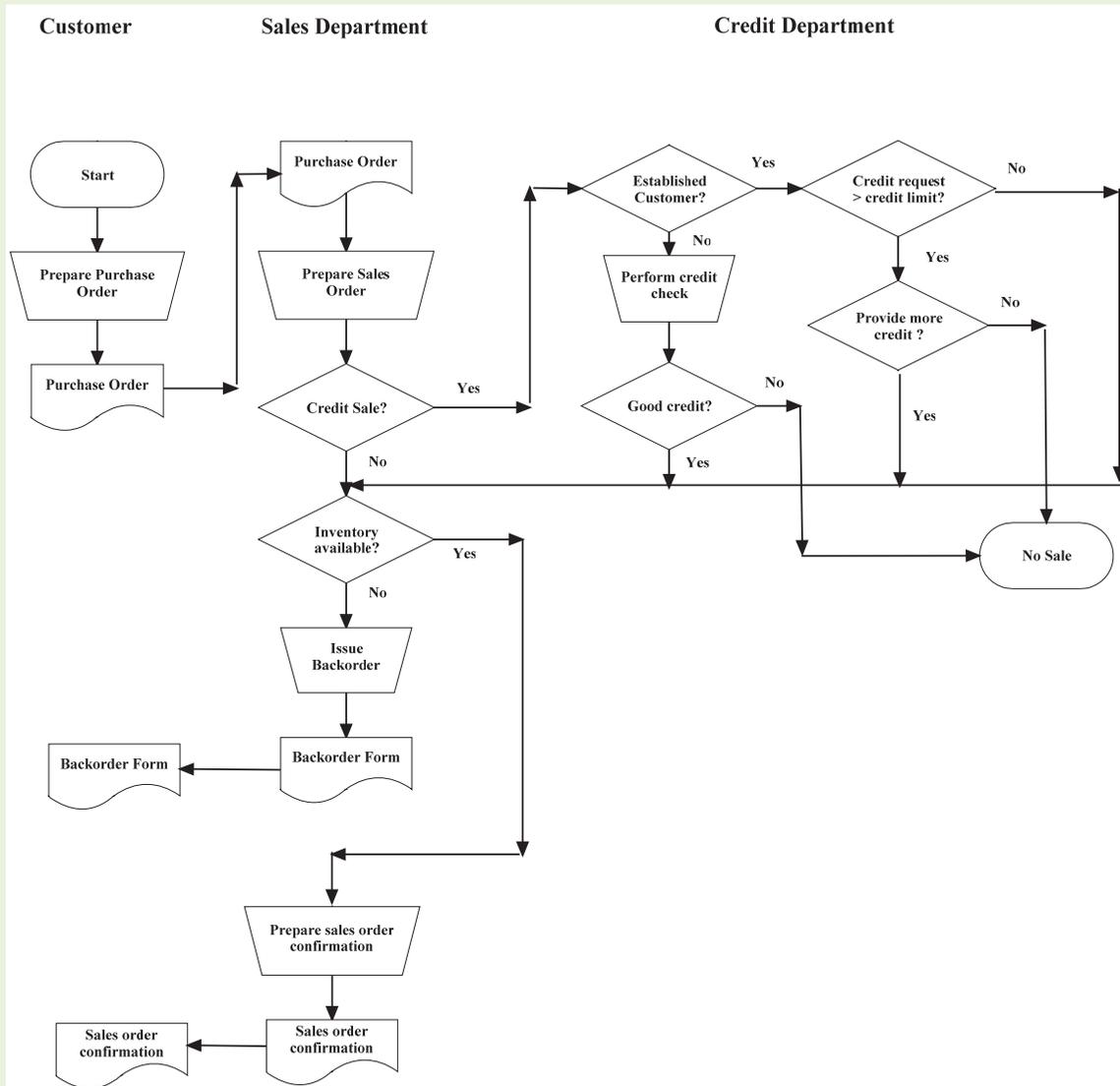
The customer will also be issued a sequentially numbered sales order confirmation form which includes, among other items, the date the customer should expect to receive the goods.

The sales department will periodically review long-outstanding sales orders and investigate why the order has not been filled in a timely manner.

A flowchart of the sales-order process is presented in exhibit 1-1.



Exhibit 1-1 Sales Order Flowchart



Note that the sales-order confirmation is used to produce a picking ticket, which is the input to the picking and shipping portion of the sales system.

PICKING TICKET AND SHIPPING DOCUMENTS

Once the sales order has been approved, a sequentially numbered picking ticket is sent to a warehouse (which contains the finished goods) either electronically or in a paper format. A picking ticket contains information such as a description of the items to be selected for shipment and location of the items. The picked items are then sent to the shipping department.

The shipping department personnel compare the picking list with the goods received from the warehouse pickers. After inspection, the shipping personnel pack the goods and include a sequentially numbered packing list with the goods that are being shipped. The packing list includes information about the goods being shipped, the customer name, the shipping address, and other relevant information. Additionally, the shipping department prepares a bill of lading,¹ which is given to a common carrier to deliver the ordered goods to the customer.

The goods can be shipped FOB shipping or FOB destination. The key indicators in determining whether the terms of shipping are FOB shipping versus FOB destination are (1) when title passes and (2) who assumes the risks and rewards of the goods as they are in transit. Once the title passes and the risk or reward then also passes (which party may use the goods or will incur a loss in the event the goods are destroyed), the sale is deemed to have taken place. The seller can recognize the sale once items 1 and 2 have passed to the buyer.

In order to meet one of the financial objectives of recognizing revenue in the proper period, the seller must make assumptions as to when the customer receives the goods (if the shipping terms are FOB destination). These assumptions should be reasonable and based upon knowledge of shipping terms and days to deliver. Failure by the seller to recognize shipping term implications for timing of revenue recognition could result in misstated financial statements.

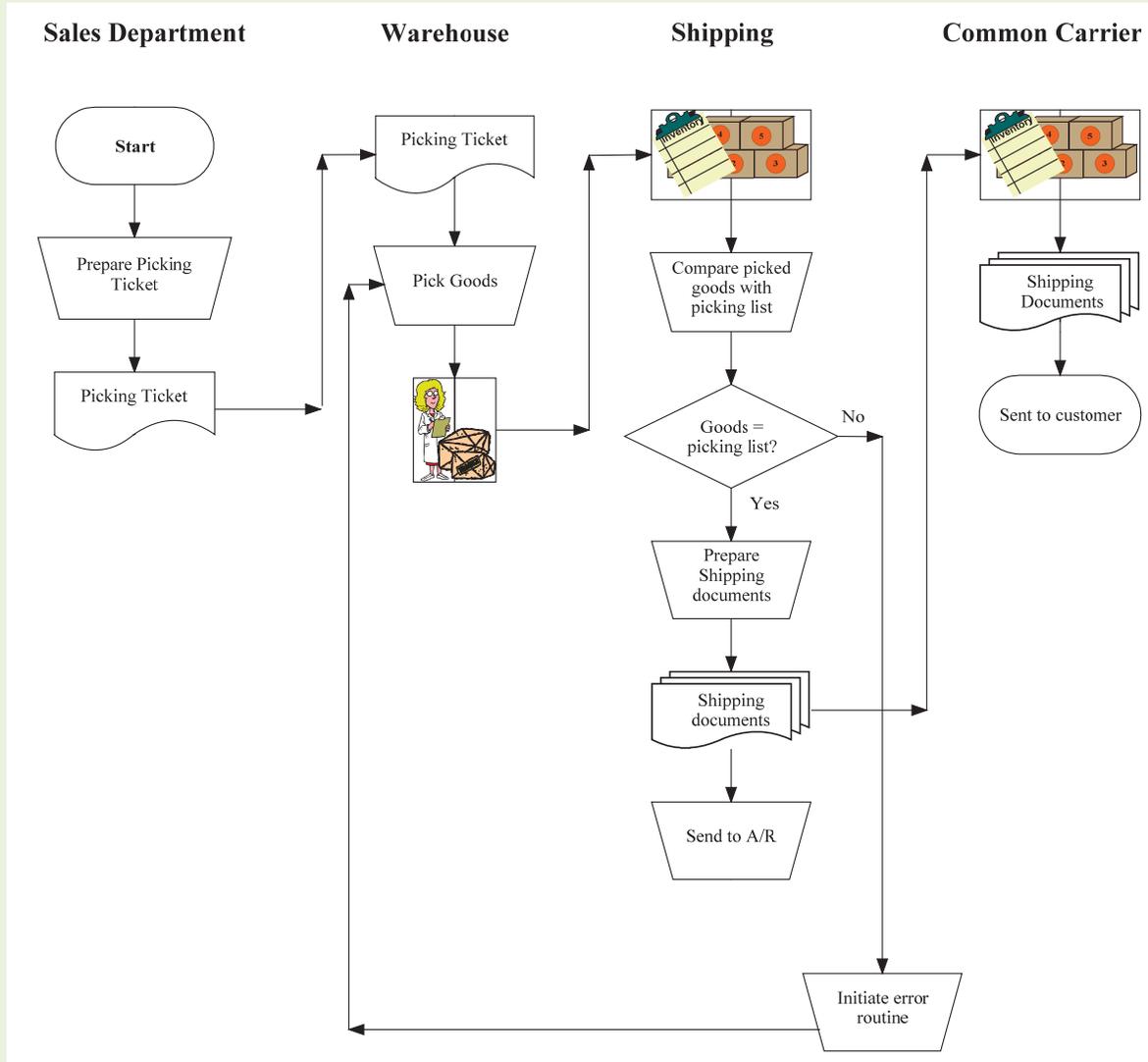
After goods are shipped, copies of the sequentially numbered shipping documents are forwarded to accounts receivable for billing purposes. The sales department is also advised that the order was shipped in order to cancel outstanding purchase orders and mark the orders as filled.

A flowchart of the picking and shipping process is presented in exhibit 1-2.

¹A bill of lading is a contract that states, among other items, who pays the common carrier and who is responsible for the goods while they are being sent from the seller to the buyer.



Exhibit 1-2 Picking and Shipping Flowchart



Note that the processing for accounts receivable is depicted in exhibit 1-3.

BILLING CYCLE

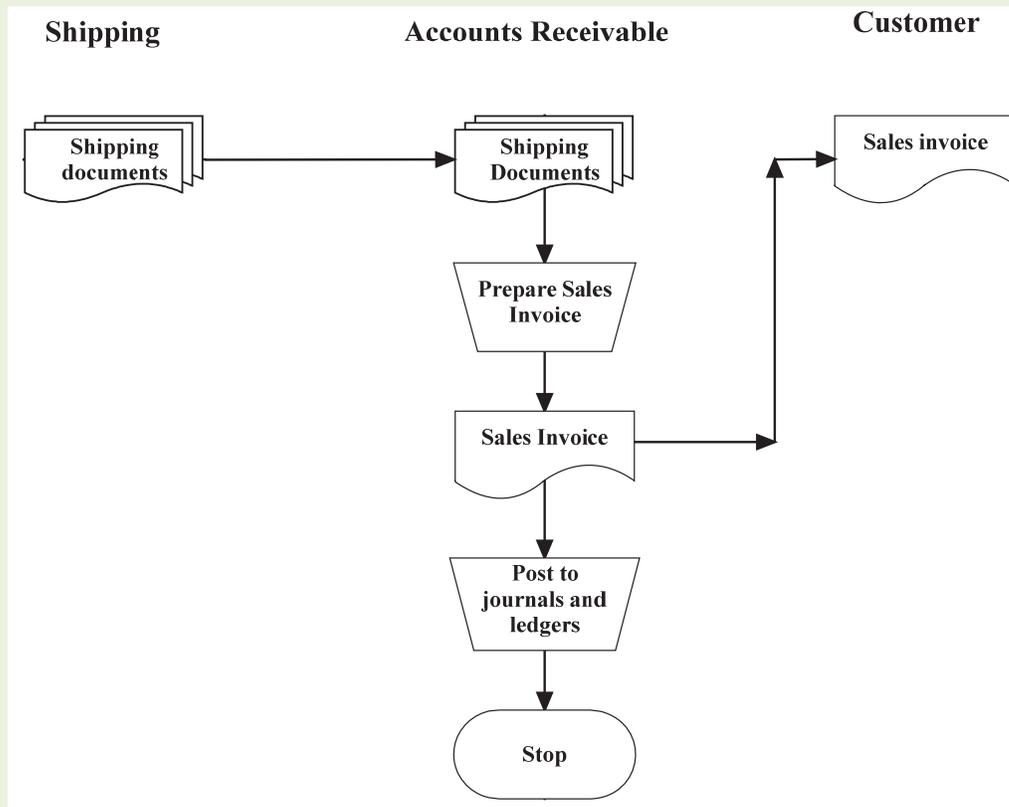
Upon receiving the shipping documents from the shipping department, accounts receivable will prepare a sequentially numbered sales invoice that will be sent to the customer. Information to prepare the invoice can be obtained from various sources, including the purchase order, shipping documents, customer master files, and sales contracts.

The bookkeeping department will post the sales transaction to the books by increasing a subsidiary account receivable (one account per customer) and make an entry in the sales journal. The bookkeeping department reviews shipping terms before posting to provide assurance that sales are recorded in the proper period.

A flowchart of the billing cycle is presented in exhibit 1-3.



Exhibit 1-3 Billing Cycle



Note that the next process is the cash receipts cycle.

OTHER SALES TRANSACTIONS

There are two other transactions in the revenue cycle: sales discounts and sales returns and allowances. Both are contra-revenue transactions (reduce revenue and accounts receivable) and therefore should have additional controls – such as supervisory approval before the transactions can be processed.

In business-to-business sales transactions, the seller will often allow the buyer to receive a discount for quick payment of the invoice. This is referred to as a sales discount. The seller will receive a cash payment that equals the total sales amount less a stated discount percentage.

For example, the seller might grant the customer a 2 percent discount if the seller pays the sales invoice within 10 days of the invoice date. If the customer does not pay the balance within 10 days, then the customer will be required to pay the full amount within 30 days of the invoice date. This is commonly referred to as 2/10, Net 30. The effective interest rate for the customer not paying within 10 days is approximately 36 percent.² This is a relatively high interest rate and indicates that the seller is forgoing a return of 36 percent, which might indicate that the seller is having cash flow problems.

Another contra-revenue transaction is sales returns and allowances. Sales returns should only be made in accordance with corporate policies. A sales allowance is made when the seller does not want to have transaction costs (such as restocking) associated with returned goods. For example, a customer might have received some goods that were slightly damaged. Instead of returning the goods, the customer might request and receive an allowance on the amount owed to the seller.

KNOWLEDGE CHECK

1. When goods are shipped by the seller, the sales department
 - a. Prepares a sales order.
 - b. Cancels outstanding purchase orders.
 - c. Notifies accounts receivable to initiate the billing process.
 - d. Prepares a sequentially numbered sales invoice.
2. 2/10, Net 30 means the customer will get a 2 percent discount if he or she pays the balance
 - a. Within 10 days of the invoice date.
 - b. Within 30 days of the invoice date.
 - c. Within 20 days of the invoice date.
 - d. Within 15 days of the invoice date.
3. An example of a contra-revenue account is
 - a. Sales returns and allowances.
 - b. A credit sale.
 - c. Purchase returns and allowances.
 - d. Costs of goods sold.

² $[(360/20) \times 2] = 36\%$

Internal Controls in the Typical Revenue System

OVERVIEW

Even though it might not be obvious, the typical system previously discussed has numerous internal controls. This section will address these internal controls and the possible adverse consequences if these internal controls are not in place.

SEGREGATION OF DUTIES

One control that might not be obvious in the typical revenue system is adequate segregation of duties. Segregation of duties is a major part of a system of checks and balances to help ensure that errors and irregularities will not occur in the accounting system. An analogy of segregation of duties (checks and balances) is the different responsibilities delegated to the executive, legislative, and judicial branches of government by the Constitution of the United States.

In accounting systems, the following four duties should be separated:

- Bookkeeping
- Access to assets
- Independent reconciliation
- Authorization of transactions

In the typical revenue system previously discussed, these duties are separated. The authorization of the transaction is performed by the company's independent credit department. If the buyer was not granted credit, a credit sales transaction would not be processed, goods would not then in turn be shipped, and transactions would not be recorded, and so forth.

Only warehouse pickers have access to inventory. They are authorized to select inventory items and take them to shipping based upon an authorization form—a properly prepared picking ticket.

The shipping department will perform an independent reconciliation by comparing actual goods delivered by the picking department to the picking ticket.

The accounts receivable department will perform the bookkeeping function when transactions are posted to the accounts receivable subsidiary ledger and the sales journal upon receipt of shipping documents.

What could happen if the preceding duties were not separated?

First, assume that there is not a separate credit department to approve the credit sales transactions and sales personnel make that decision. Many sales department personnel are paid a commission on their sales. If the sales department could authorize sales without having a separate credit department to investigate the customer's credit, then there is a risk that the sales personnel will extend credit to customers who are unable to pay their account, and subsequently there will be an increase in the seller company's bad debt. The sales department has an incentive to provide credit to risky customers, as their commission will increase.

As another example of incompatible functions, assume that the pickers and shippers duties are not separated. Shippers can both ship and pick goods. (Alternatively, the pickers could also both pick and ship goods.) The shippers could be in collusion with valid customers or could create fictitious customers. The shippers could pick items that are not listed on the picking tickets and ship them to valid customers who pay the shippers a kickback. Additionally, shippers could pick goods and ship them to a fictitious customer's shipping address (a shipper's home address) without the need for an authorized picking ticket. The bookkeeping department would only receive shipping documents for the items contained on an approved picking ticket. No one would know that inventory was being stolen until a physical inventory was taken. If the shippers were in charge of taking the physical (independent reconciliation) inventory, then they could hide the theft.

There are numerous ways in which fraud or errors could occur due to lack of separation of duties. Additional exercises are presented at the end of the chapter concerning the impact of inadequate separation of duties in the typical revenue system addressed previously.

SALES ORDER CONTROLS

The sales-order-processing part of the revenue cycle has several controls. First, the sales-order process is initiated based upon the customer sending an authorized purchase order. This provides assurance that the sale is to a customer who approved the request for goods or services. Second, a background check on the customer's credit is performed by an independent credit department before the sale is authorized. This decreases the likelihood that the account will not be collected. This background check also provides assurance that the customer is a valid customer and not fictitious. Third, all sales are recorded on a preformatted form that is sequentially numbered. The preformatted form provides assurance that all required information needed to process the sale is obtained. The sequential numbering of the documents will allow the company to assess if any orders have been placed but lost in the process by having an employee periodically review the sequential numbering of all sales-order forms.

PICKING AND SHIPPING CONTROLS

There are several controls in the picking and shipping phase of the revenue cycle. First, a picking ticket is issued by an independent department to the picking department. This form serves as the basis for the movement of goods from the warehouse to the shipping department. The picking ticket is sequentially numbered. Picking department personnel will periodically review the sequentially numbered picking tickets to determine if any are missing or are long outstanding. If any picking tickets are missing or long outstanding, then an investigation can ensue to resolve this issue.

Another control is for the shipping department to compare the picked goods with the items contained on the picking ticket. This should help prevent sending the wrong goods to the customer. The shipping department will prepare a packing list to be placed with the goods that are being shipped; they will also prepare a bill of lading. These contractual forms serve as controls in the event the goods are lost in transit, as they provide a basis for claims made by either the customer or the seller, depending upon the shipping terms.

Copies of these shipping documents are forwarded to accounts receivable for billing purposes.

The sales department is also notified that the goods have been shipped so that outstanding sales orders can be marked filled. This will permit the sales-order department to promptly respond to customer inquiries as to the status of their orders.

BILLING CONTROLS

The shipping documents are a control, as they serve as authorization for accounts receivable to post transactions to the subsidiary accounts receivable and the sales journal. Having adequate books and records and timely posting of transactions is yet another control that is provided by having an accounts receivable department. The accounts receivable department will then send a sequentially numbered invoice to the customer for payment of the goods shipped. An invoice is a control, as it serves as a negative confirmation to the customer of the goods shipped and the amounts owed.

CONTRA-REVENUE SALES TRANSACTIONS AND CONTROL ISSUES

There are several control issues concerning contra-revenue journal entries (sales discounts and sales returns and allowances). These issues are addressed in the following paragraphs.

There is a control concern when the accounts receivable clerk also has access to cash receipts. In many entities the actual cash receipt is given to the bookkeeper for posting. The bookkeeper also often makes the bank deposit and prepares the bank reconciliation. Unfortunately, this type of system allows inadequate segregation of duties between the bookkeeping, independent reconciliation, and access to assets functions.

How does this inadequate segregation of duties affect contra-revenue transactions from a control standpoint? It is important to review how this type of system would permit fraud if the company offered sales discounts.

The accounts receivable clerk could keep 2 percent of all sales for customers who are not paying within the discount period. How does this happen? The accounts receivable clerk will state that the customer paid their account within 10 days when the customer did not. The accounts receivable clerk will then post the books indicating that payment was made within 10 days. The bookkeeper, when taking the deposit to the bank, will get cash back on the deposit equal to the 2 percent discount.

IDENTIFYING RISKS AND DETERMINING COST-BENEFIT OF INTERNAL CONTROLS

It is important to note that a control matrix is often constructed to aid management, auditors, and others in identifying and summarizing controls and risks in a particular system. Before a control matrix can be constructed for a particular system, the risks and controls for that system must first be identified. One method to identify risks and controls is brainstorming, and this is addressed later in this section. First, an example of the impact of a control on risks is presented.

Consider, for example, the impact of a simple control on mitigating risks. The requirement to use a numerically sequenced form or preformatted computer screen to record sales orders, can mitigate several risks. First, the risk that important information to process the sale might not be captured is avoided as all critical fields must be completed before additional processing can take place. If the sales order is entered on a preformatted screen, then the data-entry clerk is not allowed to proceed to subsequent processing steps unless all required fields are complete and in the correct format (alphabetic, numeric, and so on). Second, a sales order form or preformatted screen is numerically sequenced. The accounting for the numerical sequence of the sales-order transaction provides assurance that missing orders are identified. For example, in a manual system, a missing sales-order form might be an indication of fraud. Typically the forms are available to everyone in the accounting function. An unscrupulous accounts receivable clerk might steal a sales order form and have goods shipped to a conspirator's warehouse. When the shipping department forwards the shipping documents to the accounts receivable department for invoicing, the accounts receivable clerk would then destroy the shipping documents. The "customer" would never be billed. What would be an appropriate control to mitigate this risk? An independent employee, such as an internal auditor or others, could account for the numerical sequence of sales order forms. A missing sales-order form is a red flag that a fraud (or an error) may have occurred and should be investigated by appropriate employees.

How does one identify risks such as those addressed previously? This is typically accomplished by having persons involved in a particular process brainstorm about what could go wrong. The brainstorming session should identify risks in the transaction process that could *potentially* occur due to error or fraud. It is important to note that the fact that error or fraud has not occurred in a particular system does not imply that error or fraud could occur in a particular system. For example, a restaurant might correctly fill the orders of one drive-through customer a hundred consecutive times. Does this imply that the order will be correct the next time the customer uses the drive through? Absolutely not, in this system, as well as in all others being evaluated, the potential for error or fraud should be identified in order to design cost-effective controls to mitigate the *potential* error or fraud.

After identifying potential risks due to error or fraud, the brainstorming team should rank the risks according to magnitude of exposure. The team should ask themselves, "Which of these would keep me up at night?" or a similar question to identify the most significant risks.

After the most significant risks are identified, then an evaluation of which cost-effective controls, if any, should be employed to mitigate the risk. For example, in many smaller businesses, one individual processes all transactions for all accounting systems—such as processing cash receipts, posting, performing the bank reconciliation, and so on. The control weakness in this example is obvious. There is pervasive inadequate segregation of duties, and therefore material errors or irregularities could occur and not be detected. What cost-effective controls can be put in place to mitigate the weakness of inadequate segregation of duties? There are many controls (each with different costs and benefits), and two controls are addressed as follows.

First, the bookkeeper should be told that all of his or her transactions are recorded on a computer log which is not accessible by the bookkeeper, and that these transactions are reviewed by management.³ Management could then perform a detailed review of transactions and compare the transactions with their knowledge of the business. The bookkeeper might not enter any fraudulent transactions, as he or she knows that all transactions will be reviewed by management and that the likelihood of being caught is high. However, this might be considered a costly control, depending upon the volume of transactions. The benefit is that *every* transaction will be reviewed for error or irregularity—a zero-tolerance approach.

³This is accomplished by the implementation of access rights.

If review of all transactions by management is considered too costly, then management might consider a less costly control, such as having management review various “management exception” reports. A commonly used management exception report is a budget variance report. Management would review all variances above or below a certain threshold. Management could then focus its attention on significant variances from their expectations instead of reviewing every transaction. However, in this case, the bookkeeper might initiate fraudulent transactions that are below the threshold that management uses to investigate variances. The cost of this control, review of management by exception reports, is lower than management’s review of every transaction. However, there is a greater risk that a low dollar amount of errors or fraudulent transactions could be made by the bookkeeper, which could cumulatively be material. Management must weigh the cost of the controls with the benefits that they wish to achieve—zero tolerance or a small dollar amount of error or fraud.

CONTROL MATRIX—REVENUE CYCLE

A control matrix that summarizes how controls achieve different control objectives is presented for the revenue cycle in exhibit 1-4. This exhibit is an example, the purpose of which is to acknowledge that a single control can mitigate several risks. This is extremely important to determine when reviewing risks and controls of a company, as it can have a significant impact on a cost-benefit analysis of implementing a control. (It also has a big impact on determining how to best streamline a test of controls, as testing a control that mitigates multiple risks is more efficient than testing multiple controls that mitigate only several risks.)

 Exhibit 1-4 Revenue Control Matrix				
Objectives				
	Sales are made to valid customers	Revenue transactions are recorded	Invoices are sent for goods shipped at the correct amount	Sales are recorded in the correct period
Control Activities				
The credit department reviews new customers’ credit reports	X			
A sequentially numbered sales order forms are used		X		X
A review of outstanding sales orders is made	X	X		X
Inventory is checked to see if enough is in stock to fill the order			X	X



Exhibit 1-4 Revenue Control Matrix (continued)

Objectives

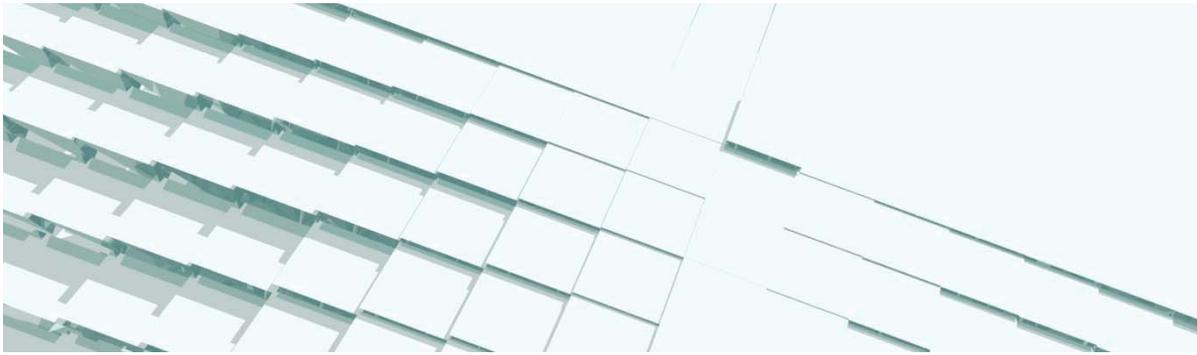
	Sales are made to valid customers	Revenue transactions are recorded	Invoices are sent for goods shipped at the correct amount	Sales are recorded in the correct period
Accounts receivable compares customer P.O. with sales order and shipping documents			X	X
Shipping compares picking tickets with actual goods before shipment			X	X
Invoices are sent to customers			X	X
Accounts receivable posts invoices to sales journal and accounts receivable		X		X

KNOWLEDGE CHECK

4. A control where the credit department reviews new customers' credit reports achieves which control objective?
 - a. Invoices are sent for goods shipped at the correct amount.
 - b. Sales are made to valid customers.
 - c. Revenue transactions are recorded.
 - d. Sales are recorded in the correct period.

Summary

This chapter addressed the processes in a typical revenue system. A discussion of some of the controls that should exist in a typical revenue system was provided along with numerous examples of risks to various revenue systems if certain controls were not in place. It was noted that brainstorming is often used to help identify risks in different systems. An overview of the cost-benefit relationship of controls was addressed. Finally, an example of a control matrix was provided as a means to summarize how controls achieve a particular system's control objectives.



Chapter 2

OTHER REVENUE CYCLES

LEARNING OBJECTIVES

After completing this course, you should be able to do the following:

- Identify the different phases in the retail, service, and manufacturing revenue cycles.
- Recall the different documents (electronic and paper) that are typically used in the retail, service, and manufacturing revenue cycles.
- Recognize risks in the retail, service, and manufacturing revenue cycles.
- Identify various financial statement assertions.

INTRODUCTION

There are numerous types of revenue cycles in place today. Additionally, each type of revenue cycle can also have a variation of processes and procedures. This chapter will focus on the three common types of revenue cycles that follow

- Retail
- Manufacturing
- Service

The retail revenue cycle is somewhat unique as, in many retail revenue systems, customers can select their own inventory and take it to a payment station where the customer records the transactions and makes payment (through a self-checkout system). A variation of this type of retail revenue cycle is that customer can take their goods to a payment station and then the store's employees will record the transactions. A third option would be for customers to go to a "brick-and-mortar" business's electronic storefront online and place an order. In this scenario, the retail store's employees will select the goods while the customer

drives to a pick-up area where the store's employees will load the goods in the customer's car (such as at grocery store). Some retail stores will even deliver the goods to the customer's house (such as home delivery of prescription medication by drug stores).

Service industry revenue cycles may also vary. For example, some service entities, such as a physician's office, might require prepayment for services that are not covered by the patient's medical insurance. Other service businesses, such as a lawn maintenance firm, might request payment after the service is performed.

Manufacturing revenue systems are somewhat more complex than the service or retail industries' revenue systems. The manufacturing company might base its revenue on how the cost for product is measured. The manufacturing company might use job costing for special orders and process costing for manufacturing of bulk goods. The company might have sophisticated inventory systems if they use just-in-time inventory or have vendor-managed inventory. There might be multiple stages of production that occur in locations geographically remote from the final assembly plant.

The retail, service, and manufacturing revenue cycle examples presented in this chapter will provide examples of the types of common internal controls that businesses should employ in these types of revenue cycles. Admittedly, the reader's particular system most likely will not mirror the systems that are presented in this course. However, the control concepts presented for each system can be generalized to a myriad of various retail, service, and manufacturing revenue systems.

KNOWLEDGE CHECK

1. Job-cost records would typically be used by
 - a. A retail entity.
 - b. A manufacturing entity.
 - c. A service entity.
 - d. A not-for-profit entity.

Typical Retail Revenue Cycle

SELECTING GOODS

A grocery store will serve as an example of a typical retail revenue cycle in place today. Two types of systems will be presented in order to illustrate best practices that should be present in these systems. In one system, the customer will use the retail store's self-checkout station, and in the other, the store's employees will process the transaction (scanning and bagging goods) at a payment station.

In both of these systems, the customer will have access to most of the store's inventory. High-priced goods or goods highly susceptible to theft are usually not accessible to customers and should have additional physical safeguards. For example, tobacco products and certain over-the-counter medications should be kept locked in a cabinet with access restricted to authorized employees.

The customer can determine the selected item's price by observing the price prominently displayed in print in front of a group of items. In most cases, each individual item does not have a price that can be read by the customer. Most items have a barcode that can be scanned so that the customer can ascertain that the price on the item corresponds with the price printed in front of the group of items. Other items might not have a barcode, such as bulk items or fruits and vegetables. These items are often priced based upon their weight – and the weight of these items varies. Customers are often provided with scales to weigh the items. However, in order to determine the item's total cost before it is purchased, the customer must perform a calculation of the item's weight (in pounds, ounces, and so on) times the price.

Some fruits and vegetables will have an identifying code (a four digit number, for example) placed on each item, such as an orange having a code stamped on its side. Other fruits and vegetables will not have a code identifying the product and the cashier or the customer must look up the proper code at the payment station's terminal and then enter the proper code. There is yet another option provided for coding bulk items. The customer will place the bulk items in a bag and write a code (the code is on the container that holds the bulk items) on a tag and attach the tag to the bag that identifies the bulk items. The code stamped on the fruits and vegetables or the code written on the tag by the customer will subsequently be entered at a payment station to record the transaction.

After the customer has selected all of the needed goods, the customer will then proceed to a payment station to pay for them.

PAYMENT FOR GOODS

As mentioned previously, at many retail establishments, including grocery stores, the customer is provided with the following two payment options:

- The customer can use a self-checkout method of payment. In this case the customer scans, bags, and pays for the goods.
- The customer can take the goods to a payment station where the retailer's employees scan, bag, and accept payment for the goods.

The types of controls that should be in place depend upon the payment method that the customer selects. The internal controls in a model retail revenue cycle will be addressed first in order to highlight the weaknesses in these two systems.

INTERNAL CONTROL ISSUES IN A MODEL RETAIL REVENUE SYSTEM

System with Adequate Segregation of Duties

Many retail revenue cycles in the 1990s and prior years had segregation of duties which are not present today. For example, prior to self-checkout and acceptance of credit cards by grocery stores (payments were only by cash or checks), the model retail revenue cycle in a grocery store processes were as follows:

1. The customer selects goods and takes them to a payment station (access to assets).
2. A store employee (cashier) records the sale by various methods, including scanning each item's barcode (bookkeeping). Items that do not have a barcode are recorded by the store clerk after finding the correct price (weighing the item, and so on).
3. Another store employee bags the goods (independent reconciliation).
4. If the customer pays by check, then the store manager or another authorized employee approves the check (authorization of transaction).
5. After the customer pays for the goods, a sales receipt is prepared and given to the customer.

This system has adequate segregation of duties as the customer has access to assets, one store employee records the sale (bookkeeping), another store employee bags the goods (independent reconciliation), and still another store employee approves the check (authorization). The conceptual model of segregation of duties is in place, as all incompatible functions are separated. Inadequate segregation of duties would exist, for example, if the customer checks himself or herself out (access to assets, independent reconciliation, and bookkeeping) or if the cashier both records the transaction and bags the goods (bookkeeping and independent reconciliation).

The controls in place in this model system may not be obvious. However, consider the employee who bags the goods. This employee is performing independent reconciliation by observing the cashier, who records transactions. This provides assurance that the person recording transactions is recording all transactions at the proper amount.

The employee who approves the check is providing assurance that the check will be good and that the store will not accept fake checks or false identification. This control decreases the likelihood of collusion between the customer and the cashier as the cashier will not be allowed to accept checks as payment for goods without approval of the check by an authorized employee. For example, the cashier could accept a counterfeit check from a conspirator and the “customer” could take the groceries at no cost and then pay the cashier a kickback for accepting the check. The inadequate segregation of duties in this example is the combination of bookkeeping and authorization functions assumed by one employee—the cashier.

Another control is that the store's employee will record the transaction instead of the customer. This will prevent the customer from inputting an incorrect code and, for example, getting cantaloupe at green-bean prices.

A flowchart of a model system with adequate segregation of duties is provided in exhibit 2-1.

Errors in the Model System

It is important to note that even in this model system with adequate segregation of duties, there is a risk that errors and irregularities could occur and not be prevented or detected. For example, a customer could inadvertently put the wrong code on a tag attached to a bulk item that is not detected by the cashier or bagger. The cashier would enter the code, for example, for green beans when the code for apples should have been entered. Consequently, inventory of the incorrectly entered item (green beans) is reduced and the wrong price is charged for the item that should have been recorded (because apples have a different price than green beans). If the inventory is managed by the vendor, then the store might have an excessive amount of green beans and might not have enough apples on hand to meet demand. The vendor will ship more green beans and not apples based upon the bookkeeping error caused by the incorrect coding of the sold item.

Fraud in a Model System

An example of fraud, even in a system where there is adequate segregation of duties, as mentioned previously, is collusion between the cashier and the customer. The types of fraud that could occur, in addition to the one addressed previously, include, but are not limited to the following:

- The cashier might enter the wrong code for bulk items and charge a lower price for higher-priced goods.
- The cashier might enter a code for a low-priced item (such as soft drinks) when the actual item being scanned is a high-priced item (such as lobster).

Hence, even in a system with an adequate segregation of duties, there is still a risk of inadvertent mistakes or intentional misappropriation of assets.

RETAIL REVENUE SYSTEM WITH SELF-CHECKOUT

The self-checkout system has been in widespread use by many retail stores since the late 1990s. Self-checkout poses many internal control issues simply due to the fact that the customer performs all duties that in prior systems were segregated. The customer has access to assets (in the store), performs bookkeeping (scans the goods), independent reconciliation (bags the goods), and makes payment with cash, debit card, or credit card (authorization of the transaction). In order to identify risks in this cycle, the control evaluator will ask, what can go wrong? Some of the answers are presented in the following text:

- The customer could switch barcodes on items and, for example, put a barcode from a cereal box on a package of rib-eye steaks.
- The customer could place a package of rib-eye steaks on a scale (not scan the barcode on the package) and enter the code for green beans.
- The customer might accidentally enter the wrong code for items that do not have a barcode.
- The customer could purchase a barcode maker (available at numerous websites) and place, for example, a barcode for a soft drink on the package of rib-eye steaks.
- The customer might not scan the package of rib-eye steaks and leave them in the shopping cart, walking out of the store having actually paid for only some of the items in the cart.

The preceding list of answers to the “what could go wrong?” question is not exhaustive. What are some controls that retail grocery stores have implemented to mitigate the preceding exposures? There are several:

- A store employee is present to observe customers at the self-checkout.
- Cameras are present to observe activity at all payment stations.
- A camera is placed at each payment station that permits the store employee to observe the product that is being scanned (is the correct code being entered for the fruit or vegetable or other items placed on the scale?). The item being scanned and a written description of what is being scanned (apples or oranges) is displayed on the store employee’s monitor.
- A scale is calibrated which indicates errors if the weight of an item purchased does not match up with the expected weight.

Why did the grocery stores implement the self-checkout option for customers? The stores evaluated the cost-benefit of providing this option. The store does not have to hire and train as many employees to comply with prior internal control models, which required that duties be segregated and that all duties be performed by store employees, not customers. There is a risk that customers can switch barcodes, not scan items, and make errors. However, this risk is mitigated by having only one employee observe the operations at several payment stations. However, only having one set of “seeing eyes” presents a risk in and of itself. For example, consider the case where two customers are in collusion. The store has four payment stations that are observed by one employee. The two perpetrators can scan goods at separate pay stations. One perpetrator intentionally makes an error that requires the employee’s presence at the payment station. The other perpetrator, who knows he or she is being observed by store cameras, will scan a barcode for a soft drink placed on the package of rib-eye steaks. It appears to the observer that this perpetrator is following normal checkout procedures. This perpetrator has stolen from the store by taking a “discount” on rib-eye steaks. The employee who would detect this fraud by observing it on his or her monitor is away assisting a customer who is having “problems” at one of the payment stations.

The store could employ additional controls to decrease the collusion risk presented previously. For example, the store could use analytical procedures to highlight unusual transactions for additional scrutiny. The store could calculate the average per-item price and multiply the average price times the

number of items scanned by the perpetrator. This calculated result would be compared with a statistical range and any purchase that was outside of this range would require an additional procedure—such as having a store employee compare the items on a sales receipt with the items in the customer’s bags. For example, the customer could have purchased twenty-five items and the store’s statistical model might predict that the total for this purchase should be \$100 plus or minus \$10. If the customer’s payment total was \$2, then this transaction would require additional scrutiny by the store’s employees.

No system will eliminate all risks. The controls that will be implemented in any system should consider the cost of the control in relation to the control’s benefits. It might not be considered cost effective for the store to hire another employee to compare items on a sales receipt with the items in the customer’s possession when an analytical procedure indicates that an anomaly has occurred that should be investigated. The cost of the additional employee and increased customer dissatisfaction might be significantly higher than the benefit of discovering fraud or errors inherent in the system.

CONTROL MATRIX—RETAIL REVENUE CYCLE

An example of a control matrix for the retail revenue cycle is contained in exhibit 2-2. Note that this and other control matrices in this chapter will also include a categorization by financial statement assertions. AU-C section 315, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatements*, lists the following five financial statement assertions made by management about classes of transactions and events for the period under audit:

- **Occurrence** – Transactions and events that have been recorded have occurred and pertain to the entity.
- **Completeness** – All transactions and events that should have been recorded have been recorded.
- **Accuracy** – Amounts and other data relating to recorded transactions and events have been recorded appropriately.
- **Cutoff** – Transactions and events have been recorded in the correct accounting period.
- **Classification** – Transactions and events have been recorded in the proper accounts.

There are numerous controls in the examples of the retail revenue cycle that provide assurance that management assertions and objectives concerning the financial statements are achieved. Some of these controls are presented in an example control matrix for the retail revenue cycle in exhibit 2-2. Note that sometimes one control will achieve multiple financial statement objectives.



Exhibit 2-2 Retail Revenue Cycle Control Matrix

Objectives

	Sales are made to valid customers (occurrence)	All sales transactions are recorded (completeness)	Recorded sales are at the correct amount for items sold (accuracy)	Sales transactions are recorded in the proper period (cutoff)	Recorded sales transactions are posted to the appropriate account (classification)
Control Activities					
The overwhelming majority of inventory items have a barcode			X		X
All self-checkout pay stations are observed by a store employee	X	X			
Each self-checkout pay station has a camera that permits a store employee to observe the item that is being scanned		X	X		X



Exhibit 2-2 Retail Revenue Cycle Control Matrix (continued)

Objectives

	Sales are made to valid customers (occurrence)	All sales transactions are recorded (completeness)	Recorded sales are at the correct amount for items sold (accuracy)	Sales transactions are recorded in the proper period (cutoff)	Recorded sales transactions are posted to the appropriate account (classification)
High priced items are kept in a secure location with access only by authorized employees		X			
Customers who pay by check must have the check approved by an authorized employee	X				
Customers are provided with a sales receipt			X	X	X
The customer pays by cash, credit card, or debit card at self-checkout pay stations	X				

KNOWLEDGE CHECK

2. In a retail store, the control that items have a barcode that will be scanned at the checkout achieves which objective?
 - a. Sales transactions are recorded in the proper period.
 - b. Recorded sales are at the correct amount for items sold.
 - c. All sales transactions are recorded.
 - d. Sales transactions are made to valid customers.

3. Even in a system with adequate segregation of duties, there is still a risk that controls can be circumvented due to
 - a. Collusion.
 - b. Inadequate training.
 - c. Inadequate supervision.
 - d. Inadequate independent reconciliation.

Typical Manufacturing Revenue Cycle

PROCESS

As mentioned previously, the manufacturing revenue cycle is generally more complex than either the retail or service revenue cycles. An example of one type of manufacturing system follows. This manufacturing system assumes that the job-cost accounting method is used.

A job-cost system is employed when an order for a custom product is placed by a customer. For example, a customer (car dealership) might order a car with specific options such as heated seats and a navigation system. A purchase order that includes the requested specifications is sent to the automobile manufacturer. The automobile manufacturer's credit department will then review the customer's credit and, if the customer's credit meets predefined specifications, then the manufacturer will create a sales order.

A sales order is the source information that the manufacturer's planning department will use to schedule production. All sales orders are incorporated into a master plan that will be used by several departments. The master plan information is used by

- Human resources to provide assurance that sufficient labor is available to produce the products within a promised time frame.
- Inventory control to determine if sufficient raw materials are on hand to manufacture the products.
- Purchasing, who, after receiving information from inventory control, might need to order raw materials to provide assurance that a certain safety stock of raw materials will be maintained.

When the product is initially designed by the manufacturing company's engineering department, a standard bill of materials is created for all raw materials needed to make the particular product. Additionally, a standard amount of labor hours is calculated for each manufacturing activity. These standards will eventually be compared with the actual raw materials used and the actual time spent to produce the goods. The difference between the actual and standard material and labor amounts (variances) will be used by cost accounting to prepare numerous reports. For example, cost accounting can produce exception reports which highlight only large or unusual variances. Management would then spend their limited time investigating variances that exceed a certain threshold amount.

Indirect costs (overhead such as the plant's utilities, depreciation on equipment, and more) will also be allocated to each product based upon a predefined formula.

The planning department will schedule when each order is to be manufactured. Next, a production order will be issued to the production department and the manufacturing process will begin. A copy of the production order is also given to cost accounting so that job-cost records can be created. A production order is the authorization for production of specific orders. The production order contains the standard hours for each activity, the standard amount of raw materials, and the sequence of activities to be performed. The production department will obtain the needed raw materials from the warehouse by presenting the warehouse with an authorized standard bill of materials needed for the items that will be produced. The warehouse is located in a separate secure area of the plant, has fencing around the area, and access to the warehouse area is restricted to warehouse employees. Warehouse employees must possess a key that permits access to the warehouse through various locked doors. Additionally, there are surveillance cameras in both the warehouse and on the factory floor. The warehouse personnel will notify

cost accounting of the goods issued to production so that the job-cost record can be updated for the issued raw materials.

Job time tickets are given to the laborers so that the time spent on each phase of the job can be recorded. The job time tickets are sent to cost accounting so that labor costs can be posted to individual job records. These labor and materials costs are recorded in the work-in-process account.

Many manufacturing companies will record when a particular order has moved from one workstation to the next. This information helps customer service representatives to quickly respond to customer inquiries about the status of their order and when the order should be completed.

When the order is completed, the manufactured product is inspected by quality control personnel. If the item passes inspection, then the goods are shipped and the customer is billed. Additionally, after the product passes inspection, cost accounting is notified to move the order's costs from work-in-process to finished goods. Cost accounting will then produce numerous variance reports that are distributed to management for review and appropriate action.

A flowchart of this example is presented in exhibit 2-3.



Exhibit 2-3 Typical Manufacturing Revenue Cycle

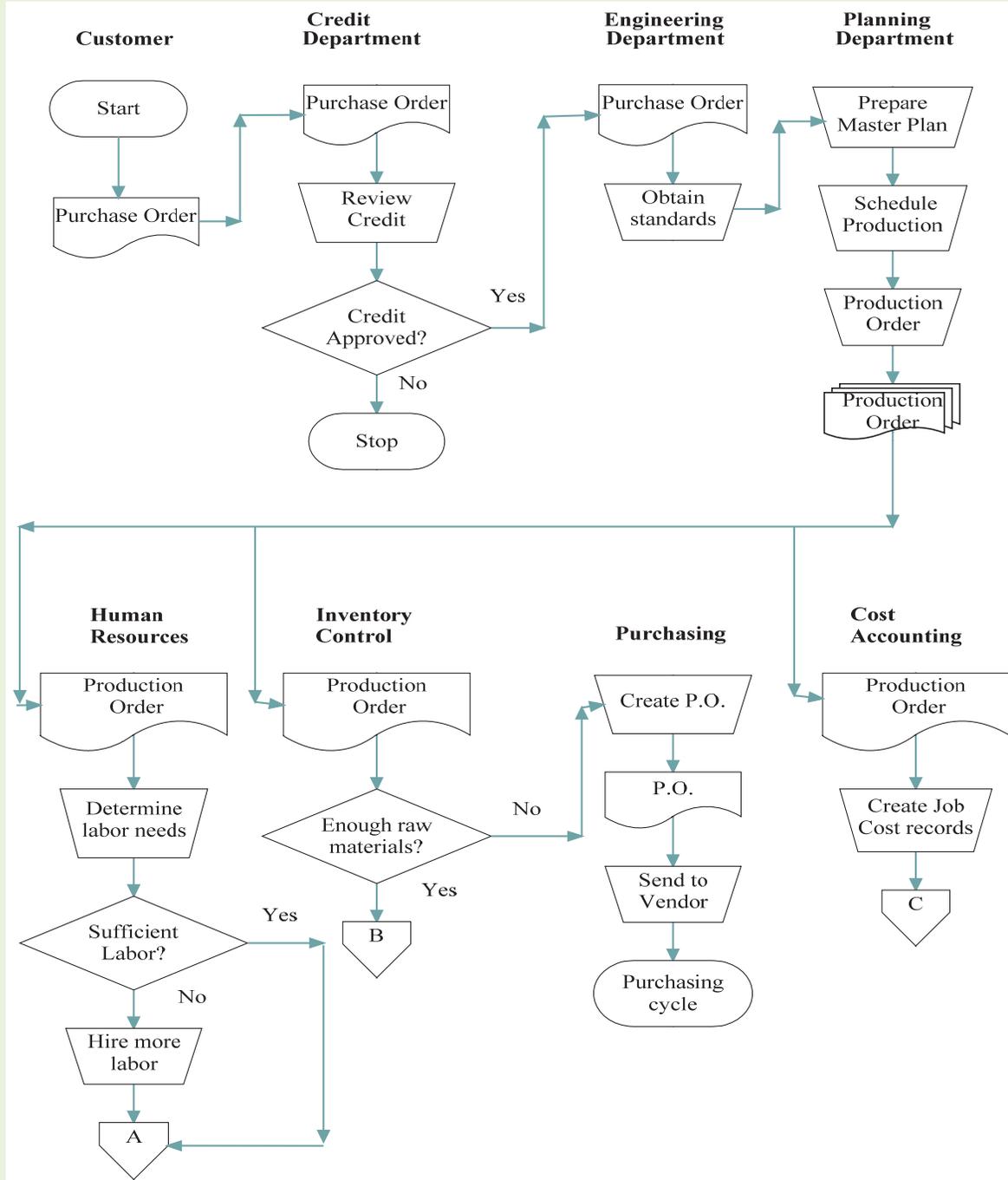
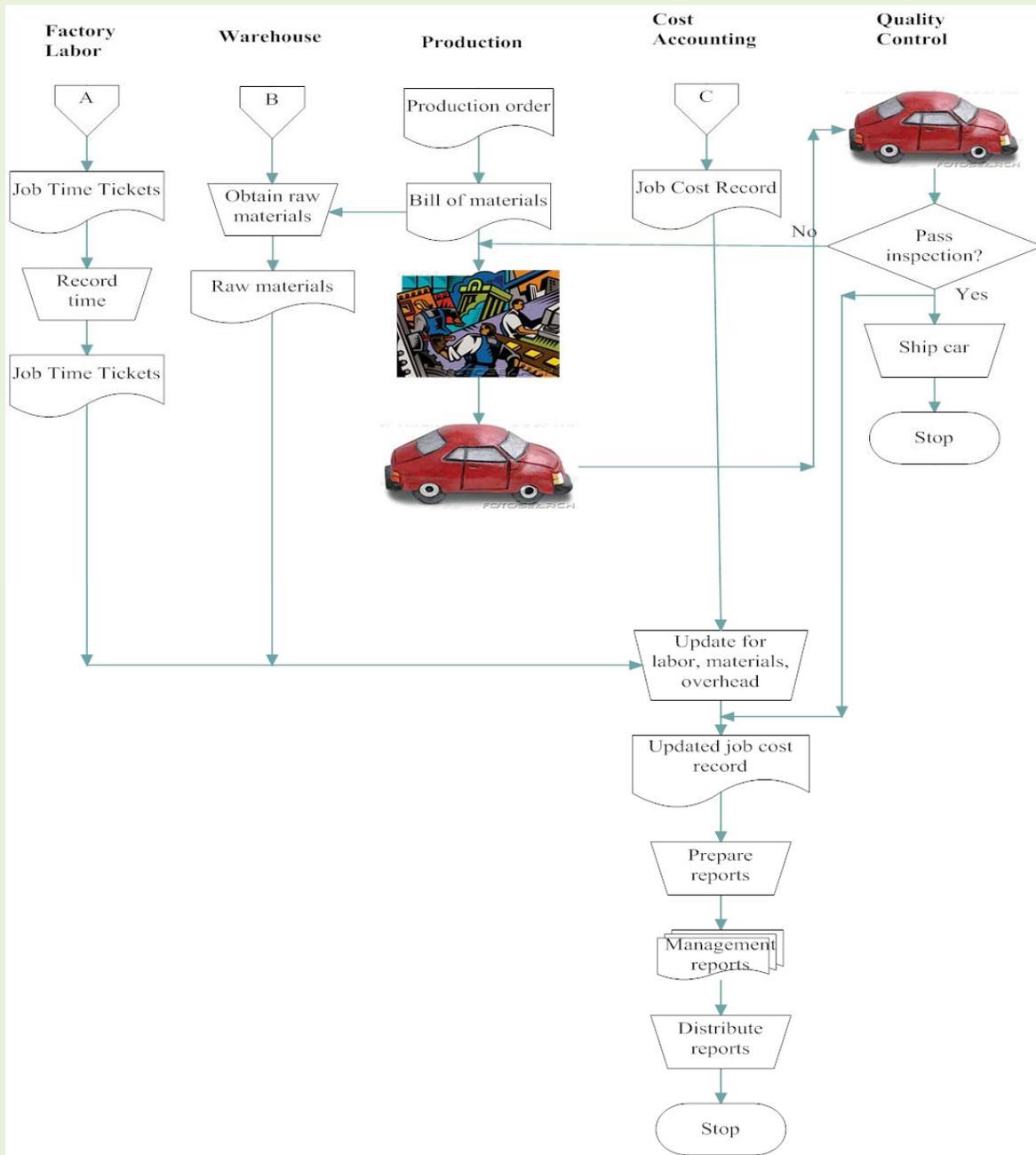




Exhibit 2-3 Typical Manufacturing Revenue Cycle (continued)



INTERNAL CONTROLS IN A TYPICAL MANUFACTURING REVENUE CYCLE

Internal Controls

The typical manufacturing company addressed previously; has segregation of duties between access to assets, bookkeeping, authorization of transactions, and independent reconciliation. These duties are segregated as follows:

- **Bookkeeping** – Is performed by cost accounting. Cost accounting will record both actual and standard costs by job order.
- **Access to assets** – Asset (raw materials) access is under the custody of warehouse personnel. Warehouse personnel will release raw materials to production upon receipt of an authorized bill of materials.
- **Authorization of transactions** – The planning department will issue a production order, which is the authorization for the production process to begin.
- **Independent reconciliation** – Cost accounting will prepare variance analysis and other exception reports for follow-up by supervisory personnel.

There are also other controls that might not be evident on the surface. Assets (raw materials) are physically safeguarded by being under the control of a separate, independent group of employees (warehouse personnel) in a separate secure area of the plant. Surveillance cameras are located in both the warehouse and factory, which serve as a preventive control against the misappropriation of assets.

Customer credit is investigated before production is initiated on the customer's order. This prevents the initiation of production for customers who might not be able to pay for the finished goods.

There are standard costs for labor and materials which are developed by an independent engineering department. These standards assist in planning the purchase of raw materials and the hiring or laying off of labor. This results in helping avoid excessive investment in raw materials and adverse publicity due to layoffs caused by improper planning.

Quality control personnel inspect the product to provide assurance that only goods that meet certain specifications are delivered to customers. This prevents excessive costs being incurred because of customers returning goods that contain defects or do not meet their specifications.

Although not mentioned in the case, a common control is for an independent employee to compare labor time charged to jobs with labor time reported for payroll purposes. A large variance might indicate either that the employee is not productive or that human resources or others have created a ghost employee.

Errors and Controls

There are numerous ways errors can occur in the manufacturing cycle. Some of these errors are presented in the following.

The product might be engineered poorly. For example, there have been automobiles manufactured that had serious mechanical or structural problems. One model was alleged to self-start and drive off by itself. Several other models have had faulty fuel tanks.

An example of an accounting error is that a factory laborer might charge his or her time worked to the wrong job code by entering the code for another job on his or her time ticket. Another error would be that the wrong options were placed on the product, and this might not be discovered until the final stage

of production—inspection of the product by the quality control department. Still yet another error would be an error in the calculation of overhead that is assigned to the job by cost accounting.

How can these errors be prevented? Consider the problems associated with the improper design of a product. One control would be that engineering specifications should be subject to close scrutiny by engineering specialists who did not work on determining specifications for the product they review. Another control would require that prototypes be built and tested before full-scale production of the product begins.

How could improper coding of the job on the laborer's time ticket be prevented? A supervisor could review all time tickets before they are sent to cost accounting to provide assurance that the code was correct.

How could the placing of the wrong options on the product be prevented? A comparison could be made between the job specifications and the actual raw materials used at each stage of production by a quality-control employee.

How could errors in the calculation of overhead by cost accounting be prevented or detected? The calculation could be programmed on a spreadsheet or computer program and extensively tested. A review of the parameters entered into the spreadsheet or computer program could be made by another employee before posting of overhead is made.

Fraud

Two examples of how fraud can occur in the manufacturing revenue cycle addressed previously are presented. Please note that the examples are not exhaustive of the types of fraud that can occur. One fraud example addresses a labor fraud, and the other, a raw materials fraud.

One common method factory laborers use to commit fraud is to charge time to jobs when the employee either did not work on the job or the actual work time was less than what was recorded. This fraud would not be detected until cost accounting distributed exception reports, allowing management to discover that the actual labor charged is more than the standard allowed. How does this fraud happen? In a strong system of internal controls, factory laborers' time charged to jobs and for payroll purposes is approved by an appropriate supervisor. The supervisor could be in collusion with the employee, and the supervisor could let the employee have "time off" and then approve the "time off" as chargeable time to jobs. The employee would then pay the supervisor for the compensation received for the "time off" (a kickback). When the supervisor is asked to explain the labor variance, he or she will place the blame on human resources for the unfavorable variance. The supervisor will say, for example, "The reason for the labor variance is that human resources is hiring labor that does not have the appropriate qualifications for the job. The reason for the labor variance is that we (manufacturing departments) have to provide additional training to the factory laborers."

One type of fraud that can occur with raw materials is that the purchasing department obtains raw materials that are lower in quality when compared with engineering specifications for the product. The purchasing department will then be paid a kickback by the vendor. This fraud might or might not come to light, depending upon whether or not the lower-quality raw material incorporated into the product causes a product failure. For example, a customer once bought a new car and, within six months, the paint on the car began to fade. A complaint was lodged with the automobile dealership, who then forwarded the complaint to the automobile manufacturer. An investigation ensued with the results not being made known to either the dealership or the owner of the car. The following section is a possible scenario of the investigation.

Fraud Case

Corporate management believes that the high level of complaints due to the fading paint problem justifies an investigation by an independent employee. An internal auditor is asked to investigate this issue. The internal auditor believes that some personnel in the purchasing department are receiving a kickback from vendors. This is based upon the internal auditor's examination of several of the purchasing department's employees' lifestyles. These employees are interviewed by the internal auditor as to the cause of the fading paint problem and the internal auditor suggests that the problem is due to the acquisition of substandard paint. The purchasing department personnel argue that the paint problem is possibly due to issues other than improprieties or errors on their part. The suspects in the purchasing department propose that the fading paint problem is due to a problem in the production process. They propose that the manufacturing division either used unqualified labor to paint the automobile or that the laborers did not follow the specified procedures to paint the automobile. Another argument posed by the suspects is that the warehouse does receive high quality paint, but the warehouse employees are not issuing the paint until after the paint's expiration date and therefore the automobiles are being painted with substandard paint.

Previously, the cost-benefit of internal controls was addressed and will be related to this example. There are also costs and benefits that should be considered when performing an investigation, as different hypotheses about "who done it" have different investigative costs. Assume that the investigator has two investigative options in this case—one more costly than the other. In the first option, the internal auditor who is investigating the fading paint complaint must have tenacity and not be willing to accept the purchasing department's arguments at face value. The investigator should spend time and resources to track down the underlying cause for the fading paint. This investigative cost must be compared with the anticipated benefit of the cost savings derived from not selling automobiles with a defect (bad paint) that must be repaired at the company's expense. The internal auditor would then perform procedures to include or exclude *all* of the following hypotheses:

- The purchasing department has employees who are receiving kickbacks.
- The warehouse keeps high-quality paint for an extended period of time and issues subsequently any expired paint to the production department.
- The production department uses unskilled labor to paint the cars.

The costs of the investigation under this option would be greater than the second option presented in the following.

The second, lower-cost option is that the internal auditor will only obtain evidence concerning one of the preceding hypotheses starting with the hypothesis that has the lowest cost of evidence accumulation that either reports or refutes the hypothesis. If the hypothesis is accepted, then the investigation will end, as limited resources will prevent the internal auditor from obtaining evidence about the other hypotheses. First, the internal auditor can accept the purchasing department suspects' argument that human resources hires unskilled labor. After performing a limited review of personnel files in the human resources department, the investigator might conclude that the purchasing department is correct—unskilled labor is applying paint to the automobiles incorrectly and that this has caused the paint fading problem. Attention will be then directed toward the human resources department to explain why unskilled labor was hired. Costs of the investigation were relatively low (review of personnel files) and the benefits in terms of monetary savings (hire skilled labor and reduce warranty claims) and intangibles (the purchasing department is assumed to be ethical) were relatively high.

If the internal auditor were to test the hypothesis that expired paint was being issued by the warehouse to the production department, then the internal auditor would need to examine the paint currently used in production to assess if production was indeed using expired paint. The internal auditor might also review

historical bills of materials which contain specifications about the paint that was issued by the warehouse to production to discern whether or not the issued paint had expired. These procedures may be a bit more costly than review of personnel files.

Finally, the internal auditor might obtain extensive evidence on purchasing personnel in order to conclude whether or not they are indeed being paid a kickback. The internal auditor might hire an outside agency to follow the suspects and observe their behavior (for example, are the suspects eating at high-end restaurants?). Additionally, the internal auditor might go dumpster diving and take materials out of the trash cans put on the street by the suspects and review the trash cans' contents. For example, discarded phone bills might show a pattern of contact with corporate vendors.

Again, this second option requires the investigator to end the investigation after finding that there is ample evidence to support one of the hypotheses. This second option might be used in corporations where there are limited investigative resources. The investigator would never know if there were additional reasons for the fading paint (other than the use of unskilled labor)—such as the warehouse issuing paint that is beyond its expiration date to production, or purchasing personnel accepting bribes, or some other hypothesis not presented in this example. Corporation management, by analyzing the costs and benefits, after being informed of the possibility that there might be additional causes of the fading paint problem, can make a decision as to whether or not the internal auditor should obtain additional evidence to accept or refute the two remaining hypotheses.

CONTROL MATRIX

An example of a control matrix that lists several controls present in the manufacturing revenue cycle is presented in exhibit 2-4. Note that one control can achieve multiple objectives and assertions regarding the manufacturing revenue transaction cycle.



Exhibit 2-4 Manufacturing Revenue Cycle Control Matrix

Objectives

	Products are made for valid customers (occurrence)	All transactions are recorded (completeness)	All product costs are at the correct amount (accuracy)	All costs are recorded in the proper period (cutoff)	All costs are charged to the correct job (classification)
Control Activities					
Overhead is allocated based upon a predefined formula		X	X		X
Management by exception reports are produced		X	X	X	
Job time tickets are used by laborers		X	X	X	X
Quality control notifies accounting when goods pass inspection		X		X	

KNOWLEDGE CHECK

4. In a manufacturing entity, the manufactured goods should be inspected by
 - a. Internal audit.
 - b. Quality control.
 - c. Management.
 - d. Purchasing.

Service Revenue Cycle

Service revenue cycles are very similar to the manufacturing revenue cycle addressed previously. The job-cost method of accounting is generally used and also a work-in-process account is established to record client charges. However, a major distinction between a manufacturing and a service entity is that typically in the service revenue cycle the “raw materials” are usually not significant. For example, consider a smaller CPA firm that provides tax services. The major cost to the client is the labor charge. Typically, clients are not charged for “raw materials” such as the cost of the paper used, the cost of the ink consumed to print the client tax return, or other office supplies. These “raw materials” are included in an overhead charge which is typically a percentage of the labor charge. The work-in-process account is increased for labor charges and the allocation of overhead. It is relevant to note that some service companies, such as a doctor’s office, might consider raw materials such as flu vaccine significant. If this is the case, then the cost of the raw materials used is posted to work in process.

Also similar to the manufacturing revenue cycle, budgets are established for the service sector. A CPA firm will budget time by each phase of the audit. A dentist’s office, in order to schedule patients, budgets a standard amount of time to be spent on cleaning teeth, filling cavities, and performing root canals. A yard maintenance service has a time budget for mowing lawns and performing cleanup work. Similar to the manufacturing entity, variances of budgeted from actual time should be investigated by appropriate supervisory personnel.

SERVICE REVENUE CYCLE

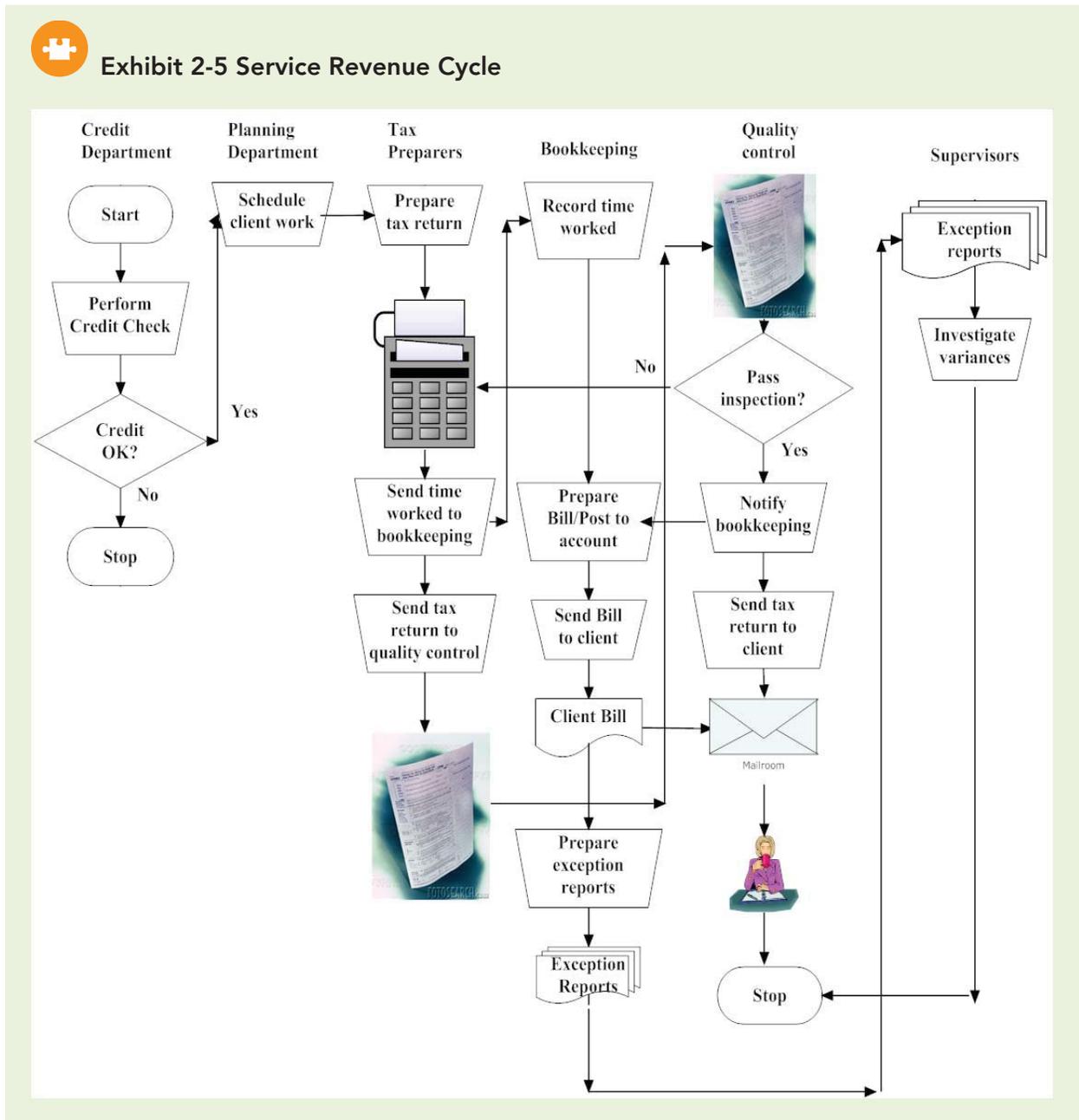
This section will illustrate the typical service revenue cycle. The service entity is a CPA firm that only provides tax preparation services.

The CPA firm will review a client’s background before deciding whether to accept the client or not. Part of this review will include a credit check because typically the CPA firm will extend credit to the client. (Payment for services is expected after the returns are provided to the client.) Because the tax preparation business is highly competitive, the CPA firm will bill the client based upon the number and types of tax returns and schedules that were prepared. There are different rates for different returns and schedules. For example, a simple individual tax return would be billed at a standard \$200.00. If this return contained a Schedule A, then the client would be billed an additional \$50.00 for this schedule, or a total of \$250.00.

Upon acceptance of the client, a file is established to retain documentation of work performed and information provided by the client to enable the CPA to prepare the tax return. Additionally, a work-in-process account is established for the client. An estimate of the time it will take to complete the client’s tax return is also prepared and entered into a master planning document so that the work can be scheduled and assigned to preparers. This time estimate is calculated by taking the number of tax schedules to be prepared times a standard allowed time for each tax schedule. The work-in-process account is debited (increased) by the preparer charging the actual time worked times a rate that includes overhead. The work-in-process account is credited (decreased) when the account is billed. As mentioned previously, because the tax return preparation business is highly competitive, the CPA firm will bill the clients based upon a rate for each return and schedule prepared. The work-in-process account is credited by this amount. The difference between the amount charged to work in process and the amount relieved from work in process by billing the client is a variance that will be investigated by supervisory personnel (to determine if the profit margin is as expected).

The preparers will assemble the client's information and use a tax software program to facilitate the tax return preparation process. When the tax return is completed, the tax preparer's work will be reviewed by another independent preparer as part of the firm's quality-control process. After the tax return has passed the review, the return is sent to the client and accounts receivable is notified that the client should be billed.

A flowchart of this process is presented in exhibit 2-5.



INTERNAL CONTROLS IN A SERVICE REVENUE CYCLE

There are several controls in this service revenue cycle. In particular, segregation of duties is achieved by the CPA firm having separated the following functions:

- **Authorization of the transaction** – Before a client’s tax return is prepared, the client’s background is investigated. This investigation includes a review of the client’s credit. No work will be initiated unless the firm believes the client has the ability to pay for services that will be rendered.
- **Access to assets** – The major assets that the CPA firm has are its human capital, computers, and tax preparation software. The CPA firm retains its personnel by paying competitive salaries and maintaining a pleasant work environment. The CPA firm’s computers contain all of the client’s personal information in an electronic format. The CPA firm can prevent inappropriate access to this data by requiring that it be both password protected and encrypted. The tax preparation software is usually monitored by the vendor. Whenever the CPA firm connects to the Internet, the software will automatically communicate with the software vendor to provide assurance that the software is properly licensed and installed on an authorized computer. Manufacturer updates can also be provided via the Internet.
- **Bookkeeping** – The bookkeeping function is performed by an independent department.
- **Independent reconciliation** – A separate quality control function provides assurance that the tax returns are properly prepared. Additionally, a supervisor will provide assurance that variances of standard time allotted from actual are adequately investigated.

Thus the CPA firm in this example has established an adequate system of internal controls by separating the duties of authorization of transactions, access to assets, bookkeeping, and independent reconciliation.

Errors and Controls

Many of the errors that occur in a manufacturing revenue cycle due to human error can also occur in a service revenue cycle. In the preceding CPA firm example, a tax preparer might charge time to the wrong client—similar to a laborer in the factory charging time to the wrong job. In the manufacturing example, engineers could have designed a product that contains flaws. In the tax return example, the CPA firm might have inadvertently downloaded tax software that contains a virus or errors. The billing rate that is charged to a particular client includes a portion for overhead. The overhead calculation might have been incorrect.

The controls to prevent these and other errors are, again, similar to the preventative controls discussed in the manufacturing revenue cycle. For example, a supervisor’s review of tax return preparers’ time charges before the clients are billed will help provide assurance that actual time charges are recorded properly. Before software is downloaded from a software vendor’s website and made operational, controls should be in place to provide assurance that the CPA is at the valid vendor’s website and not an imposter and that the software is scanned for viruses before it is placed on a live, operational system.

Fraud

There are several ways fraud can occur in this system. One involves misuse of assets.

Typically, many tax preparers will take the CPA firm’s personal computer and a client’s paperwork home to prepare tax returns. If these preparers used the firm’s software to prepare tax returns for their own clients, they would be using the firm’s resources (computer and tax software) for inappropriate purposes. Many CPA firms have policies prohibiting employee “moonlighting.”

How could this fraud be detected? Oftentimes there are multiple controls available to mitigate risk and this situation is no different.

One control is that all clients must be set up (for example, populated into a client database) and assigned account numbers before the tax software can be used for a particular client. This control would be performed by an employee other than tax preparation personnel after approval by an appropriate supervisor.

Another method would be for the firm to install key logging software on all of the firm's computers. Whenever a firm's computer is connected to the firm's internal network, a report can be produced of all keystrokes made by the tax return preparer. An analysis of the key logging report would reveal that the employee was entering name, address, and other information into tax return programs for persons who were not the firm's clients.

CONTROL MATRIX

An example of a control matrix that lists several controls present in service revenue transaction cycle is presented in exhibit 2-6. Note that one control can achieve multiple objectives and assertions regarding the service revenue transaction cycle.

 Exhibit 2-6 Service Revenue Cycle Control Matrix					
Objectives					
	Products are made for valid customers (occurrence)	All transactions are recorded (completeness)	All client costs are at the correct amount (accuracy)	All costs are recorded in the proper period (cutoff)	All costs are charged to the correct client (classification)
Control Activities					
Clients' backgrounds are investigated	X				
A standard time budget is established by type of return or schedule			X		X



Exhibit 2-6 Service Revenue Cycle Control Matrix (continued)

Objectives

	Products are made for valid customers (occurrence)	All transactions are recorded (completeness)	All client costs are at the correct amount (accuracy)	All costs are recorded in the proper period (cutoff)	All costs are charged to the correct client (classification)
Accounts receivable is notified when the return or schedule passes review		X		X	
Individual accounts are reviewed before they are billed		X	X	X	X

Summary

Three different types of revenue cycles were addressed to illustrate the standard types of internal controls that should exist in the retail, manufacturing, and service industries. Examples of “what can go wrong” were presented for each cycle together with suggestions to detect or prevent errors and irregularities. Additionally, examples of control matrices were provided that showed that often one control will achieve multiple control objectives. Finally, the financial statement assertions that relate to transaction cycles were highlighted. These assertions are occurrence, completeness, accuracy, cutoff, and classification.

Practice Question

1. What are the five financial statement assertions management makes about classes of transactions and events?

Case Study

Read the following case and answer the questions at the end of the case.

Miller's, Inc. owns a chain of over two hundred movie theaters located throughout the United States and Canada. The chain shows current movie releases at all locations. Tickets are sold in various ways, including

- a. Over the Internet.
- b. At theater ticket booths, including cash, credit, and debit card sales.
- c. Through ticket machines located at the theaters, which also accept cash, credit, and debit sales.

This case will focus on cash sales made at a ticket booth.

A customer who wishes to purchase tickets at a theater ticket booth will request a certain number of tickets. Additionally, the customer will state whether he or she and others in his or her party meet the age requirements for a discounted ticket. A discount is provided to customers who are either older than 55 or younger than 16 for every day of the week. If the individual does not appear to meet the age requirement, the cashier will not ask for proof of age as it is believed that this request might be insulting to the customer and adversely impact future sales. Corporate management believes that, if the customer is lying, the difference in the sales price of a full price versus a discount ticket (the difference is \$1.50) will be recovered by sales at the concession stand.¹

The price of a movie ticket also varies as to the time of day and the day of the week. An early afternoon showing (matinee) is priced lower than the late afternoon and evening performances. Additionally, movies that are shown on Monday, Tuesday, Wednesday, and Thursday (bargain days) are at a lower price than the Friday, Saturday, and Sunday showings. The difference in price between a matinee showing and an afternoon or evening performance and movies shown on bargain days is also \$1.50.

The customer will pay the theater cashier cash for the tickets and the cashier will issue the customer the appropriate number of sequentially numbered tickets. Note that the tickets do not indicate whether they were discounted due to age. However, the tickets do have the date and time of showing for which they are valid printed on them when they are issued.

Also, the register that records the sale will display the total sales price to the customer.

Upon purchasing the ticket, the customer will take the ticket to a ticket taker, who will then tear the ticket in half and give the customer the portion of the ticket that contains both the name of the movie and the date and time of showing (this ticket stub is the customer's receipt and proof of payment for the cash purchase). The customer is then admitted to the theater.

The cashier, at the start of each day, will obtain a roll of sequentially numbered tickets from the theater manager. The theater manager will record the ticket number that is at the start of the roll of tickets. The cashier will place the tickets into a ticket dispensing machine that is located at the ticket booth. At the end of the day, the cashier will count and record all the cash received, the debit and credit card sales, and the last ticket number issued. The roll of tickets, cash, and credit and debit card information is returned to the theater manager each evening. The theater manager

¹Movie theaters typically make a significant profit from concession sales.

will compare the recorded last ticket number issued and determine whether it is the next number lower than the first ticket that is left on the roll. For example, if the last ticket number issued was 9724, then the first ticket left on the roll should be 9725.

The theater manager will then perform an overall reconciliation of the sales with tickets issued. The theater's IT system provides the ticket manager with a daily report of tickets that were issued for each performance for reconciliation purposes and to determine royalties that should be paid to the movie companies. The manager will obtain the ticket sales on the daily report and compare this number with the number of tickets that were sold as indicated by reconciling the tickets sold on the ticket roll. For example, if the first ticket issued for the day was 8042 and the first number on the roll that is returned to the theater manager at the end of the day is 9000, then the total ticket sales for the day would be 958 (9,000 – 8,042). The theater manager would then multiply 958 times the average ticket price (depending upon the day of the week, this number would vary, but for this example we will use \$9.00) and estimate that total ticket sales for the day from the ticket booth would be \$8,622 (958 × \$9.00). This rough calculation does not take into account discounted tickets or time of showing (matinee versus late afternoon or evening). If the sales amount appears reasonable and within an allowable range of the estimate, say, plus or minus \$100 (\$8,522 to \$8,722), then the manager would believe that sales were recorded properly.

If the recorded sales were outside of a tolerable range from calculated expectations for the day's total sales, then the theater manager would investigate the reason for the variance being larger than expected. For example, the theater manager would expand his or her investigation by disaggregating the total variance from expectations by time of day to isolate the variance. If there were a large variance for a particular day, then the theater manager would disaggregate the data by multiplying the average ticket price for matinee performances times the numbers of tickets sold for that time period and adding the total sales for the matinee performance to the total sales estimated for afternoon or evening performance (number of tickets sold for that time period times an average sales price). The theater manager would then compare this more precise calculation to the daily sales total for all performances provided by the ticket booth cashier. If this variance were still large, then the theater manager might continue to disaggregate the daily sales total not only by time of performance, but by a particular showing, or by employees who were performing ticket-booth cashier functions. Other variables could be used to disaggregate the day's total sales to highlight the reason for the variance.

After reconciling the day's sales and, if necessary, investigating reasons for large variances from the expected day's sales, the theater manager would make the daily cash deposit at a bank.

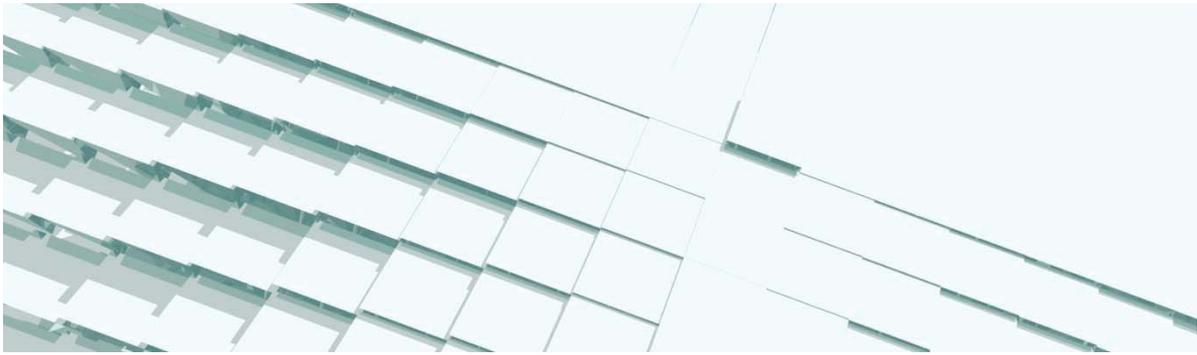
Additionally, corporate headquarters would review the daily sales report and perform a calculation similar to the theater manager's. Additionally, the corporate office would access the company's bank account on a daily basis to assess if the cash was deposited to the bank.

- a. List some controls contained in this scenario.
- b. List some ways errors and irregularities could occur.
- c. Complete the following control matrix based upon this case:

Miller's, Inc.

Objectives

	Tickets sold are for valid customers (occurrence)	All cash ticket sales transactions are recorded (completeness)	All ticket sales are at the correct amount (accuracy)	All cash ticket sales are recorded in the proper period (cutoff)	All ticket sales are correctly classified (classification)
Control Activities					



Chapter 3

ACCOUNTS RECEIVABLE AND BILLING

LEARNING OBJECTIVES

After completing this chapter, you should be able to do the following:

- Recall the different financial statement assertions appropriate in the billing function for manufacturing, retail, and service entities.
- Recall information contained on different business documents (electronic or paper) and the information's importance in transaction flow.
- Identify controls and relevant financial statement assertions in the accounts receivable and billing cycle.

OVERVIEW

Just as there are a myriad of different types of revenue systems for each of the major types of entities (manufacturing, retail, and service), there are also many varying types of accounts receivable systems. However, all accounts receivable systems have a common objective—to record all amounts due from valid customers and then bill those customers for amounts due. The input to the accounts receivable system also varies according to the type of entity.

A discussion follows of one type of accounts receivable system each for the manufacturing, retail, and service entities.

Manufacturing Entity

A manufacturing entity will accumulate labor, materials, and overhead costs in a work-in-process account. When the goods have been completed and pass a quality-control inspection, then the work-in-process account will be closed into finished goods inventory and the goods will be shipped. The shipping department will forward shipping documents (which includes a copy of the bill of lading, see exhibit 3-2) to the accounts receivable department. The amount due is obtained from either the sales contract or the sales quote [the sales quote is approved by the customer (see exhibit 3-1)].¹ The accounts receivable department will then post the amount due from the customer to the customer's individual subsidiary account receivable. A business sales invoice (see exhibit 3-3) will then be mailed (sometimes on a daily basis). The customer receives and pays the invoice. All subsidiary accounts are added and balanced to the accounts receivable control account on a daily basis by a computer program. A balancing report is produced and distributed to management. If the two totals do not agree with one another, then management will investigate the reason for the discrepancy.

The invoice contains information as to the goods shipped, price of the items, payee, total amount due, and the related customer purchase order number. There are numerous types of invoices. An example of a business sales invoice is provided in exhibit 3-3.

Note that software is available for many types of business forms at <http://office.microsoft.com/en-us/templates/default.aspx>. The examples in exhibits 3-1 to 3-3 and 3-5 were obtained from this site.

SALES DISCOUNTS

The company may provide for a sales discount if the customer makes a prompt payment (such as 2/10, Net 30).^{2, 3} The manufacturing entity would record the 2 percent discount in a separate account called "sales discounts." The sales discount account is reviewed periodically to assess if the discount percentage should be adjusted for early payment in light of current economic conditions and past experience.

¹Sales quotes are also known as "sales orders."

²2/10 net 30 means that the customer will receive a 2 percent discount off the total amount of the bill if the customer pays the invoice within 10 days from the date of the sale. If the customer does not pay within 10 days of the sale, then the full amount is due within 30 days of the date of the sale. Customers should take advantage of the discount as, in this example, the annual percentage rate is 36 percent. Assuming 360 days to a year and 30 days to a month, the percentage rate is calculated as: $[(360/30-10) \times 2]$. Thus, the customer would borrow funds at an annual percentage rate of less than 36 percent, and pay within the 10-day time period, in order to take advantage of the 2 percent sales discount.

³This section assumes that all transactions for the manufacturing company are business to business and not business to consumer. Business to consumer transactions are addressed in the following sections on the retail and service entities.

AGING SCHEDULES

Periodically an aging schedule is prepared (at least monthly) and this report contains all current and delinquent accounts receivable. The amount due from a customer is classified as to the period of time the account is outstanding. This schedule is reviewed by the credit department and other management, and decisions are made about whether to continue to grant credit to existing customers who are delinquent in making payments. Generally a second invoice is sent to delinquent customers, with “past due” stamped in red on the invoice. If the amount past due is material, then a decision could be made to request customers to more formally acknowledge the debt and have them sign a note. Notes are typically interest bearing and also may be secured by the goods that were sold by the manufacturing entity to its customers.

An example of an aging schedule is illustrated in exhibit 3-4. Note that management might ask questions such as the following:

- Why are sales being made currently to Brown and Son and Davis Parts when these companies have balances greater than 90 days old?
- Is there a trend, due to the changing economy, for customers to be slow in paying, as there are several customers with balances over 31 days old? Should credit policies be revised if this slow payment is predicted to be ongoing?
- Why has Vinny’s Vans not made any payments lately?

The aging schedule is also used to estimate bad debt expense and decide which accounts should be written off or submitted to a collection agency (or both) to try to obtain payment. This decision should be made by management and not bookkeeping.

FORMS

Although not clearly evident, a strong control in the accounts receivable and billing system is adequately designed documents and forms.⁴ An adequately designed form should contain information needed for subsequent processing of the transaction. The forms should be numerically sequenced, and someone should account for the numerical sequence of the forms and investigate the reason(s) for any missing forms.

The forms should prompt the user for information. For example, the sales quote form in exhibit 3-1 captures all the needed information to prepare a quote and also serves as input for subsequent transaction processing (for example, which items to produce, when to schedule production in order to meet the promised delivery date, and more). The form also shows who prepared the quote so the customer knows who to contact in case the customer has questions about the quote. There is a line on the form where the customer provides a signature evidencing his or her acceptance of the quote and related terms. This signed document will help resolve any dispute when the goods are delivered (are the delivered goods the same as those which were requested?) and billed (are these goods priced according to the agreement?).

⁴If the system is paperless then the data input screens should request the same information that would be on documents and forms.

The sales quote form in exhibit 3-1 is numerically sequenced. This permits company personnel to account for the forms and investigate the reason why there might be a missing quote. For example, the company might lose business if personnel inadvertently misplaced a quote form and failed to adequately follow up on the order.

Finally, placing the name and logo of the company on the sales quote and other forms permits the customer to know who prepared the quote, the company that they are to pay, and other seemingly obvious information that would cause problems among the recipients of these forms if this information were not provided.

CASH FLOW

If the manufacturing entity is having cash flow problems or has an opportunity and needs cash to take advantage of it, then accounts receivable could be factored at a bank or financing company to generate the needed cash. If the accounts receivable is sold *without* recourse, then the bank or financing company will assume the risk of bad debts. If the accounts receivable is sold *with* recourse, then the manufacturing entity is liable to the bank or financing company if a customer defaults on the accounts receivable.⁵

The company will receive cash from the bank or financing company in an amount less than the sum of the balances of the factored accounts receivable. The bank or financing company charges a fee for this factoring service and a larger fee is charged if the accounts receivable are factored without recourse as there is greater risk to the bank or financing company than when accounts receivable are factored with recourse.

Additionally, if the accounts receivable are sold with recourse, then the seller has a contingent liability that should be disclosed in the footnotes to the financial statements. If the seller's customers do not pay the bank or financing company the amounts due, then the seller will have to pay the amounts due the bank or the financing company.

The company's financial reporting department reviews all discounted accounts receivable to assess the amount of expected liability, if any. Senior financial management (including those charged with governance) reviews the financial statements to provide assurance that the statements are in accordance with generally accepted accounting principles. Additionally, appropriate personnel sign a representation letter (if the financial statements are audited or if the bank requests it) concerning the compliance of the financial statements with generally accepted accounting principles (GAAP).

⁵The manufacturing entity will most likely have additional sources of financing other than just factoring accounts receivable.

STATEMENTS

Monthly statements are often sent to businesses at the end of the month. These statements list all activity that has occurred in the customer's account including payments, outstanding invoices, and an aging of past-due amounts. The aging of past-due amounts is provided to the customer as a reminder to pay past due amounts. Some businesses will stamp "past due" in red on the statement to further encourage the payment of past-due amounts. The customer should contact a dispute-resolution employee (someone other than sales or accounts receivable personnel) should the customer disagree with the amounts owed. A sample of this type of statement is provided in exhibit 3-5. This statement is known as an open item statement, as all individual invoices that have not been paid in full are listed.

Most retail customers receive a balance-forward statement that lists a balance-forward total amount, current month's transactions, and an ending balance. This is not as practical with businesses because, if there is a disputed invoice, it might be contained in the balance-forward total amount and would therefore be difficult to identify without researching prior balance forward statements that contain the particular invoice being disputed.

FLOWCHART

A flowchart of the billing process is presented in exhibit 3-6.



Exhibit 3-2 Bill of Lading

Date	BILL OF LADING – SHORT FORM – NOT NEGOTIABLE				Page 1 of 1	
SHIP FROM			Bill of Lading Number:			
[Name] [Street Address] [City, ST ZIP Code] SID No.:			BAR CODE SPACE			
SHIP TO			Carrier Name:			
[Name] [Street Address] [City, ST ZIP Code] CID No.:			Trailer number: Serial number(s):			
THIRD PARTY FREIGHT CHARGES BILL TO			SCAC:			
[Name] [Street Address] [City, ST ZIP Code]			Pro Number:			
Special Instructions:			Freight Charge Terms (Freight charges are prepaid unless marked otherwise):			
			Prepaid <input type="checkbox"/> Collect <input type="checkbox"/> 3rd Party <input type="checkbox"/> <input type="checkbox"/> Master bill of lading with attached underlying bills of lading.			
CUSTOMER ORDER INFORMATION						
Customer Order No.	# of Packages	Weight	Pallet/Slip (circle one)		Additional Shipper Information	
			Y	N		
			Y	N		
			Y	N		
			Y	N		
Grand Total						
CARRIER INFORMATION						
Handling Unit		Package			LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	Commodity Description <small>Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. See Section 2(e) of NMFC item 360</small>
						NMFC No.
						Class
<small>Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____."</small>						
COD Amount: \$ _____						
Fee terms: Collect <input type="checkbox"/> Prepaid <input type="checkbox"/> Customer check acceptable <input type="checkbox"/>						
Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14706(c)(1)(A) and (B).						
<small>Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to all applicable state and federal regulations.</small>			<small>The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees.</small>			
Shipper Signature/Date			Trailer Loaded:		Shipper Signature _____	
<small>This is to certify that the above named materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.</small>			<input type="checkbox"/> By shipper <input type="checkbox"/> By driver		Freight Counted: <input type="checkbox"/> By shipper <input type="checkbox"/> By driver/pallets said to contain <input type="checkbox"/> By driver/pieces	
			Carrier Signature/Pickup Date			
					<small>Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.</small>	



Exhibit 3-4 Aging Schedule Example

Customer Name	Total Due	Currently Due	0-30 Days Old	31-60 Days Old	61-90 Days Old	Over 90 Days Old
Benetar Inc.	720	400	300	20	0	0
Brown and Son	1,604	900	0	0	400	304
Crawley	790	750	40	0	0	0
Davis Parts	20,750	404	974	9,222	758	9,392
Jim Bob Inc.	497	0	0	0	0	497
Kar Kleen Inc.	1,206	783	333	90	0	0
Tom's Cars	9,592	9,289	231	72	0	0
Vinny's Vans	2,175	0	1,245	930	0	0
Total Due	37,334	12,526	3,123	10,334	1,158	10,193



Exhibit 3-5 Open Items Statement

YOUR LOGO
HERE

[Your Company Slogan]

STATEMENT

[Your Company Name]
[Street Address], [City, ST ZIP Code]
[Phone] [Fax]
[e-mail]

DATE: _____
STATEMENT # [100]

BILL TO [Name]
[Company Name]
[Street Address]
[City, ST ZIP Code]
[Phone]
Customer ID [ABC12345]

COMMENTS

DATE	DESCRIPTION			BALANCE	AMOUNT
CURRENT	1-30 DAYS PAST DUE	31-60 DAYS PAST DUE	61-90 DAYS PAST DUE	OVER 90 DAYS PAST DUE	AMOUNT DUE

REMITTANCE	
Statement #	100
Date	
Amount Due	
Amount Enclosed	

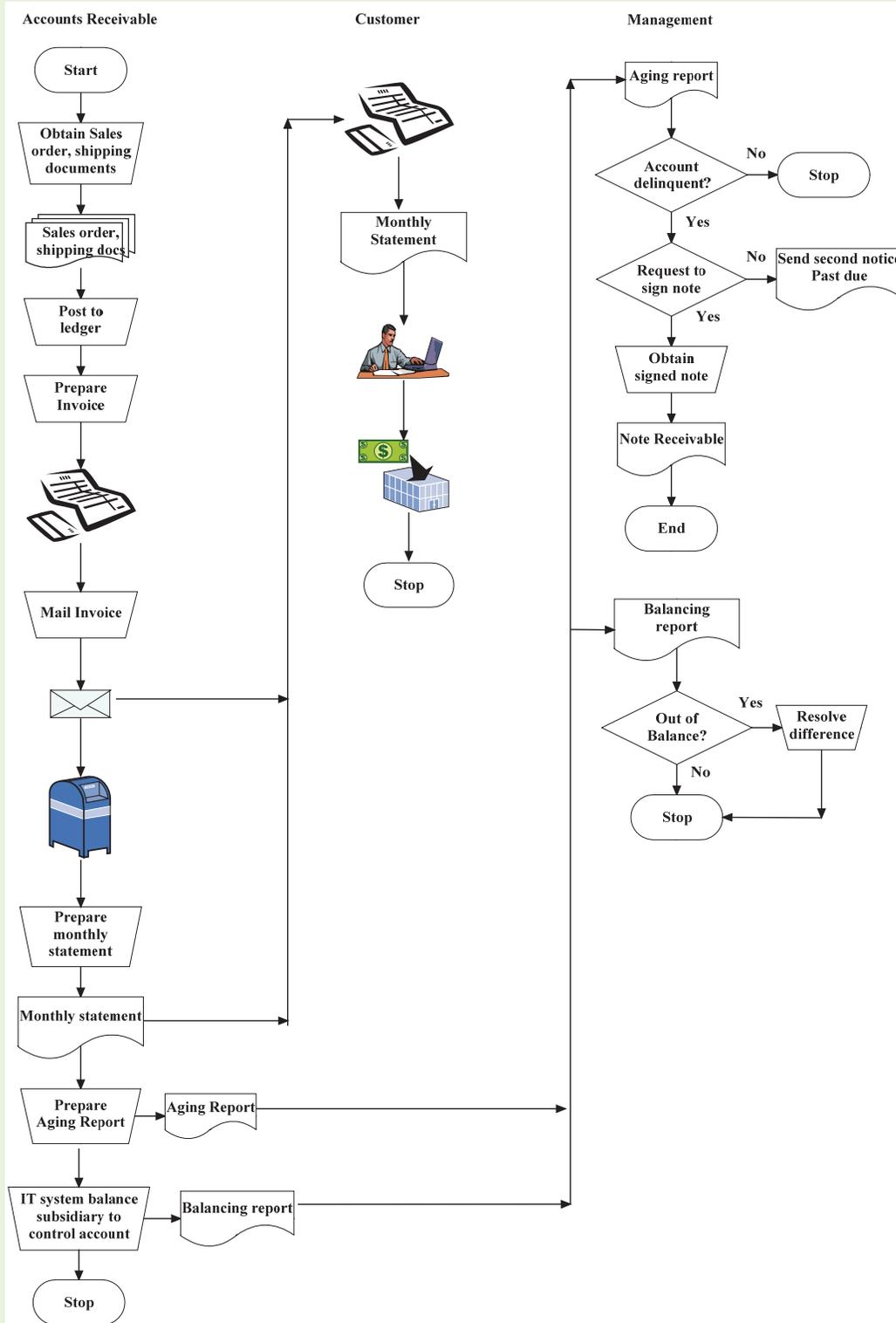
Make all checks payable to [Your Company Name]

If you have questions concerning items on this statement please contact Mr. Murray Turner (internal auditor)

Thank you for your business!



Exhibit 3-6 Billing Process Flowchart



CONTROLS

There are numerous controls in the accounts receivable system discussed previously. First consider the separation of duties (noted in italics). The accounts receivable department performs *bookkeeping* and no other function. The *authorization* for the transaction is documented on a sales quote form that is approved by the customer. The sales quote form originates in the sales department. The *access to assets* (raw materials and finished goods) is restricted to manufacturing employees. The subsidiary accounts are balanced daily with the control account (*independent reconciliation*) and management takes action if the two totals do not agree.

Properly designed forms that are sequentially numbered help ensure that all information concerning a transaction is captured to facilitate subsequent processing of the transaction. The accounting for the numerical sequence of the documents helps provide assurance that transactions are not lost.

Bookkeeping posts transactions to individual accounts receivable and prepares invoices on a timely basis. The balancing of the individual subsidiary accounts receivable to the control account promotes timely detection of an out-of-balance situation.

Accounts are aged and action is taken concerning delinquent and current accounts receivable. This information facilitates decisions such as whether to continue to sell goods to customers with delinquent accounts and therefore minimize possible additional bad debts. Additionally this information will aid decision makers as to whether or not to extend additional credit to customers who promptly pay their accounts. The decision as to whether accounts should be written-off (*authorization*) is made by management, not bookkeeping.

The sales discount policy is reviewed on a periodic basis to assess if, due to current economic conditions, an adjustment should be made to the annualized discount percentage provided for early payment. Management might discover that their annualized discount percentage might be too high (and be providing too generous of an early payment incentive) or too low (and not be competitive with others in the same industry).

The company has a financial reporting department that reviews all factored accounts receivable to ascertain (a) that the information recorded is accurate, (b) whether a footnote is necessary (for example, a footnote may be necessary if there is a contingent liability for accounts receivable that were factored with recourse), and (c) if there is any other information needed within the financial statements to ensure the information provided presents the accounting position fairly. Senior management (including those charged with governance) then reviews the financial statements to provide assurance that they are in accordance with generally accepted accounting principles. Additionally, appropriate members of management make written representations (representation letter) concerning the compliance of the financial statements with generally accepted accounting principles (if the financial statements are audited or if such letter is requested by other individuals).

The company has a policy to try to obtain a signed note from delinquent accounts receivable customers. This will more formally acknowledge the customer's indebtedness to the company. Additionally, the company might obtain a secured interest in the goods that were sold as collateral for the note. If the customer does not make payments on a timely basis then the company would be able to recover some of the defaulted loan amounts by repossessing the collateralized goods.

A monthly statement that is sent to the customer is a negative confirmation of the amount due. In case their customer has questions about any item on the statement, then the customer is referred to the internal auditor, not the bookkeeping department. The bookkeeping department might have made a

posting or other type of error (or be involved in collusion with the customer). Therefore, customer disputes about items on the statement should be referred to someone other than the bookkeeper, and in this case, that person is the internal auditor.

CONTROL MATRIX—ACCOUNTS RECEIVABLE

An example of a control matrix for Accounts Receivable is contained in exhibit 3-7. There are numerous controls in the examples of retail revenue cycle that provide assurance that management's assertions and objectives concerning the financial statements are achieved. Note that sometimes one control will achieve multiple financial statement objectives.

This control matrix includes a categorization by financial statement assertions. AU-C section 315, *Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatements*, lists the following four financial statement assertions made by management about account balances for the period under audit:

- **Existence.** Assets, liabilities, and equity interests exist.
- **Rights and obligations.** The entity holds or controls the rights to assets, and liabilities are the obligations of the entity.
- **Completeness.** All assets, liabilities, and equity interests that should have been recorded have been recorded.
- **Valuation and allocation.** Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are appropriately recorded.

Management also makes the following assertions concerning presentation and disclosure:

- **Occurrence and rights and obligations.** Disclosed events and transactions have occurred and pertain to the entity.
- **Completeness.** All disclosures that should have been included in the financial statements have been included.
- **Classification and understandability.** Financial information is appropriately presented and described, and disclosures are clearly expressed.
- **Accuracy and valuation.** Financial and other information is disclosed fairly and at appropriate amounts.

A control matrix for the presentation and disclosure assertions for accounts receivable is presented in exhibit 3-8. Note that one control can achieve multiple assertions.



Exhibit 3-7 Accounts Receivable

Objectives

	Accounts receivable exists (existence)	Accounts receivable are owned by the company (rights)	All accounts receivable are recorded (completeness)	All accounts receivable are recorded at the appropriate amounts (valuation)
Control Activities				
Accounting for the numerical sequence of forms			X	
Use of a quote form signed by the customer	X		X	
Management review of subsidiary to control account balancing report			X	X
Independent review of recorded receivables	X	X		X
Management approval of accounts receivable	X	X	X	X



Exhibit 3-8 Accounts Receivable

Presentation and Disclosure Objectives

	Disclosed events have occurred and pertain to the entity (occurrence and rights and obligations)	All disclosures that should have been included in the financial statements have been included (completeness)	Financial information is appropriately presented and described and disclosures are clearly expressed (classification and understandability)	Financial and other information are disclosed fairly and at appropriate amounts (accuracy and valuation)
Control Activities				
The financial reporting department reviews disclosures for discounted accounts receivable	X		X	X
Senior financial management reviews financial statements for compliance with GAAP			X	X
Senior financial management signs a representation letter that financial statements comply with GAAP		X	X	X

KNOWLEDGE CHECK

1. Common carrier information is contained on
 - a. A sales quote form.
 - b. A bill of lading.
 - c. An open items statement.
 - d. An aging schedule.
2. Businesses generally pay vendors by
 - a. Invoice.
 - b. Statement.
 - c. Sales order.
 - d. Bill of lading.
3. An assertion concerning account balances is
 - a. Rights and obligations.
 - b. Classification and understandability.
 - c. Accuracy.
 - d. Occurrence.

Retail Entity

A credit sale in a retail environment is different from a credit sale in a manufacturing environment as the retail merchant does not always expect the account balance to be paid within a month. The retail entity makes sales to individual customers, whereas the manufacturing entity generally makes sales to other businesses. A retail store typically makes an installment sale. This means that the customer can make payments over time based upon the terms in the merchant's credit agreement that was signed by the customer. The merchant also typically earns interest on the unpaid balance of the account. Another distinction between retail and manufacturing accounts receivable is that a retail customer is usually not granted a discount for early payment.

A retail entity usually accepts two types of charge cards—its own or a universally accepted one such as VISA or MasterCard. If the customer uses VISA or MasterCard, then the merchant will typically remit a percentage of the sales amount (typically 2 percent) to the charge card company. The merchant will not have to pay that percentage if the customer uses the store's credit card – which can be a significant cost savings. In addition, the retail store will earn the finance charges on its own credit card sales. If the customer misses a payment, then oftentimes the merchant will also charge a fixed fee as a penalty. This fee is in addition to the finance charge.

The retail store will not have collection problems if the customer uses MasterCard or VISA, as the amount the customer charged is paid to the merchant by the charge card company (similar to factoring accounts receivable without recourse in a manufacturing entity). The retail store might have collection problems if the customer uses the retail store's credit card and the retail store has extended credit to customers with questionable credit or if customers with good credit face difficult times.

Customers are sent monthly statements (typically a balance-forward statement) which contain the customer's account number, amount due, and other relevant information. A remittance advice (usually the tear-off portion at the bottom of the monthly statement) contains, in addition to other information, the name of the payee and space for the customer to write in the amount remitted. The remittance advice is a turnaround document which accompanies the payment.⁶ It will have preprinted on it an optical character recognition (OCR) coding of the retail entity's customer account number and other remittance information that can be read by the entity's OCR reader. The OCR reader will transcribe the OCR characters into an electronic format that can be read by the IT processing system. This control prevents the data-entry department from making transcription errors such as entering the incorrect account number or other information into the IT system. A return envelope with the payee's preprinted address is often provided to prevent errors caused by the customer (payee) writing an incorrect or illegible address on the payment envelope.

CONTROLS

Controls in a retail entity are similar to those in a manufacturing entity. A customer's credit background is reviewed before a credit limit is established. Aged accounts receivable reports are reviewed periodically as a basis for changing a particular customer's credit or writing off an account. Monthly statements are sent

⁶ A turnaround document is output from the IT system that is sent from the entity to a third party and then sent back to the company as input to the IT system.

as a type of negative confirmation as to the amount owed by the customer. Dispute resolutions are administered by a separate group within the company.

It should be noted that many retail entities use cycle billing when they mail monthly statements. For example, one-fourth of the accounts receivable accounts will be billed each week. This cycle-billing process evenly distributes both the work and cash flow throughout the month. Errors that might occur due to fatigue caused by billing all accounts at the end of the month can be avoided.

One risk faced by the retail industry is that a perpetrator might steal a charge card or number and use it to unlawfully obtain goods and services. Several controls are used by the charge card industry and retail stores that issue their own charge card to diminish this type of fraud. First, many customers are profiled by the charge card companies. For example, have you or a friend ever been contacted by a charge card company inquiring as to whether or not you made a certain charge? If so this is due to the fact that the credit card issuer has used data mining or other techniques to profile your spending habits. If there is a charge that is outside of your normal spending parameters, it will raise a red flag, and the credit card issuer will perform additional procedures to verify the charge—such as contacting the valid credit card holder.

Another control to guard against fraudulent charges used by some retail stores is to ask customers to produce a government-issued ID (such as a driver's license or passport). Furthermore, some credit card companies require the customer to enter the billing address zip code in order to validate the customer.

Because the accounts receivable controls for both retail and manufacturing entities are very similar, a separate retail-entity control matrix is not presented.

KNOWLEDGE CHECK

4. Aged accounts receivable reports are generally prepared
 - a. Monthly.
 - b. Daily.
 - c. Quarterly.
 - d. Weekly.

Service Entity

There are numerous types of service entities—each with many types of accounting systems. Many service entities, such as CPA or law firms, will charge clients based upon hours worked. The per-hour fee should cover the professional’s salary and overhead costs. Other service entities, such as medical practices, will charge a fee to see a particular doctor and then also have separate fees based upon the type of service provided (blood tests, flu shots, and more) Other service entities, such as faith-based organizations or nonprofit entities, do not charge for services but rely upon the donations of benefactors. This section will review how services are billed in service entities, using a lawn-maintenance entity as an example.

The lawn-maintenance service entity will have a contract with their clients to perform services at a set fee for each type of service. For example, the lawn service might fertilize the customer’s lawn six times a year, provide mulch twice a year, and mow the lawn twice monthly. The lawn service will maintain a schedule of when each service is to be provided to a particular customer. The employee who provides the service has a numerically sequenced charge ticket that has an original and a copy for each recorded charge. For example, the employee might fertilize the lawn. The employee will complete the two part charge ticket form and leave the original on the customer’s door. Additionally, the company will put a removable sign in the customer’s yard indicating that the lawn was fertilized that same day. The charge form will contain the name of the lawn service company, service provided, amount charged, remittance address, payee name, and other pertinent information.

The employee will give copies of all charge tickets used each day to the accounts receivable clerk, who will then post charges to each customer’s account receivable.

CONTROLS

Controls that exist in both the manufacturing and retail entities are also present in the service entity and are not repeated extensively here. However, suggested controls that are unique to this particular service entity are addressed.

The controls should include the accounting for the numerical sequence of charge tickets by an independent employee (such as the receptionist) to provide assurance that all charge tickets are submitted to the accounts receivable department. Additionally, the lawn service company has a schedule of what services are to be performed and when they are to be performed. Management should compare this schedule with actual services performed by each employee as well as each employee’s time card. This management-review control should prevent the employees from acquiring their own customers and performing services for these customers on company time or using company resources (for example, fertilizer, mowing equipment, and so on).

Another control would be to have Global Positioning System (GPS) monitors installed on the company’s vehicles. This control allows management to ascertain that the vehicles only went to customer locations and that there were no unauthorized stops.⁷

⁷ Some companies also install cameras on the vehicles as an additional preventive control against the employee performing unauthorized services.

Management can also perform analytical review procedures, such as performing an overall calculation of expected supplies expense, and compare this amount with actual supplies expense to discern if supplies are being stolen.

Because the accounts receivable controls for both service and manufacturing entities are very similar, a separate service entity control matrix is not presented.

Summary

This chapter addressed control issues over accounts receivable and billing for a variety of entities (manufacturing, retail, and service). The billing process and accumulation of charges to be billed in accounts receivable varies between and within each type of entity; however, certain controls should be commonplace between all of these entities and are addressed as follows.

First, numerical sequencing of documents and accounting for the numerical sequence of documents (such as charge tickets, sales quotes, and so on) should provide assurance that all sales are recorded. Properly designed forms provide assurance that all information is obtained to facilitate subsequent processing of the transaction. Review of charges by management and use of budgets and contracts help provide assurance that all amounts charged are at the proper amount and will prevent potential disputes between the customers and the business. Accounts receivable subsidiary accounts are maintained for each customer to facilitate prompt dispute resolution concerning payments and charges (these subsidiary accounts show date of payment, date and reference number of invoice, and more). Accounts receivable are aged and reviewed by management to aid in decision making concerning writing off delinquent accounts or changing credit policies. Finally, there should be segregation of duties between access to assets, independent reconciliation, authorization of transaction, and bookkeeping in order to help prevent error and fraud.

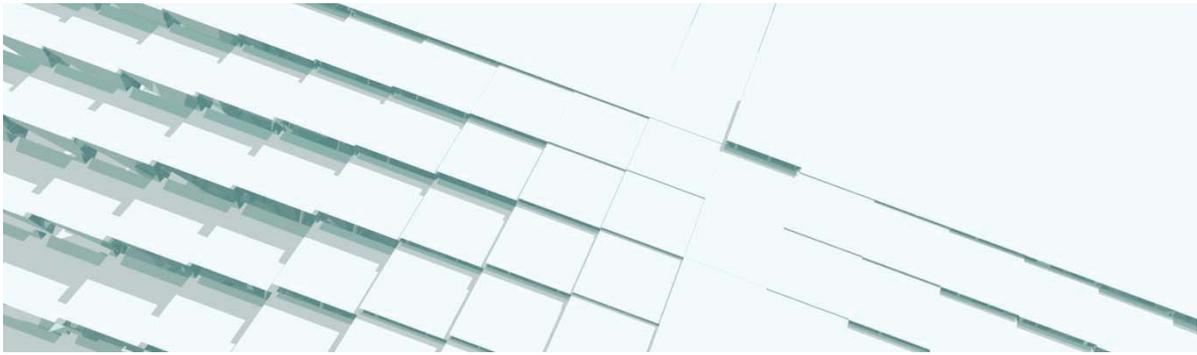
Practice Questions

1. The following is based upon an actual system.

Blomquist, Inc. manufactures eyeglasses for optometrists. Sales orders are obtained directly from optometrists' offices over the telephone and are written on a preprinted form that contains the optometrist's name, customer name, and prescription information. Over one thousand orders are received daily. The sales order form information is sent to the IT department for data entry and subsequent processing. After the order is entered into the system, the original order form is discarded. There is no numerical sequencing of the order forms.

Please address errors or irregularities that could occur in this system.

2. What are the financial statement assertions management makes concerning account balances?
3. What are the financial statement assertions management makes concerning presentation and disclosure?



Chapter 4

CASH RECEIPTS

LEARNING OBJECTIVES

After completing this chapter, you should be able to do the following:

- Recognize the system flow for the cash receipts process.
- Identify controls over the cash receipts process.
- Recognize the various forms (electronic or paper) that are used in the cash receipts process.

OVERVIEW

The cash receipts process in the manufacturing, retail, and service entities is similar in that all entities have the objective of recording and depositing all cash receipts in a timely manner. Also, cash receipts should be recorded in the cash receipts journal and posted to the accounts receivable subsidiary and control accounts in a timely manner.

A typical cash receipts processing system will be described in the next section and variations of this system will be addressed in the remainder of the chapter.

Typical Cash Receipts System

The following describes a typical cash receipts process:

The customer, upon receipt of an invoice or monthly statement from an entity, places a remittance advice (torn from the invoice or statement) with the payment (check) in a pre-addressed envelope that contains the entity's post office box address. This particular post office box address is solely for all cash payments on accounts receivable. An authorized designated company employee (courier) retrieves all mail from the post office box and delivers the cash receipts mail to the mail receipts department.

All mail is opened by two mail-receipts clerks in the mail receipts department. A comparison is made between the amount contained on the remittance advice and the amount of the check. A three-part list is made of any differences (exceptions list). The checks are stamped "for deposit only" to the name of the company. The mail-receipts clerks also prepare a three-part list of all mail receipts (includes customer name, account number, amount of check, and number of checks). The amounts on the checks, the remittance advices, mail receipts list, and exceptions list are totaled. The remittance advices, one part of the exceptions list, and one part of the mail receipts list are forwarded to the subsidiary accounts receivable clerk for posting. The checks, one part of the exceptions list, and one copy of the mail receipts list are sent to the cashier for preparation of a daily deposit. The mail receipts department retains a copy of the mail receipts list and the exceptions list.

The cashier prepares the deposit slip and takes the deposit to the bank. The bank will accept the deposit and provide the cashier with a duplicate deposit ticket that has been validated by a bank teller with the teller's stamp. The bank will have received instructions not to permit the corporate account to have employees use the "less cash" portion of the deposit ticket ("less cash" means the bank will provide cash back to the person making the deposit and the overall deposit will be reduced by the amount entered in the "less cash" portion of the deposit ticket).

The bank account is reconciled monthly by an employee who is not assigned to the bookkeeping, cashier, or mail receipts departments. This person will notify management if the bank account does not reconcile.¹

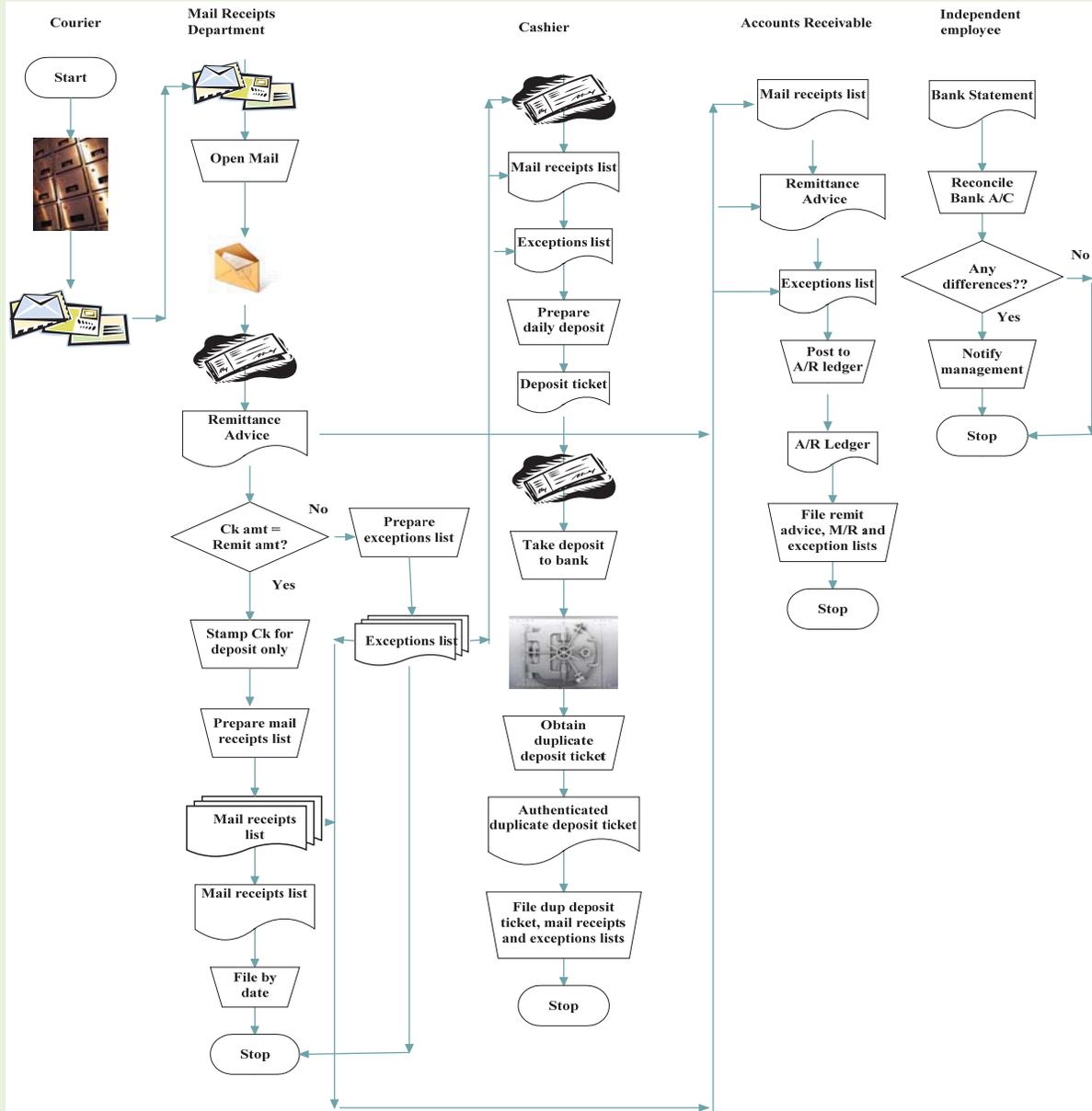
Internal audit will reconcile totals on the mail receipts list with the totals posted to the subsidiary accounts receivable, the amounts on the bank duplicate deposit ticket, and the deposit amounts (noting date of deposit) contained on the monthly bank statement.

A flowchart of this process is contained in exhibit 4-1. The functions performed by internal audit are not depicted in the flowchart.

¹Bank accounts should be reconciled as often as needed based upon a risk assessment. The entity may want to reconcile bank accounts more often—such as daily or weekly based upon the risk assessment.



Exhibit 4-1 Cash Receipts Flowchart



CONTROLS

There are numerous controls in this typical accounts receivable system. First there is adequate segregation of duties. Access to assets (cash) is limited to employees who do not perform bookkeeping, independent reconciliation, or authorization functions. These employees include the courier, the mail-receipts clerks, and the cashier. Bookkeeping is performed solely by the accounts receivable department. Independent reconciliation of the bank account is performed by an independent employee—such as the owner or

manager (in a smaller entity) or a receptionist. Additionally, another independent employee—again, such as the owner or manager (in a smaller entity) or a receptionist—reconciles daily the cash received, with the amount that was posted to the books, the amount deposited in the bank, and the deposit amounts on the bank statement.

There are numerous other controls. Cash receipts mail is sent to a separate post office box and therefore is not included with the company's general mail. If cash receipts mail were included with the general mail, then there is a risk that the person sorting the mail could steal a few checks. These checks would never be recorded by the mail receipts department, and subsequently, accounts receivable would not credit the customers' accounts. This misappropriation of assets would not be discovered until those customers received a statement indicating that the amounts they paid were still considered outstanding.

Another control is that the cash receipts mail is opened by two individuals. These individuals would have to collude with one another in order to steal checks. However, as noted previously, their fraud would be detected when the customers were sent their monthly statements.

Customers are requested to remit their payments on account by check, not cash. If the mail-receipts clerks were to receive a payment in cash, then they could collude and steal the cash. If the customer were to complain when they received their monthly statement that certain amounts on the statement had already been paid, then the mail-receipts clerks could state that the company never received the funds. If a customer paid by check, then the check would have been processed by the bank and the cancelled check would serve as proof of payment.

The customer provides a remittance advice in a preaddressed envelope. The remittance advice contains the customer's account number and other relevant information in a format that can be read by the company's IT system. This should prevent transcription errors. Furnishing a pre-addressed envelope also helps provide assurance that the payment will be sent to the company's cash receipts post office box.

The mail receipts department establishes control totals for dollar amounts and number of checks at the point of origination, which can be used for subsequent reconciliation by accounts receivable, the cashier, and internal audit. Additionally, an exceptions list is prepared in case the amount of the check varies from the amount entered on the remittance advice. This will facilitate the reconciliation of the credit entries to accounts receivable as accounts receivable will post the amounts that were actually paid, not the amounts written on the remittance advices. Therefore, the sum of all of the remittance advices, when adjusted for amounts contained on the exceptions list, should equal the total credit to accounts receivable.

The cashier obtains a duplicate deposit ticket that has been authenticated by the bank. This serves as evidence that the cashier deposited all of the checks at the bank for a particular day. Additionally, the cashier is not allowed to receive "cash back" on funds deposited at the bank.

The bank account is reconciled monthly by an independent employee. Any exceptions are promptly reported to management.

Internal audit will reconcile the control totals established by the mail receipts clerk with the postings to accounts receivable and the amounts deposited to the bank. The internal auditor will also compare the date of the deposit on the bank statement with the dates on the duplicate deposit ticket and the mail receipts list. If the dates do not agree, then there is a possibility that the cashier has lapped a deposit. The cashier could steal one day's deposit and make up for it with subsequent day's deposits.

An example of a control matrix for the cash account balance is provided in exhibit 4-2 and for the cash receipts process in exhibit 4-3. Note that one control can achieve multiple objectives (assertions).

KNOWLEDGE CHECK

1. Cash receipts mail should be opened by
 - a. The accounts receivable bookkeepers.
 - b. Two mail-receipts clerks.
 - c. The internal auditor(s).
 - d. The cashier.
2. Checks are stamped “for deposit only” by
 - a. The mail-receipts personnel.
 - b. The cashier.
 - c. The credit department.
 - d. The accounts receivable clerk.
3. A bank reconciliation should be performed by
 - a. The cashier.
 - b. An independent employee.
 - c. The internal auditor(s).
 - d. The mail-receipts clerks.

Variations of Mail Receipts

Many companies do not have their cash receipts sent directly to their own post office box. Rather, the post office box that is provided on the preaddressed envelope is actually a bank address. The company's customers' cash payments are sent directly to the bank's post office box (often called a lock box). The bank will deposit the checks to the company's account and then send the company a list of customer account numbers and the amount remitted by each customer. As the mail receipts process is outsourced to a bank, then the company does not need to employ a courier, two mail-receipts clerks, or a cashier.

Additionally, if the bank provides the mail receipts list in an electronic format that is compatible with the company's IT system, then the costs associated with reading the optical character recognition (OCR) information on the remittance advice is avoided (processing time, personnel, equipment, and so on).

The company can still receive checks at its own post office box, but use a different method to make deposits. Some banks are accepting images of the checks submitted by customers instead of traditional checks (remote deposit capture). The company can scan the checks that are remitted by customers and transmit them electronically to the bank. The bank will then record the deposit. The bank's customers need not leave their offices in order to make their daily deposits.²

²See the following website for additional information on remote deposit capture:
www.remotedepositcapture.com/overview/rdc.overview.aspx.



Exhibit 4-2 Cash Receipts Objectives: Account Balance

	Cash exists (existence)	Cash is owned by the company (rights)	All cash receipts are recorded (completeness)	All cash receipts are recorded at the appropriate amounts (valuation and allocation)
Control Activities				
The bank account is reconciled by an independent person	X	X	X	
Independent reconciliation by internal audit of control totals	X		X	
Management review of bank reconciliations that do not balance	X	X	X	
All cash receipts are by check		X	X	
Mail is opened by two mail- receipts clerks	X	X	X	X
Mail is sent to a separate post office box	X	X	X	



Exhibit 4-3 Cash Receipts

Objectives: Transaction Processing

	Cash receipts are from valid accounts (occurrence)	All cash receipts have been recorded (completeness)	All cash receipts are at the correct amount (accuracy)	All accounts receipts are recorded in the proper period (cutoff)	All cash receipts are posted to the correct account
Control Activities					
Remittance advices accompany the mail receipts	X				X
Control totals are established for all mail receipts		X	X	X	
Internal audit reconciles control totals between departments		X	X	X	X
Internal audit reviews bank statement for agreement of date of deposit		X	X	X	
Differences between amounts on checks and remittance advices are listed for balancing		X	X		

Also, instead of using a scanner to create an electronic image of a check that is then subsequently transmitted to the bank, some banks are allowing customers to take a picture of the check with their iPhone and then send that image to the bank for deposit.

There are other variations of processing mail receipts including electronic funds transfers (EFT) and electronic data interchange (EDI) whereby payments are received from customers in an electronic format and the payments leave an electronic, rather than a paper audit trail.

KNOWLEDGE CHECK

4. If a company uses a lockbox system to process mail receipts, then cash receipts mail is sent to
 - a. The bank's post office box.
 - b. The company's post office box.
 - c. The vendor's mailbox.
 - d. The company's physical location mailbox.

Controls Over Cash Receipts Received at the Entity

Sometimes customers make payment on their accounts at the company's place of business. For example, customers can make payments on their retail store credit card account at the retail store. If the customer pays by cash or check, then the retail store clerk should provide the customer with a receipt of the amount paid. This provides assurance that the retail store clerk recorded the proper amount and credited the amount to the correct account.

For customers who want to make payments after close of business, many retail stores and other businesses offer night depositories. A night depository typically contains a slot on the outside of the building where customers can insert their payments. The payment then falls into a locked safe.

Cash Receipts at a Not-for-Profit Entity—A Faith-Based Organization

Another example of cash receipts are those that occur at faith-based organizations. Many faith-based organizations receive contributions on a weekly basis by either check or cash. The control that many faith-based organizations have is that members are provided with envelopes in which to place their donations. Often these envelopes have the member's name and address printed on the envelope and a space for the member to write in the amount of the donation. However, not all who attend a particular service will have an envelope and will make a donation by check or cash.

Many faith-based organizations have the collection performed by senior members who distribute a basket in which members place their donations. This basket-passing is performed in the presence of all members. All collections are then given to two senior members who will open the envelopes and count all cash and checks placed in the envelopes and all other checks and envelopes placed in the collection basket that were not placed in envelopes.

The two senior members will prepare the deposit, make copies of all checks, and take the donated funds to the bank for deposit on the same day the funds were collected. The envelopes and copies of all checks will be given to bookkeeping to record donations. Copies of the checks are made so that bookkeeping can compare the amount on the check with the amount the member wrote on the envelope. Also, the faith-based organization will note the names and addresses of individuals who made contributions by check that were not placed in envelopes and create an account for them if they do not have one.³

All members will receive an annual written statement of the total amount that they donated in a particular year.

CONTROLS

There are several controls in this example. Members are required to place donations in their own envelopes and then record the amount of donation on the outside of the envelope. The two senior members of the organization make copies of all checks and give them and the donation envelopes to the bookkeeper. All receipts are counted by two senior members—therefore collusion is required in order for these members to steal the funds. All receipts are deposited on the day of receipt. The bookkeeper creates an account for all individuals who made a donation by check but did not place the donation in an envelope. An annual statement of contributions is provided to all members as a form of negative confirmation of the amount contributed. The bookkeeper has copies of the checks in case members dispute the amount recorded in their accounts.

³The donor's name and address are on the check.

WHAT COULD GO WRONG?

There are a couple of weaknesses in this system. First, the two senior members of the faith-based organization could collude and steal the cash that was deposited in the collection basket. Members who are in attendance could take cash out of the collection basket when it was being circulated. (Tape in the palm of a hand is one method used to take the cash out of the collection basket.) Members could also take the collection basket and pretend to make change—putting in a dollar and taking a twenty.

HOW CAN THE INTERNAL CONTROL WEAKNESSES BE MITIGATED?

The author was stymied as to how to mitigate the control weakness of passing around a collection basket in order to obtain donations. All who touched the basket had an opportunity to steal. A seminar attendee provided a solution. She told of how donations were accepted at her faith-based organization—and her proposal helped to mitigate this internal control weakness. All members walk up in single file to the front of the building. They then place their contributions in a lock box. The leader of the faith-based organization stands behind the lock box. All members observe the donation process. The lock box is opened in the presence of several senior members who prepare the deposit. The senior members who count the donation and prepare the deposit are rotated weekly. One would hope, though, that, of all places, a criminal would choose not to steal from a faith-based organization!

LAPPING ACCOUNTS RECEIVABLE

Lapping of accounts receivable is a classic method of embezzlement that can occur when an employee is in charge of both accounts receivable and cash receipts.⁴ If these functions are separated, then this type of embezzlement can occur if there is collusion between individuals who perform these two functions.

The methodology of the scheme is as follows. A cash receipt is received on an accounts receivable (Customer A) and the accounts receivable clerk will not post the transaction, but, instead, absconds with the cash. When cash is received for payment of another accounts receivable (Customer B), the accounts receivable clerk will then apply that payment to customer A's account. If Customer B's payment is less than the amount remitted by Customer A, then the accounts receivable clerk will then post payments from subsequent customers' remittances (C, D, E, and more) until Customer's A account is credited with the amount that Customer A originally remitted. Then the accounts receivable clerk will post subsequent cash receipts from other customers to customer B, C, D, E, and so forth until these customer's accounts are credited with their original payments. This fraud is somewhat overwhelming, and the continuous posting (lapping) of customer payments to accounts that were not posted with their remittance amounts require the accounts receivable clerk to maintain schedules of which subsidiary accounts should receive the credit (and the amount of the credit) for subsequent payments from other customers.

⁴See Chapter 3 “Accounts Receivable and Billing” for a discussion of the accounts receivable process.

For example, assume in Step 1, as follows, that the accounts receivable clerk receives the \$500 payment from Customer A. Instead of depositing the money and posting a credit to Customer A's account, the accounts receivable clerk takes the deposit to the bank and gets \$500 cash back (cash back on the deposit ticket).⁵ Next, in Step 2, Customer B's payment of \$300 is applied to Customer A's account. Then, in Step 3, Customer C's payment is applied to Customer A's remaining original remittance amount. The accounts receivable clerk would then take payments received from other customers and apply these payments to Customers' B and C's accounts.

Step 1

Accounts Receivable Clerk Embezzles \$500 from Customer A

<u>Customer A</u> 500	<u>Customer B</u> 300	<u>Customer C</u> 200
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Step 2

Accounts Receivable Clerk Posts \$300 Payment from Customer B to Customer A's Account

<u>Customer A</u> 500 300 ----- 200	<u>Customer B</u> 300	<u>Customer C</u> 200
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Step 3

Accounts Receivable Clerk Posts \$200 Payment from Customer C to Customer A's Account

<u>Customer A</u> 500 300 ----- 200 ----- 0	<u>Customer B</u> 300	<u>Customer C</u> 200
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⁵Note that even if an independent bank reconciliation is performed, the bank account will reconcile to the books and this type of fraud scheme would not be detected.

This lapping process is never-ending, unless the accounts receivable clerk makes restitution of the amount stolen (in this case, \$500). The accounts receivable clerk could never take a vacation, as a customer might call and complain that their monthly statement does not contain a credit for a payment made on their account. There is a risk to the accounts receivable clerk that another employee would investigate this complaint and the fraud would be discovered. However, in a small business, the employee receiving the customer's complaint might tell the customer to wait until the accounts receivable clerk's return to resolve any payment discrepancies. Then the accounts receivable clerk would inform the complaining customer that the posting was not performed due to the clerk's absence, or a timing issue due to the delay between when the customer sent the remittance and its posting to the customer's account. The clerk would then apply receipts from other customers to the complaining customer's account.

This classic lapping of accounts receivable embezzlement method is flawed, as there is a risk that the fraud might be discovered by another employee when the accounts receivable bookkeeper is absent. Additionally, this method requires the perpetrator to make an extensive number of journal entries which, in turn, increases the likelihood of detection.

Although lapping is a classic embezzlement scheme, there are other schemes which are even more difficult to detect (provided the opportunity exists). A wonderful opportunity for embezzlement exists when the functions of cash receipts and accounts receivable bookkeeping are combined. An example is discussed in the following paragraph.

The accounts receivable bookkeeper will embezzle the \$500 from Customer A and not post a credit to Customer A's account. The accounts receivable bookkeeper will then write off the amount embezzled. When compared with the traditional lapping method that requires multiple journal entries to embezzle, this method decreases the likelihood of being detected, as only one fraudulent journal entry needs to be made, not hundreds. Additionally, the accounts receivable clerk can take a vacation, as customers will not call to complain about a remittance payment not being posted to their account receivable as their statement will show a credit for the amount remitted.⁶

⁶There are numerous methods that can be employed by the accounts receivable clerk to make a fraudulent journal entry depending upon the particular application software being used to process accounts receivable. Also, most systems have a utility program that permit the user to make changes directly to a database (a journal entry) without using the application program. Hence, no formal journal entry need be made to write off the account. The next chapter provides a discussion of how typical journal entries are used to perpetrate a fraud and the controls that should exist to prevent this type of fraud.

Summary

Cash is an asset that is highly susceptible to theft. Therefore, an organization should have extensive controls over the cash receipts process. Some of these controls include segregation of duties over cash receipts and use of pseudo-negative confirmations (via monthly statements of account balances for retail or manufacturing entities or annual statements of donations for faith-based and other not-for-profit entities).

Whenever cash is first received and recorded, this should be performed by at least two trustworthy employees. And, if enough employees are on staff, individuals should be swapped out from time to time. In addition, all checks should be stamped “for deposit only” as soon as possible. Some companies use a bank’s lock box, and the bank assists in the processing of cash receipts. The entity should have an understanding with the bank that deposits should not permit the “cash back” feature when a deposit is made. Bank accounts should be reconciled by an independent employee and all bookkeeping should be performed by an employee who performs only that function with regard to cash receipts and no other.

A classic method used to embezzle, lapping of accounts receivable, was addressed, including the problems a perpetrator encounters when using this method of embezzlement.

Examples of control matrices were provided. Note that one control might achieve multiple objectives or financial assertions.



Chapter 5

REVENUE FRAUDS CAUSED BY FRAUDULENT FINANCIAL REPORTING

LEARNING OBJECTIVES

After completing this chapter, you should be able to do the following:

- Identify the various risks associated with fraudulent financial reporting.
- Recall controls over journal entries, including those made on spreadsheets.
- Recognize certain types of revenue fraud that have occurred in major fraudulent financial reporting frauds.

OVERVIEW

AU-C section 240, *Consideration of Fraud in a Financial Statement Audit*, notes that there are two categories of fraud—fraudulent financial reporting and misappropriation of assets. AU-C section 240 states that fraudulent financial reporting may be accomplished by the following:

- Manipulation, falsification, or alteration of accounting records or supporting documents from which financial statements are prepared
- Misrepresentation in or intentional omission from the financial statements of events, transactions, or other significant information
- Intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosure

Misstatements arising from misappropriation of assets can involve the theft of an entity's assets where the effect of the theft causes the financial statements not to be presented, in all material respects, in conformity with generally accepted accounting principles (GAAP). Misappropriation of assets can be accomplished in various ways, including embezzling receipts, stealing assets, or causing an entity to pay for goods or services that have not been received.

Studies have shown that fraudulent financial reporting fraud is typically perpetrated by senior management using journal entries. Other studies have consistently found that between five to ten percent of all cases of fraud are due to fraudulent financial reporting. This type of fraud accounts for ninety to ninety-five percent of all fraud dollar losses. AU-C section 240 notes that management has a unique ability to perpetrate fraud because management frequently is in a position to directly or indirectly manipulate accounting records and present fraudulent financial information. Management fraud may be difficult to detect due to collusion with parties inside or outside of the entity. Additionally, management might direct subordinates to record fictitious transactions or not record legitimate transactions.

KNOWLEDGE CHECK

1. Misappropriation of assets can be accomplished by
 - a. Intentional omission of transactions from the financial statements.
 - b. Misapplication of accounting principles.
 - c. Embezzling receipts.
 - d. Intentional recognition of revenue before terms of sale have been met.

Fraudulent Financial Reporting and the Fraud Triangle

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) principle 8 for fraud risk assessment is as follows:¹

The organization considers the potential for fraud in assessing risks to the achievement of objectives.

COSO lists the following points of focus highlighting important characteristics relating to this principle:

- The assessment of fraud considers incentives and pressures.
- The assessment of fraud considers fraudulent reporting, possible loss of assets, and corruption resulting from the various ways that fraud and misconduct can occur.
- The assessment of fraud risk considers opportunities for unauthorized acquisitions, use, or disposal of assets, altering of the entity's reporting records, or committing other inappropriate acts.
- The assessment of fraud risk considers how management and other personnel might engage in or justify inappropriate actions.

AU-C section 240 appendix A provides a list of fraud risk factors classified by either fraudulent financial reporting or misappropriation of assets. Additionally, within each classification, risk factors are categorized by the three aspects of fraud—pressure, opportunity, and rationalization. Because COSO specifically makes reference to fraud risk, the risk factors mentioned in AU-C section 240 which relate to fraudulent financial reporting are listed in exhibit 5-1. Auditors and management should be aware of these risk factors and design audit procedures (auditors) and controls (management) in light of these risk factors. Some controls to mitigate fraudulent financial reporting include implementing a Sarbanes-Oxley Act (SOX) whistleblower hotline and establishing an audit committee composed of independent directors. Audit procedures that address fraudulent financial reporting due to fraud are discussed in the following section and include procedures to audit revenue and journal entries.

¹COSO is the Committee of Sponsoring Organizations of the Treadway Commission which includes the AICPA, IIA, FEI, AAA, and IMA. It provides guidance to executive management and governance entities toward the establishment of more effective, efficient, and ethical business operations on a global basis. It sponsors and disseminates frameworks and guidance based on in-depth research, analysis, and best practices. See www.coso.org.



Exhibit 5-1 Fraud Risk Factors from AU-C section 240

Risk Factors Relating to Misstatements Arising from Fraudulent Financial Reporting

The following are examples of risk factors relating to misstatements arising from fraudulent financial reporting:

Incentives and Pressures to Commit Fraudulent Financial Reporting Risk Factors

- Financial stability or profitability is threatened by economic, industry, or entity operating conditions, such as (or as indicated by)
 - High degree of competition or market saturation, accompanied by declining margins.
 - High vulnerability to rapid changes, such as changes in technology, product obsolescence, or interest rates.
 - Significant declines in customer demand and increasing business failures in either the industry or overall economy.
 - Operating losses making the threat of bankruptcy, foreclosure, or hostile takeover imminent.
 - Recurring negative cash flows from operations or an inability to generate cash flows from operations while reporting earnings and earnings growth.
 - Rapid growth or unusual profitability especially compared to that of other companies in the same industry.
 - New accounting, statutory, or regulatory requirements.
- Excessive pressure exists for management to meet the requirements or expectations of third parties due to the following:
 - Profitability or trend level expectations of investment analysts, institutional investors, significant creditors, or other external parties (particularly expectations that are unduly aggressive or unrealistic), including expectations created by management in, for example, overly optimistic press releases or annual report messages
 - Need to obtain additional debt or equity financing to stay competitive—including financing of major research and development or capital expenditures
 - Marginal ability to meet exchange listing requirements or debt repayment or other debt covenant requirements
 - Perceived or real adverse effects of reporting poor financial results on significant pending transactions, such as business combinations or contract awards
 - A need to achieve financial targets required in bond covenants
 - Pressure for management to meet the expectations of legislative or oversight bodies or to achieve political outcomes, or both



Exhibit 5-1 Fraud Risk Factors from AU-C section 240 (continued)

- Information available indicates that the personal financial situation of management or those charged with governance is threatened by the entity's financial performance arising from the following:
 - Significant financial interests in the entity
 - Significant portions of their compensation (for example, bonuses, stock options, and earn-out arrangements) being contingent upon achieving aggressive targets for stock price, operating results, financial position, or cash flow
 - Personal guarantees of debts of the entity
- Management or operating personnel are under excessive pressure to meet financial targets established by those charged with governance, including sales or profitability incentive goals.

Opportunities to Commit Fraudulent Financial Reporting Risk Factors

- The nature of the industry or the entity's operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:
 - Significant related-party transactions not in the ordinary course of business or with related entities not audited or audited by another firm
 - A strong financial presence or ability to dominate a certain industry sector that allows the entity to dictate terms or conditions to suppliers or customers that may result in inappropriate or non-arm's-length transactions
 - Assets, liabilities, revenues, or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate
 - Significant, unusual, or highly complex transactions, especially those close to period end that pose difficult "substance over form" questions
 - Significant operations located or conducted across jurisdictional borders where differing business environments and regulations exist
 - Significant bank accounts or subsidiary or branch operations in tax-haven jurisdictions for which there appears to be no clear business justification
 - Use of business intermediaries for which there appears to be no clear business justification



Exhibit 5-1 Fraud Risk Factors from AU-C section 240 (continued)

- The monitoring of management is not effective as a result of the following:
 - Domination of management by a single person or small group (in a nonowner-managed business) without compensating controls
 - Oversight by those charged with governance over the financial reporting process and internal control is not effective
- The organizational structure is complex or unstable, as evidenced by the following:
 - Difficulty in determining the organization or individuals that have controlling interest in the entity
 - Overly complex organizational structure involving unusual legal entities or managerial lines of authority
 - High turnover of senior management, counsel, or those charged with governance
- Internal control components are deficient as a result of the following:
 - Inadequate monitoring of controls, including automated controls and controls over interim financial reporting (when external reporting is required)
 - High turnover rates or employment of accounting, internal audit, or IT staff who are not effective
 - Accounting and information systems that are not effective, including situations involving significant deficiencies or material weaknesses in internal control
 - Weak controls over budget preparation and development and compliance with law or regulation

Attitudes and Rationalizations to Commit Fraudulent Financial Reporting Risk Factors

- Communication, implementation, support, or enforcement of the entity's values or ethical standards by management or the communication of inappropriate values or ethical standards that are not effective
- Nonfinancial management's excessive participation in or preoccupation with the selection of accounting principles or the determination of significant estimates
- Known history of violations of securities laws or other laws and regulations, or claims against the entity, its senior management, or those charged with governance alleging fraud or violations of laws and regulations
- Excessive interest by management in maintaining or increasing the entity's stock price or earnings trend



Exhibit 5-1 Fraud Risk Factors from AU-C section 240 (continued)

- The practice by management of committing to analysts, creditors, and other third parties to achieve aggressive or unrealistic forecasts
- Management failing to remedy known significant deficiencies or material weaknesses in internal control on a timely basis
- An interest by management in employing inappropriate means to minimize reported earnings for tax-motivated reasons
- Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality
- Low morale among senior management
- The owner-manager makes no distinction between personal and business transactions
- Dispute between shareholders in a closely-held entity
- A strained relationship between management and the current or predecessor auditor, as exhibited by the following:
 - Frequent disputes with the current or predecessor auditor on accounting, auditing, or reporting matters
 - Unreasonable demands on the auditor, such as unreasonable time regarding the completion of the audit or the issuance of the auditor's report
 - Restrictions on the auditor that inappropriately limit access to people or information or the ability to communicate effectively with those charged with governance
 - Domineering management behavior in dealing with the auditor, especially involving attempts to influence the scope of the auditor's work or the selection or continuance of personnel assigned to or consulted on the audit engagement

AU-C section 240 states that if the auditor has concluded that the presumption that there is a risk of material misstatement due to fraud related to revenue recognition is overcome in the circumstances of the engagement, the auditor should include in the audit documentation the reasons for that conclusion. Furthermore, the standard notes that material misstatements due to fraudulent financial reporting often result from an overstatement of revenues (for example, through premature revenue recognition or recording fictitious revenues) or an understatement of revenues (for example, through improperly shifting revenues to a later period). Therefore, the auditor should ordinarily presume that there is a risk of material misstatement due to fraud relating to revenue recognition.

AU-C section 240 notes that analytical procedures performed during planning the audit may be helpful in identifying the risks of material misstatement due to fraud. An example of such an analytical procedure that addresses the objective of unusual or unexpected relationships involving revenue accounts is a comparison of sales volume, as determined from recorded revenue amounts, with production capacity. An excess of sales volume over production capacity may be indicative of recording fictitious sales. As another example, a trend analysis of revenues by month and sales returns by month during and shortly after the reporting period may indicate the existence of undisclosed side agreements. Some unusual or unexpected analytical relationships may be identified and may indicate a risk of material misstatement due to fraud because management or employees generally are unable to manipulate certain information to create seemingly normal or expected relationships. For example, the relationship of net income to cash flows from operations may appear unusual if management recorded fictitious revenues and receivables, but was unable to manipulate cash.

KNOWLEDGE CHECK

2. An example of a pressure to commit fraudulent financial reporting is
 - a. Significant declines in customer demand.
 - b. Significant bank accounts in tax-haven jurisdictions for which there is no clear business justification.
 - c. Known history of violations of laws and regulations.
 - d. Significant, unusual, or highly complex transactions.

How the Auditor Can Respond to Risks of Revenue-Related Fraudulent Financial Reporting

AU-C section 240 provides examples of responses to identified risks of material misstatements relating to revenue-related fraudulent financial reporting:

Because revenue recognition is dependent on the particular facts and circumstances, as well as accounting principles and practices that can vary by industry, the auditor ordinarily will develop auditing procedures based on the auditor's understanding of the entity and its environment, including the composition of revenues, specific attributes of the revenue transactions, and unique industry considerations. If there is an identified risk of material misstatement due to fraud that involves improper revenue recognition, the auditor also may want to consider

- performing substantive analytical procedures relating to revenue using disaggregated data, for example, comparing revenue reported by month and by product line or business segment during the current reporting period with comparable prior periods. Computer-assisted audit techniques may be useful in identifying unusual or unexpected revenue relationships or transactions.
- confirming with customers certain relevant contract terms and the absence of side agreements, because the appropriate accounting often is influenced by such terms or agreements. For example, acceptance criteria, delivery and payment terms, the absence of future or continuing vendor obligations, the right to return the product, guaranteed resale amounts, and cancellation or refund provisions often are relevant in such circumstances.
- inquiring of the entity's sales and marketing personnel or in-house legal counsel regarding sales or shipments near the end of the period and their knowledge of any unusual terms or conditions associated with these transactions.
- being physically present at one or more locations at period end to observe goods being shipped or being readied for shipment (or returns awaiting processing) and performing other appropriate sales and inventory cutoff procedures.
- for those situations for which revenue transactions are electronically initiated, authorized, processed, and recorded, testing controls to determine whether they provide assurance that recorded revenue transactions occurred and are properly recorded.

Journal Entries

The AICPA's Professional Issues Task Force (PITF) provides insightful guidance on procedures that are recommended with regard to journal entries.² This guidance is important because AU-C section 240 notes that a significant risk of management override of internal controls is the creation of fraudulent journal entries, and requires auditors to test journal entries. Numerous studies have shown that management fraud accounts for over 90 percent of the total dollar amount of fraud in public corporations. Several high-profile cases that resulted in restatement of financial statements and allegedly involved management fraud were purportedly perpetrated through the use of inappropriate journal entries and other adjustments. WorldCom and Waste Management are examples of this type of fraud. In many of those instances, management accomplished the fraud by posting numerous improper journal entries in relatively small amounts, which impacted large balance sheet and income statement accounts, thereby not resulting in a significant fluctuation being identified through analytical procedures. The affected accounts included receivables, inventory, fixed assets, accumulated depreciation, goodwill, prepaid expenses, and operating expenses, among others. If management is committed to creating fraudulent financial statements, it can design journal entries to, among other things,

- mask the diversion of funds.
- record topside adjustments that improperly increase revenue.
- improperly adjust segment reporting.
- improperly reverse purchase accounting reserves.
- improperly write off uncollectible accounts receivable to purchase accounting reserve accounts and intercompany accounts, thereby not reducing income.
- understate payables through the recording of post-closing journal entries to increase various revenue accounts.
- improperly decrease accounts payable and general and administrative expenses.
- improperly capitalize costs as fixed assets or construction in progress instead of expensing those costs as incurred.
- improperly record adjustments to allowances.

Hence, it is appropriate to address the guidance concerning journal entries provided by the AICPA's PITF. The following is an adaptation of this guidance.

The Auditing Standards Board has promulgated standards that address an auditor's understanding and evaluation of journal entries and other adjustments. For example, in AU-C section 315, the Auditing Standards Board noted that in obtaining an understanding of the information system, including the related business processes relevant to financial reporting and communication, the auditor should obtain an understanding of the automated and manual procedures an entity uses to prepare its financial statements and related disclosures. This includes, among other items, understanding procedures an entity uses to enter transaction totals into the general ledger and controls surrounding journal entries, including nonstandard journal entries used to record nonrecurring, unusual transactions, or adjustments.

In addition, AU-C section 240 states, "Material misstatements of financial statements due to fraud often involve the manipulation of the financial reporting by (a) recording inappropriate or unauthorized journal entries throughout the year or at period end, or (b) making adjustments to amounts reported in the

²This guidance does not have authoritative status; however, the guidance is considered an *Other Auditing Publication* as defined in AU-C section 200, *Overall Objectives of the Independent Auditor and the Conduct of an Audit in Accordance With Generally Accepted Auditing Standards*.

financial statements that are not reflected in formal journal entries, such as through consolidating adjustments, report combinations, and reclassifications.” Accordingly, the auditor should design procedures to test the appropriateness of journal entries recorded in the general ledger and other adjustments (for example, entries posted directly to financial statement drafts) made in the preparation of the financial statements.

AU-C section 240 further states, “Nonstandard journal entries, and other entries such as consolidating adjustments, may not be subject to the same level of internal control as those journal entries used on a recurring basis to record transactions such as monthly sales, purchases, and cash disbursements.” Accordingly, the auditor should consider placing additional emphasis on identifying and testing items processed outside of the normal course of business.

AU-C section 240 states, “Even if specific risks of material misstatement due to fraud are not identified by the auditor, a possibility exists that management override of controls could occur. Accordingly, the auditor should address the risk of management override of controls apart from any conclusions regarding the existence of more specifically identifiable risks by designing and performing audit procedures to test the appropriateness of journal entries recorded in the general ledger and other adjustments made in the preparation of the financial statements, including entries posted directly to financial statement drafts. In designing and performing audit procedures for such tests, the auditor should

- a. obtain an understanding of the entity’s financial reporting process and controls over journal entries and other adjustments, and the suitability of design and implementation of such controls;
- b. make inquiries of individuals involved in the financial reporting process about inappropriate or unusual activity relating to the processing of journal entries and other adjustments;
- c. consider fraud risk indicators, the nature and complexity of accounts, and entries processed outside the normal course of business;
- d. select journal entries and other adjustments made at the end of a reporting period; and
- e. consider the need to test journal entries and other adjustments throughout the period.

The purpose of the PITF alert is to provide auditors with guidance regarding the design and performance of audit procedures to fulfill the responsibilities outlined in AU-C section 240 regarding journal entries and other adjustments.

OBTAINING AN UNDERSTANDING OF THE ENTITY’S FINANCIAL REPORTING PROCESS AND ITS CONTROLS OVER JOURNAL ENTRIES AND OTHER ADJUSTMENTS

As noted previously, an entity's financial reporting system also includes the use of nonstandard journal entries to record nonrecurring or unusual transactions or adjustments such as business combinations, or a nonrecurring estimate such as asset impairment. Additionally, nonstandard entries include consolidation entries, reclassification entries, and spreadsheet or other worksheet adjustments. Because of the risk of misstatements (intentional or unintentional) oftentimes linked to nonstandard journal entries and other adjustments, the engagement team needs to obtain a thorough understanding of the entity's controls surrounding this aspect of the financial reporting process.

Obtaining an understanding of the entity's financial reporting process helps the auditor to identify important information, such as

- the entity's written and unwritten policies and procedures regarding the initiation, recording, and processing of standard and nonstandard journal entries and other adjustments;
- the sources of significant debits and credits to an account;
- individuals responsible for initiating entries to the general ledger, transaction processing systems, or consolidation;
- approvals and reviews required for such entries and other adjustments;
- the mechanics for recording journal entries and other adjustments (for example, whether entries are initiated and recorded online with no physical evidence, or created in paper form and entered in batch mode);
- controls, if any, designed to prevent and detect fictitious entries and unauthorized changes to journals and ledgers; and
- controls over the integrity of the process used to generate reports used by the auditors.

ASSESSING THE RISK OF MATERIAL MISSTATEMENT RESULTING FROM JOURNAL ENTRIES AND OTHER ADJUSTMENTS

Although AU-C section 240 requires the auditor to test journal entries and other adjustments regardless of the identification of specific risks during risk assessment procedures, the nature, timing, extent, and focus of the testing will be influenced by the auditor's risk assessments. The auditor should assess the nature and risk of management's incentive to manipulate earnings or financial ratios through financial statement misstatement. That assessment should be made in conjunction with the interim reviews as well as the year-end audit. For example, if a client has loan covenant ratios that depend on earnings, and net income is close to causing covenant violations, then the auditor may assess the risk of material misstatement as higher. The auditor may also assess the risk of material misstatement as higher when executive compensation is tied to earnings thresholds and earnings are close to the threshold. Additionally, market expectations in many cases have led to earnings manipulations. In those cases where the auditor determines that the risk of fraudulent journal entries is high due to questions regarding the integrity of management, the auditor should reassess his or her client acceptance and continuance decision.

AU-C section 240 requires a discussion among the key engagement team members and states, "This discussion should include an exchange of ideas or brainstorming among the engagement team members about how and where the entity's financial statements might be susceptible to material misstatement due to fraud, how management could perpetrate and conceal fraudulent financial reporting, and how assets of the entity could be misappropriated."

Journal entries and other adjustments oftentimes exist only in electronic form, which requires extraction of the desired data by an auditor with IT knowledge and skills or the use of an IT specialist. *In audits of entities with complex IT systems, the IT auditors and IT specialists should be included in the brainstorming session.* It is important to note that it is the complexity of the IT system that is the driver, not the size of the entity. Auditors of small and midsized businesses may need IT specialists on the audit team. In the brainstorming session, the auditors normally will discuss the following:

- The various ways in which management could originate and post inappropriate journal entries or other adjustments

- The kinds of unusual combinations of debits and credits that the engagement team should be looking for
- The types of journal entries or other adjustments that could result in a material misstatement that would not likely be detected by standard audit procedures
- Risks specific to the business, and potential motives for inappropriate reporting

INQUIRIES OF INDIVIDUALS INVOLVED IN THE FINANCIAL REPORTING PROCESS

AU-C section 240 states, “The auditor should make inquiries of management, and others within the entity as appropriate, to determine whether they have knowledge of any actual, suspected, or alleged fraud affecting the entity.” Additionally, AU-C section 240 states, “The auditor’s inquiries of management may provide useful information concerning the risks of material misstatements in the financial statements resulting from employee fraud. However, such inquiries are unlikely to provide useful information regarding the risks of material misstatement in the financial statements resulting from management fraud. Making inquiries of others within the entity, in addition to management, may provide individuals with an opportunity to convey information to the auditor that may not otherwise be communicated.” The auditor should use professional judgment to determine those others within the entity to whom inquiries should be directed and the extent of such inquiries. In making this determination, the auditor should consider whether others within the entity may be able to provide information that will be helpful to the auditor in identifying risks of material misstatement due to fraud, such as others who may have additional knowledge about or be able to corroborate risks of fraud identified in the discussions with management or the audit committee. Where practical, regardless of the fraud risk assessment, the auditor should inquire of the entity’s accounting and data entry personnel about whether those individuals were requested to make unusual entries during the audit period. The auditor should also consider asking selected programmers and IT staff about the existence of unusual or unsupported entries and specifically inquire about these entries, including whether any were initiated directly by top management outside the normal accounting process. The auditor should not expect client personnel to volunteer information about known or suspected fraud. However, those same individuals may be more likely to provide information if asked directly. It is important to remember that auditors should not just be looking for frauds occurring against the company, but frauds occurring within the company (which “benefit” the company as a whole).

ASSESSMENT OF COMPLETENESS OF JOURNAL ENTRY AND OTHER ADJUSTMENTS SOURCES

It is important in testing journal entries and other adjustments that the auditor be aware of and consider the entire population of journal entries and other adjustments. The auditor’s ability to detect fraud is adversely affected if he or she is not assured of access to the entire population of journal entries posted and other adjustments made during the period under audit. The auditor should be aware that journal entries and other adjustments may be made outside of the general ledger and should obtain a complete understanding as to how the various general ledgers are combined and the accounts are grouped to create the consolidated financial statements. For example, at large, multinational companies, multiple general ledgers are utilized, adjustments are made to convert from local GAAP to US GAAP, and translation and other adjustments are made before the numbers are combined (perhaps at more than one level of sub-

consolidation) and become subject to further elimination and adjusting entries. Appropriate procedures should be applied to all of the various sources of information from which journal entries and other adjustments are selected for testing to assist the auditor in assessing completeness. The nature and extent of these procedures will depend on the engagement risk assessments and the client's systems for recording transactions.

IDENTIFICATION AND SELECTION OF JOURNAL ENTRIES AND OTHER ADJUSTMENTS FOR TESTING

After the auditor has made his or her assessment of the risk of fraudulent journal entries and other adjustments, and has performed appropriate procedures to assess completeness, he or she should design procedures, based on that assessment, to test the appropriateness of the journal entries and other adjustments from the various sources previously identified, including (a) journal entries recorded in the general ledger, and (b) top-side consolidation or report entries that are not actually posted to the general ledger. The auditor should test the appropriateness of selected journal entries and other adjustments in all engagements—including those in which the risk of fraudulent journal entries is assessed as low. Those tests are performed to confirm that entries are appropriately approved by management, are adequately supported, and reflect the underlying events and transactions. Such tests should be designed to detect inappropriate entries.

After considering the identified population of journal entries and other adjustments, the auditor should use professional judgment to determine the nature, timing, and extent of the testing of journal entries and other adjustments. AU-C section 240 requires that the auditor consider

- the auditor's assessment of the risk of material misstatement due to fraud.
- the effectiveness of controls that have been implemented over journal entries and other adjustments.
- the entity's financial reporting process and the nature of the evidence that can be examined.
- the characteristics of fraudulent entries or adjustments.
- the nature and complexity of the accounts.
- journal entries or other adjustments processed outside the normal course of business.

For many entities, routine processing of transactions involves a combination of manual and automated steps and procedures. Similarly, the processing of journal entries and other adjustments might involve both manual and automated procedures and controls. Regardless of the method, the auditor's procedures should include selecting, from the various sources of information from which journal entries and other adjustments are posted, specific entries and other adjustments to be tested, and examining the support for those items. In addition, the auditor should be aware that journal entries and other adjustments might exist in either electronic or paper form. *In an IT environment, it may be necessary for the auditor to employ CAATs (as noted previously, these include report writers, software or data extraction tools, or other systems-based techniques) to identify the journal entries and other adjustments to be tested. In addition, the CAATs ordinarily are designed to detect the following:*

- Entries made at unusual times of day, that is, outside regular business hours
- Entries made by unusual users, blank or nonsensical user names, senior management, or the IT staff
- Electronic entries that, through management manipulation, are not documented in the general ledger

Additionally, it is normally beneficial if the CAATs filter out recurring transactions in order to identify nonrecurring transactions and foot the detail in accounting records. The CAATs should be designed specifically to assist in evaluating whether all journal entries and other adjustments are included in the

population to be reviewed. This is important as GAAS requires the auditor to document procedures used to provide assurance that all journal entries were available for testing. *Firms utilizing internal IT specialists to perform the CAATs should invest appropriate resources in training to ensure that the IT specialists are able to competently perform the procedures and understand the importance of detecting any inappropriate journal entries or other adjustments.*

Characteristics of fraudulent journal entries may include entries (a) made to unrelated, unusual, or seldom-used accounts, (b) made by individuals who typically do not make journal entries, (c) recorded at the end of the period or as post-closing entries that have little or no explanation or description, (d) made either before or during the preparation of the financial statements to accounts that do not have account numbers, (e) made on holidays or other non-working days, or (f) containing round numbers or a consistent ending number (for example, several entries at \$1 below the “to be reviewed” threshold). The auditor should look for unusual entries during both the year-end and quarter-end cutoff procedures. Additionally, any entries that were reversed at the beginning of the subsequent period should be scrutinized more carefully. Also, the auditor ordinarily should consider looking for unusual entries that affect revenue and cost of sales.

Inappropriate journal entries may be applied to accounts that (a) contain transactions that are complex or unusual in nature, (b) contain significant estimates and period-end adjustments, (c) have been prone to errors in the past, (d) have not been reconciled on a timely basis or contained unreconciled differences, (e) contain intercompany transactions, or (f) are otherwise associated with an identified risk of material misstatement due to fraud. The auditor should recognize, however, that inappropriate journal entries also might be made to other accounts.

In audits of entities that have several locations or components, the auditor should consider the need to select journal entries from locations based on the following: (a) the nature and amount of assets and transactions executed at the location or component; (b) the degree of centralization of records or information processing; (c) the effectiveness of the control environment, particularly with respect to management’s direct control over the exercise of authority delegated to others and its ability to effectively supervise activities at the location or component; (d) the frequency, timing, and scope of monitoring activities by the entity or others at the location or component; and (e) judgments about materiality of the location or component.

After considering the factors outlined previously, as well as the number and monetary amount of journal entries and other adjustments, the auditor should select journal entries and other adjustments from the population and examine documentary evidence indicating that the journal entries are properly supported and approved by management. The selections should include both journal entries recorded in the general ledger and top side or report adjustments that are not actually posted to the general ledger. Because fraudulent journal entries often are made at the end of a reporting period, the auditor’s testing ordinarily should focus on the journal entries made at that time. However, because material misstatements in financial statements due to fraud can occur throughout the period and may involve extensive efforts to conceal how they were accomplished, the auditor should consider whether there is also a need to test journal entries throughout the period under audit. Additionally, if entries are used to correct errors in financial statements of a previous period, the auditor should evaluate whether those previously issued financial statements should be restated.

The auditor should introduce an element of unpredictability regarding the dollar amount and types of journal entries and other adjustments tested. Often, companies are able to perpetrate fraud when, over a period covering several engagements, management is able to determine the auditor’s scope or strategy and therefore design inappropriate journal entries and other adjustments that have a high probability of not being tested.

OTHER ADJUSTMENTS

In many cases, entities utilize spreadsheets to group general ledger accounts and make consolidating adjustments, reclassifications, and other adjustments to arrive at financial statement amounts. Those consolidating adjustments, report combinations, and reclassifications that are not reflected in formal journal entries should also be tested based on the auditor's risk assessment. Tests of other adjustments would normally involve comparing the adjustments to underlying supporting information, and considering the rationale underlying the adjustment as well as the reason it was not reflected in a formal journal entry.

Risks and controls over spreadsheets used to support journal entries or as a foundation for preparation of financial statements are addressed in the following section.

DOCUMENTATION

Audit documentation should be sufficient to show that the accounting records agree or reconcile with the financial statements or other information being reported on. The results of procedures performed relative to the entity's journal entries and other adjustments should be documented in the appropriate section of the current audit file. This documentation should include

- the procedures used by the engagement team to assess the completeness of the population of journal entries and other adjustments subject to review and testing.
- the journal entries and other adjustments that were selected for testing and the basis therefore.
- the procedures performed to audit the journal entries and other adjustments.
- the conclusions reached.
- who performed and reviewed the work.

Spreadsheets

One of the major public accounting firms issues a whitepaper on spreadsheets and related controls as many companies use spreadsheets to either support accounting entries and disclosures or serve as the foundation from which the entity's financial statements are prepared. There are risks that the spreadsheets might contain errors or fraudulent entries because many spreadsheets are developed by and under the control of one user or a small number of users.

For example, WorldCom management used a spreadsheet to help perpetrate its financial statement fraud. Additionally, there could be unintentional errors contained in spreadsheets. A major CPA firm reported the following:

A utilities company took a \$24 million charge to earnings after a spreadsheet error—a simple mistake in cutting and pasting—resulted in an erroneous bid for the purchase of hedging contracts at a higher price than it wanted to pay.

A trader at a bank was able to perpetrate fraud through manipulation of spreadsheet models used by the bank's risk control staff. Although an independent check of the trader's activities and Value at Risk (VaR) was supposed to be conducted by the bank's risk control staff, instead a spreadsheet was relied upon that obtained information from the trader's personal computer which included figures for transactions that were not real. Because of inadequate controls over the spreadsheet, this fraud continued for months.

A spreadsheet error at a major financial institution was deemed a significant factor in a \$1 billion financial statement error in the classification of securities. The error resulted from a flawed change control process—an unapproved change to a formula within the spreadsheet—and other control deficiencies, including lack of technical and user documentation, insufficient testing and inadequate backup and recovery procedures.

SPREADSHEET COMPLEXITY³

The complexity of spreadsheets has been categorized in the following manner:

- Low: Spreadsheets which serve as an electronic logging and information tracking system.
- Moderate: Spreadsheets which perform simple calculations such as using formulas to total certain fields or calculate new values by multiplying two cells. These spreadsheets can be used as methods to translate or reformat information, often for analytical review and analysis, for recording journal entries or for making a financial statement disclosure.
- High: Spreadsheets which support complex calculations, valuations, and modeling tools. These spreadsheets are typically characterized by the use of macros and multiple supporting spreadsheets where cells, values, and individual spreadsheets are linked. They often are used to determine transaction amounts or as the basis for journal entries into the general ledger or financial statement disclosures.

³ PricewaterhouseCoopers. *The Use of Spreadsheets: Considerations for Section 404 of the Sarbanes-Oxley Act*. Delaware: Pricewaterhouse Coopers LLP, July, 2004.

Potential Risks and Issues With Spreadsheets

It is suggested that the auditor consider the following when evaluating the risk and significance of potential spreadsheet issues:

- Complexity of the spreadsheet and calculations
- Purpose and use of the spreadsheet
- Number of spreadsheet users
- Type of potential input, logic, and interface errors
- Size of the spreadsheet
- Degree of understanding and documentation of the spreadsheet requirements by the developer
- Uses of the spreadsheet's output
- Frequency and extent of changes and modifications to the spreadsheet
- Development, developer (and training) and testing of the spreadsheet before it is utilized

Steps for Evaluating Spreadsheet Controls

It is suggested that auditors employ the following methodology to ensure there are appropriate controls over spreadsheets:

1. Inventory spreadsheets
2. Evaluate the use and complexity of spreadsheets
3. Determine the necessary level of controls for “key” spreadsheets
4. Evaluate existing “as is” controls for each spreadsheet
5. Develop action plans for remediating control deficiencies

1. Inventory Spreadsheets

The first step is to inventory all spreadsheets within the organization that are used to support significant financial processes. The inventory should include the following:

- Name of the spreadsheet
- Brief description of the spreadsheet and the financial amounts calculated
- Department responsible for the “development,” as well as any other departments that utilize the spreadsheet
- Frequency and extent of changes to the spreadsheet

2. Evaluate the Use and Complexity of Spreadsheets

After the inventory, it is necessary to evaluate the use and complexity of each spreadsheet.

3. Determine the Necessary Level of Controls for the Spreadsheet

The appropriate combination of the following controls should be considered to help mitigate the risks inherent in a spreadsheet environment:

- a. **Change Control** – Maintaining a controlled process for requesting changes to a spreadsheet, making changes and then testing the spreadsheet and obtaining formal sign-off from an independent individual that the change is functioning as intended.
- b. **Version Control** – Ensuring only current and approved versions of spreadsheets are being used by creating naming conventions and directory structures.

- c. **Access Control** (for example, Create, Read, Update, Delete) – Limiting access at the file level to spreadsheets on a central server and assigning appropriate rights. Spreadsheets can also be password protected to restrict access.
- d. **Input Control** – Ensuring that reconciliations occur to make sure that data is input completely and accurately. Data may be input into spreadsheets manually or systematically through downloads.
- e. **Security and Integrity of Data** – Implementing a process to ensure that data embedded in spreadsheets is current and secure. This can be done by “locking” or protecting cells to prevent inadvertent or intentional changes to standing data. In addition, the spreadsheets themselves should be stored in protected directories.
- f. **Documentation** – Ensuring that the appropriate level of spreadsheet documentation is maintained and kept up-to-date to understand the business objective and specific functions of the spreadsheet.
- g. **Development Lifecycle** – Applying a standard Software Development Life Cycle to the development process of the more critical and complex spreadsheets covering standard phases: requirements specification, design, building, testing, and maintenance. Testing is a critical control to ensure that the spreadsheet is producing accurate and complete results.
- h. **Back-ups** – Implementing a process to back up spreadsheets on a regular basis so that complete and accurate information is available for financial reporting.
- i. **Archiving** – Maintaining historical files no longer available for update in a segregated drive and locking them as “read only.”
- j. **Logic Inspection** – Inspecting the logic in critical spreadsheets by someone other than the user or developer of the spreadsheet. This review should be formally documented.
- k. **Segregation of Duties or Roles and Procedures** – Defining and implementing roles, authorities, responsibilities, and procedures for issues such as ownership, sign-off, segregation of duties, and usage.
- l. **Overall Analytics** – Implementing analytics as a detective control to find errors in spreadsheets used for calculations. However, analytics alone are not a sufficient control to completely address the inherent risk of financial amounts generated using spreadsheets.

It is suggested that the level of controls implemented should be considered relative to the spreadsheet’s use, complexity, and required reliability of the information. Even for spreadsheets categorized as low in complexity and importance, control-types (a) through (e) in the previous list, should generally be in place.

4. Evaluate Existing “As Is” Controls for Each Spreadsheet

Evaluation of existing controls is typically done by comparing the existing spreadsheet controls against a checklist of “necessary” controls, such as those listed previously, based upon the use and complexity of the spreadsheet. Any gaps between existing and “necessary” controls should be identified as remediation items as well as any gaps in operating effectiveness.

5. Develop Action Plans for Remediating Control Deficiencies

An action plan should be developed for each control gap identified.

KNOWLEDGE CHECK

3. How many steps are suggested for the methodology that helps ensure that there are appropriate controls over spreadsheets?
 - a. Four.
 - b. Five.
 - c. Six.
 - d. Seven.

4. Password protecting spreadsheets is an example of which spreadsheet control?
 - a. Input.
 - b. Access.
 - c. Change.
 - d. Version.

Case

A notorious case that had numerous types of fraudulent financial reporting involved Mattel Toy Company. This discussion will focus solely on the revenue manipulation portion of the financial reporting fraud. See exhibit 5-2.⁴



Exhibit 5-2 Fraudulent Financial Reporting Case

Management was concerned that the company would fail to meet sales and earnings expectations for the fiscal year. One method that was employed to overstate revenue was the “bill and hold” scheme. Customers would be billed in the current year but the goods would not be delivered until a future date. Effectively, the company was not meeting the revenue recognition criteria required by generally accepted accounting principles and booking future sales in the current period.

Supporting documentation was created and included sales orders, sales invoices, and bills of lading. The fictitious bills of lading were marked “bill and hold” and the Mattel employee signed for both Mattel and the common carrier. The auditors, Arthur Andersen, did not inquire of Mattel personnel concerning those fictitious bills of lading that were marked “bill and hold.” Additionally, these bills of lading did not contain delivery instructions and other necessary information. Arthur Anderson reviewed many of these fictitious bills of lading as an additional audit procedure when accounts receivable confirmation responses indicated that the customers should not have been billed for the “bill and hold” sales.

Management also made numerous large reversing and correcting journal entries to hide this scheme. Journal entries were also made to make the accounts receivable control account balance with the subsidiary accounts receivable ledger.

⁴For a more complete discussion of this and related cases see: Knapp, Michael C., *Contemporary Auditing: Real Issues and Cases 4th ed.*, South-Western College Publishing: Cincinnati, OH. 458 pp. www.amazon.com/Contemporary-Auditing-Michael-C-Knapp/dp/1133187897

Red Flags

A list of red flags that might alert management or the auditor to revenue-related fraudulent financial reporting is contained in exhibit 5-3.



Exhibit 5-3 Revenue-Related Fraudulent Financial Reporting Red Flags

- Credit memos to accounts receivable after the end of the period
- Customer complaints about amounts billed
- Discrepancies in accounts receivable
- Unusual journal entries
- Missing or altered documents
- Lack of cash flow from operations when income is reported
- Unusual reconciling differences between the sales journal and the general ledger
- Sales to customers in the last month at more favorable terms than previous months
- Sales with affiliates and related parties
- Pre-dated or post-dated transaction
- Journal entries made to the sale or revenue account directly—not posted from accounts receivable subledger or the sales journal
- Large or unusual adjustments to sales accounts made just prior to or just after the end of the period
- Channel stuffing
- Sales to nonexistent customers
- Phony sales to legitimate customers
- Billing for items not shipped or ordered
- Double billing
- Bill and hold
- Earnings process not complete—transactions do not meet revenue recognition criteria

Summary

This chapter addressed revenue-related fraudulent financial reporting characteristics, risks, and red flags. Various audit procedures that can be employed to detect revenue-related fraudulent financial reporting were reviewed. Also, controls that management can implement to decrease the likelihood of revenue-related fraudulent financial reporting were addressed.

The fraudulent financial reporting risk factors were presented and categorized by the three aspects of the fraud triangle—pressure, opportunity, and rationalization.

Because the major method used by management to perpetrate fraudulent financial reporting involves making fictitious journal entries (including top-sided entries made on spreadsheets), risks and controls over journal entries and spreadsheets were discussed at length.

A list of red flags that might alert management and the auditor to revenue-related fraudulent financial reporting was provided.

FRAUD GLOSSARY¹

Advance Fee Fraud – Falsely obtaining an advance fee for work or services not performed.

Alford Plea – Named after the Supreme Court case that upheld the practice under which a defendant pleads guilty, although continuing to assert innocence. Such a plea may be made to obtain the benefits of a plea agreement and to avoid potentially more dire consequences, such as the death penalty, if the defendant is convicted after trial.

Anti-Kickback Act of 1986 – The provisions of this act are contained in Title 41, U.S. Code, §§ 51-58). The act outlaws the giving or receiving of anything of value for the purpose of improperly obtaining or receiving favorable treatment in connection with U.S. government contracts.

Arbitration – Process whereby the dispute is submitted to an impartial third-person who then decides the outcome of the case, i.e., which party should win. The arbitrator acts as a judge or jury would by deciding the case on its merits. An arbitration can be either “binding” or “nonbinding.” If the arbitration is binding, then the decision of the arbitrator is final, and the parties cannot later submit their dispute to a judge or jury for determination.

Arraignment – Because of due process considerations, the defendant has to be brought before the court shortly after his arrest. He enters a plea at this time in a proceeding that is called an *arraignment*. He will be given notice of the charges against him, be informed of his rights, and, if applicable, bail will be set.

Attorney Work Product Doctrine – Under Rule 26(b)(3) of the Federal Rules of Civil Procedure, documents and tangible things which are prepared in anticipation of litigation or for a trial are protected by the work product privilege. The information may be disclosed only if the opposing party can show “substantial need” for the protected information and that the information cannot be obtained from another source. The privilege extends to information prepared by or for a party or the party’s representative including attorneys and consultants.

Attorney-Client Privilege – This privilege precludes disclosure of communications between an attorney and client, but only if the following conditions are met: (1) the client retained the attorney, (2) to provide legal advice, (3) and thereafter communicated with the attorney on a confidential basis, and, (4) has not waived the privilege.

Best Evidence Rule – Prohibits a party from testifying about the contents of a document without producing the document itself. Also known as the “*original writing*” rule, it requires that when a witness testifies about the contents of a document, at least a fair copy of the original must be available for inspection. If there is no original, an authenticatable copy will do.

Bid-Rigging Schemes – The acceptance or payment of bribes or kickbacks in construction contracts. Bid-rigging schemes can be categorized based on the stage of bidding at which the fraudster exerts his

¹ © 1999 Association of Certified Fraud Examiners

influence. Bid-rigging schemes usually occur in the presolicitation phase, the solicitation phase, or the submission phase of the bidding process.

Billing Schemes – Type of asset misappropriation scheme which allows the perpetrator to misappropriate company funds without ever actually handling cash or checks while at work. There are three principal types of billing schemes: false invoicing via shell companies, false invoicing via nonaccomplice vendors, and personal purchases made with company funds.

Biological Theories – Biological theories maintain that criminal behavior is not the result of choice, that is, the calculation of benefits and potential losses, but rather is caused by the physical traits of those who commit crime.

Brady Material – Exculpatory information possessed by the government. Refers to the 1963 decision by the U.S. Supreme Court in *Brady v. Maryland*, 373 U.S. 83. Under *Brady*, the prosecution must disclose all evidence requested by the defendant that is material to guilt or punishment, i.e., evidence that would tend to *exculpate* him or reduce his penalty. The government is expressly forbidden to conceal evidence that would call the charges into question.

Bribery – Includes official bribery, which refers to the corruption of a public official, and commercial bribery, which refers to the corruption of a private individual to gain a commercial or business advantage. The elements of official bribery vary by jurisdiction, but generally are (1) giving or receiving, (2) a thing of value, (3) to influence, (4) an official act.

Bustout – A planned bankruptcy. It can take many different forms. The basic approach is for an apparently legitimate business to order large quantities of goods on credit, then dispose of those goods through legitimate or illegitimate channels. The perpetrators then close shop, absconding with the proceeds, and leaving the suppliers unpaid.

Cash Larceny – The intentional taking away of an employer's cash (the term cash includes both currency and checks) without the consent and against the will of the employer.

Chain of Custody – Refers to (1) who has had possession of an object, and (2) what they have done with it. The chain of custody must be preserved or else the item cannot be used at trial.

Check Tampering – Type of fraudulent disbursement scheme in which the perpetrator physically prepares the fraudulent check. Usually, the perpetrator takes physical control of a check and makes it payable to himself through one of several methods. Most check tampering crimes fall into one of four categories: forged maker schemes, intercepted check schemes, concealed check schemes, and authorized maker schemes.

Chronemic Communication – Refers to the use of time in interpersonal relationships to convey meaning, attitudes, and desires. If the respondent is late in keeping an appointment, for example, this might convey a lack of interest in or avoidance of the interview.

Churning – Churning occurs when agents falsely tell customers that they can buy additional insurance for nothing by using built-up value in their current policies. In reality, the cost of the new policies frequently exceeds the value of the old ones.

Circumstantial Evidence – Evidence that tends to prove or disprove facts in issue indirectly, by inference. Many fraud cases are proved entirely by circumstantial evidence, or by a combination of circumstantial and direct evidence, but seldom by direct evidence alone. The most difficult element to prove in many fraud cases – fraudulent intent – is usually proved circumstantially, and necessarily so,

because direct proof of the defendant's state of mind, absent a confession or the testimony of a co-conspirator, is impossible.

Civil Monetary Penalty Law (CMPL) – The Civil Monetary Penalty Law (42 U.S.C. §1320a-7a) was passed to impose administrative sanctions against providers who defraud any federally funded program by filing false claims or other improper billing practices. Any person (including an organization, agency, or other entity, but excluding a beneficiary) that presents or causes to be presented a claim for a medical or other item or service that the person knows or should know the claim is false or fraudulent is subject to a civil monetary penalty.

Common Law – Consists of the usages and customs of a society as interpreted by the judiciary; it often is referred to as “judge-made” law.

Computer Crime – Illegal act conducted either against the computer (such as data alteration) or crimes in which the computer is an integral part of the improper act.

Computer Fraud – Any defalcation or embezzlement accomplished by tampering with computer programs, data files, operations, equipment, or media, and resulting in losses sustained by the organization whose computer system was manipulated. The distinguishing characteristic of computer fraud is that access occurs with the intent to execute a fraudulent scheme.

Computer Fraud and Abuse Act – A statute enacted in 1984, Title 18 U.S. Code, Section 1030 makes certain computer-related activity a specific federal offense. In brief, Section 1030 punishes any intentional, unauthorized access to a “protected computer” for the purpose of: obtaining restricted data regarding national security; obtaining confidential financial information; using a computer which is intended for use by the U.S. government; committing a fraud; or damaging or destroying information contained in the computer.

Computer Hacking – Prior to the newspapers using the term *hacker* to describe a computer criminal, the term was used to define a computer enthusiast. The term is now associated with unauthorized computer activity. Hacking or phreaking is basically the breaking into computers and telecommunications systems by learning the vulnerabilities of various hardware and software; and using a computer to systematically “guess” the telephone number, user's system identification, and password.

Computer Viruses – A computer virus is a program that contains instruction codes to attack software. Viruses are hidden computer programs that use all the computer's resources, thereby shutting down the system or slowing it down significantly. Computer viruses range from the relatively harmless (displaying a message or greeting) to shutdowns of entire computer networks for extended periods.

Computer-Assisted Crime – Use of computers instead of other means to break the law.

Conflict of Interest – Occurs when an employee, manager, or executive has an undisclosed economic or personal interest in a transaction that adversely affects that person's employer. As with other corruption frauds, conflict schemes involve the exertion of an employee's influence to the detriment of his company. In bribery schemes, fraudsters are paid to exercise their influence on behalf of a third party. Conflict cases, instead, involve self-dealing by an employee.

Corporate Fraud – Corporate fraud is any fraud perpetrated by, for, or against a business corporation. Corporate frauds can be internally generated (perpetrated by agents, employees, and executives of a corporation, for or against it, or against others) and externally generated (by others against the corporation, i.e., suppliers, vendors, customers).

COSO Report – The Committee of Sponsoring Organizations (COSO) was formed to support the implementation of the Treadway Commission findings. In 1992, the committee issued *Internal Control – Integrated Framework*. This report was a collaborative effort of the American Accounting Association, the American Institute of CPAs, the Financial Executives Institute, the Institute of Internal Auditors, and the Institute of Management Accountants.

Counterclaims – A claim filed by a defendant against the plaintiff in a civil suit. Popularly known as a “countersuit.”

Criteria-Based Statement Analysis – Analyzing the language used by the subject to assess its truthfulness.

Cross-Claim – An action or claim between co-parties, i.e., claims between two defendants or two plaintiffs.

Defalcation – The act of a defaulter; act of embezzling; failure to meet an obligation; misappropriation of trust funds or money held in any fiduciary capacity; failure to properly account for such funds. Commonly spoken of officers of corporations or public officials. (*Black’s Law Dictionary*, 1990.)

Defamation – The four elements of defamation are (1) a false statement of fact, (2) tending to subject the person to whom it referred to ill will or disrepute, (3) published to one or more persons, and (4) made without privilege.

Defense – An assertion by a defendant in a criminal or civil suit that seeks to explain away guilt or civil liability for damages.

Demonstrative Evidence – A tangible item that illustrates some material proposition (e.g., a map, a chart, a summary). It differs from real evidence in that demonstrative evidence was not part of the underlying event: it was created specifically for the trial. Its purpose is to provide a visual aid for the jury.

Deposition – Sworn testimony given by a party or witness upon questioning by counsel for one of the parties before trial and outside of court, usually in a lawyer’s office.

Direct Evidence – Includes testimony or other evidence that tends to prove or disprove a fact in issue directly, such as eyewitness testimony or a confession. See also **Circumstantial Evidence**.

Discovery – The formal process whereby the parties collect evidence and learn the details of the opposing case. Under federal rules, either party may take discovery regarding any matter, not privileged, that is relevant to the subject matter of the action, or that might lead to admissible evidence. The principal means of discovery are oral depositions, written interrogatories, and requests to produce documents.

Duty of Care – A corporate officer, director, or high-level employee, as well as other people in a fiduciary relationship, must conduct business affairs prudently with the skill and attention normally exercised by people in similar positions.

Duty of Loyalty – Requires that an employee/agent act solely in the best interest of the employer/principal, free of any self-dealing, conflicts of interest, or other abuse of the principal for personal advantage.

Economic Extortion – Economic extortion cases are the “Pay up or else . . .” corruption schemes; basically the flip side of bribery schemes. Instead of a vendor offering a payment to influence a decision,

an employee demands that a vendor pay him in order to make a decision in that vendor's favor. If the vendor refuses to pay, he faces some harm such as a loss of business with the extorter's company.

Electronic Data Interchange – Electronic Data Interchange (EDI) is the exchange of electronic data between computers in which there is no human interaction.

Electronic Funds Transfer (EFT) – An electronic funds transfer (EFT) system is a network of operations designed to move instantaneously funds on deposit in savings and checking accounts and those funds obtained through overdraft and credit arrangements to another account or institution. (*Bank Administration Manual*, Bank Administration Institute.)

Embezzlement – The wrongful appropriation of money or property by a person to whom it has been lawfully entrusted. Embezzlement implicitly involves a breach of trust, although it is not necessary to show a fiduciary relationship between the parties.

Employee Polygraph Protection Act – Prohibits the use of polygraphs by most private employers unless the employer is engaged in an ongoing investigation involving economic loss or injury to the employer in the employer's business and has a reasonable suspicion that the employee is involved in the incident.

Encryption – An encryption system is comprised of a cryptographic function, which scrambles an electronic transmission, and an inverse decrypt function, which restores the transmission to its original state. Encryption hardware and software can be used to scramble any communication by utilizing a complex mathematical formula. The only way to unscramble an encrypted message is to provide the unique answer "key," thus unlocking the message.

Evidence – Anything perceivable by the five senses, and any proof such as testimony of witnesses, records, documents, facts, data, or tangible objects legally presented at trial to prove a contention and induce a belief in the minds of a jury.

Exclusionary Rule – This rule commands that where evidence has been obtained in violation of the search and seizure protections guaranteed by the U.S. Constitution, the illegally obtained evidence cannot be used at the trial of the defendant. Under this rule, evidence which is obtained by an unreasonable search and seizure is excluded from admissibility under the Fourth Amendment, and this rule has been held to be applicable to the States. "Good faith exception" to the exclusionary rule provides that evidence is not to be suppressed under such rule where that evidence was discovered by officers acting in good faith and in reasonable, though mistaken, belief that they were authorized to take those actions. (*Black's Law Dictionary*, 1990.)

Expert Witness –Rule 702 of the Federal Rules of Evidence states: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case."

External Fraud Schemes – Fraud schemes that are committed by outside organizations, typically by individuals or groups of individuals against organizations.

Extortion – The obtaining of property from another with the other party's "consent" having been induced by wrongful use of actual or threatened force or fear. Fear might include the apprehension of possible economic damage or loss. A demand for a bribe or kickback also might constitute extortion.

Fair Credit Reporting Act – One of the primary statutes limiting the access to personal information is the federal Fair Credit Reporting Act (FCRA). This statute regulates the dissemination of consumer information to third parties by consumer reporting agencies. It prohibits the disclosure of any consumer credit report (the terms are defined in the statute) except in accordance with the Act. Its purpose is to regulate the activities and record keeping of mercantile credit, insurance, and employment investigation agencies and bureaus.

False Claims and Statements – Chapter 47 of Title 18, U.S. Code, contains a number of related provisions that punish false or fraudulent statements, orally or in writing, made to various federal agencies and departments. The principal statute is Section 1001 that prohibits such statements generally and overlaps with many of the more specific laws, such as Section 1014, that apply to false statements made on certain loan and credit applications.

False Imprisonment – Restraint by one person of the physical liberty of another without consent or legal justification.

False Pretenses – Illegally obtaining money, goods, or merchandise from another by fraud or misrepresentation. As a statutory crime, although defined in slightly different ways in the various jurisdictions, consists generally of these elements: (1) an intent to defraud (2) the use of false pretenses or representations regarding any existing facts, and (3) the accomplishment of the intended fraud by means of such false pretenses (*People v. Johnson*, 28 Mich. App. 10, 183 N.W.2d 813, 815, 816).

Fidelity Bond – A policy issued by many large insurance companies under which the insured entity is covered against losses caused by the dishonest or fraudulent acts of its employees.

Financial Statement Fraud – Fraud committed to falsify financial statements, usually committed by management, and normally involving overstating income or assets or understating liabilities or expenses.

Firewalls – Firewalls are advanced software programs which effectively “lock up” access to an Internet sight or e-mail transmission. Firewalls are designed to control the interface between a network and the Internet. This technology surveys incoming and outgoing transmissions between the network and the Internet, stopping any questionable transmission attempt to access a sensitive area.

Foreign Corrupt Practices Act – The provisions of the FCPA are found in Title 15, U.S. Code, §78m. The FCPA amended the 1934 Act to prohibit certain publicly held companies from making corrupt payments to foreign officials or political organizations. Other amendments to the Act make it illegal for any U.S. citizen to make such payments.

Forensic – Of or relating to the courts.

Fraud – Any intentional or deliberate act to deprive another of property or money by guile, deception or other unfair means.

Fraud Examination – A methodology for resolving fraud allegations from inception to disposition. More specifically, fraud examination involves obtaining evidence and taking statements, writing reports, testifying to findings, and assisting in the detection and prevention of fraud.

Fraud Theory Approach – The fraud theory approach begins with the assumption, based on the known facts, of what might have occurred. Then that assumption is tested to determine whether it is provable. The fraud theory approach involves the following steps, in the order of their occurrence: (1) analyze available data; (2) create a hypothesis; (3) test the hypothesis; (4) refine and amend the hypothesis.

Fraudulent Disbursement Schemes – Type of occupational fraud whereby an employee makes a distribution of company funds for a dishonest purpose. Examples of fraudulent disbursements include forging company checks, the submission of false invoices, doctoring timecards, and so forth.

Ghost Employee – Refers to someone on the payroll who does not actually work for the victim company. Through the falsification of personnel or payroll records a fraudster causes paychecks to be generated to a ghost. The fraudster or an accomplice then converts these paychecks. The ghost employee may be a fictitious person or a real individual who simply does not work for the victim employer. When the ghost is a real person, it is often a friend or relative of the perpetrator.

Grand Jury – Consists of 16 to 23 people sworn as jurors who meet in secret deliberation usually in biweekly or monthly sessions to hear witnesses and other evidence presented by prosecutors and to vote on indictments. An indictment or *true bill* must be concurred in by at least 12 jurors voting without the prosecutor present.

Horizontal Analysis – A technique for analyzing the percentage change in individual financial statement items from one year to the next. The first period in the analysis is considered the base, and the changes to subsequent periods are computed as a percentage of the base period.

Illegal Gratuities – Similar to bribery schemes, except there is not necessarily an intent to influence a particular business decision before the fact. In the typical illegal gratuities scenario, a decision is made which happens to benefit a certain person or company. The party who benefited from the decision then gives a gift to the person who made the decision. The gift could be anything of value. An illegal gratuity does not require proof of intent to influence.

Indictment – In the federal system, all offenses punishable by death must be charged by indictment; all felonies (generally crimes punishable by imprisonment for a year or more) must be prosecuted by indictment, unless the defendant waives the requirement, in which case the prosecution may proceed by the filing of an *Information*.

Information – A charge signed only by the prosecutor without the involvement of the grand jury. See also **Indictment**.

Insider Trading – Consists of using nonpublic information relating to market securities trades.

Interrogatories – Questions that are submitted to an opposing party in a lawsuit. Interrogatories cannot be given to anyone other than a party to a suit. Questions are submitted to the witness in writing. If no objection is given, then the party must answer the question in writing. All answers must be sworn to under oath.

Interview – A question-and-answer session designed to elicit information. It differs from an ordinary conversation in that the interview is structured, not free-form, and is designed for a purpose. An interview might consist of only one question or a series of questions.

Jencks Act – The Jencks Act, 18 U.S.C. §3500, permits the defendant to obtain, prior to cross-examination, a government witness' prior statements (or portions thereof) that relate to the subject matter of his testimony on direct examination. However, the statute also protects statements from discovery until after the direct examination has been completed.

Jurisdiction – Authority of a court to hear a particular type of case. A probate court, for instance, only has jurisdiction to hear cases related to wills and other probate matters. Lower trial courts (such as a justice of the peace court) may only have jurisdiction to hear matters under a certain dollar amount, e.g., cases with less than \$5,000 in controversy.

Kickbacks – In the commercial sense, refers to the giving or receiving anything of value to influence a business decision without the employer’s knowledge and consent.

Kinesic Interview – Type of interview methodology that is different than traditional interview methods, because the interviewer is not necessarily looking for a confession from the interview subject. Instead of searching for information from the subject, the interviewer is attempting to assess whether the subject is telling the truth. In the book *The Kinesic Interview Technique*, authors Frederick C. Link and D. Glen Foster define the kinesic interview technique as “[An interview technique] used for gaining information from an individual who is not willingly or intentionally disclosing it.”

Kinetic Communication – Involves the use of body movement to convey meaning. For example, a person who feels shame normally will drop the eyes to avoid the glance of another. This is not only to avoid seeing disapproval, but to conceal personal shame and confusion.

Kiting – The wrongful practice of taking advantage of the float, the time that elapses between the deposit of a check in one bank and its collection at another. Method of drawing checks by which the drawer uses funds which are not his by drawing checks against deposits which have not yet cleared through the banks. Kiting consists of writing checks against a bank account where funds are insufficient to cover them, hoping that before they are presented the necessary funds will be deposited. (*Black’s Law Dictionary*, 1990.)

Land Flip – Practice of buying and selling real estate very quickly, often several times a day or at least within a few months. With each sale the price is increased. The sales often are transacted between related parties or with shell corporations. Their sole purpose is to increase the selling price. Ultimately, it becomes insupportable.

Larceny – The wrongful taking of money or property of another with the intent to convert or to deprive the owner of its possession and use.

Libel – Form of defamation whereby the offending material is communicated by writing or pictures as opposed to purely oral means.

Mail Fraud – The federal mail fraud statute is Title 18, U.S. Code, §1341. The gist of the offense is the use of the mails as an integral part of a scheme to defraud. The mailing does not itself need to contain the false and fraudulent representations, as long as it is an integral part of the scheme. What is integral or incidental depends on the facts of each case; generally a mailing that helps advance the scheme in any significant way will be considered sufficient.

Mediation – Process whereby an impartial third-person assists the parties in reaching a resolution of the dispute. The mediator does not decide who should win, but instead works with the parties to reach a mutually agreeable settlement.

Miranda Rights – Refers to the Supreme Court ruling in the landmark case of *Miranda v. Arizona*, 384 U.S. 436 (1966), that the police must give the following warnings before interrogating any suspect held in custody that (1) the suspect has the right to remain silent; (2) any statements can be used against him at trial; (3) the suspect has a right to the assistance of an attorney; and (4) an attorney will be appointed to represent the suspect if he cannot afford to retain one.

Misapplication – Wrongful taking or conversion of another’s property for the benefit of someone else.

Misappropriation – The unauthorized, improper, or unlawful use of funds or other property for purpose other than that for which intended.

Misrepresentation of Material Facts – The deliberate making of false statements to induce the intended victim to part with money or property. The elements normally include (1) a material false statement; (2) knowledge of its falsity; (3) reliance on the false statement by the victim; and (4) damages suffered.

Money Laundering – The disguising of the existence, nature, source, ownership, location, and disposition of property derived from criminal activity. The “washing” of money includes all forms of illegal activities. In most instances the goal is to conduct transactions in cash (currency) in such a way as to conceal the true nature of transactions.

Multi-Level Marketing (MLM) – Use of individual sellers and a graduated payment scale to move products. Illegal MLMs use the product as a front while basing their return on new people recruited into the plan.

Net Worth – The amount by which assets exceed liabilities.

Noncompetition Agreement – An agreement whereby an employee agrees not to work for competing companies within a certain period of time after leaving.

Nondisclosure Agreement – A written agreement which provides that all proprietary, confidential, or trade secret information learned by the party in the course of business dealings must be kept confidential and must not be disclosed to any third-parties.

Norming – Sometimes referred to as calibrating, norming is the process of observing behavior before critical questions are asked, as opposed to doing so during questioning. People with truthful attitudes will answer questions one way; those with untruthful attitudes generally will answer them differently.

Occupational Fraud and Abuse – The use of one’s occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization’s resources or assets. Simply stated, occupational frauds are those in which an employee, manager, officer, or owner of an organization commits fraud to the detriment of that organization. The three major types of occupational fraud are Corruption, Asset Misappropriation, and Fraudulent Statements (which include financial statement schemes).

Off-Book Frauds – Involves vendor and vendor employees engaging in bribes, scams, kickbacks, conflicts of interest, bribery, and corruption. Detected by means of tips or complaints from sources either inside or outside the company.

On-Book Frauds – Involves employees manipulating accounting records. Detected by means of basic audit tests in high-risk areas using original source documents.

Oversight Committee – An oversight committee should be established to review uniformity in decision making. Further, it should act as a tribunal for the presentation of additional information to change or assist management in making appropriate decisions regarding fraud investigations.

Paralinguistic Communication – Involves the use of volume, pitch, and voice quality to convey meaning. One of the basic differences between written and verbal communication is that oral speech gives the full range of nonverbal accompaniment. For example, a “no” answer might not really mean no; it depends on the way in which the “no” is said.

Parol Evidence – Oral or verbal evidence; that which is given by word of mouth; the ordinary kind of evidence given by witnesses in court. (*Black’s Law Dictionary*, 1990.)

Parol Evidence Rule – This evidence rule seeks to preserve integrity of written agreements by refusing to permit contracting parties to attempt to alter import of their contract through use of contemporaneous oral declarations. (*Black's Law Dictionary*, 1990.)

Ponzi Scheme – The term *Ponzi* refers to illegal operations which use financial instruments of some sort to extract money from victims; there are few or no actual investments being made, just funds passing up a ladder.

Privacy Act of 1974 – Restricts information about individuals, both employees and non-employees, that might be gathered by *government agencies*. This information might include a person's education, finances, medical history, criminal history, employment history, and identifying information (fingerprint, voice print, or photograph). The employee might have access to the information unless it is investigatory material compiled for law enforcement purposes, statistical records, or material compiled solely for determining suitability, eligibility, or qualification for federal service or promotion.

Probable Cause – Reasonable cause; having more evidence for than against. A reasonable ground for belief in certain alleged facts. A set of probabilities grounded in the factual and practical considerations which govern the decisions of reasonable and prudent persons and is more than mere suspicion but less than the quantum of evidence required for conviction. (*Black's Law Dictionary*, 1990.)

Proxemic Communication – Use of interpersonal space to convey meaning. The relationship between the interviewer and respondent is both a cause and effect of proxemic behavior. If the distance between the interviewer and the respondent is greater, there is more of a tendency for them to watch each other's eyes for clues to meaning.

Psychological Theories – Refers to theories of behavior rooted in psychology and which are based on the view that criminal behavior is the product of mental processes.

Pyramid Scheme – A scheme in which a buyer or participant is promised a payment for each additional buyer or participant recruited by that person.

Qui Tam Suit – A *qui tam* suit is one in which a private individual sues on behalf of the government to recover damages for criminal or fraudulent actions committed against the government. It is a civil not a criminal suit. Most qui tam actions are brought under the False Claims Act, 31 USC §3729 et seq.

Racketeer Influenced and Corrupt Organizations Act (RICO) – Title 18, U.S. Code, §1961, et. seq. The statute outlaws the investment of ill-gotten gains in another business enterprise; the acquisition of an interest in an enterprise through certain illegal acts; and the conduct of the affairs of an enterprise through such acts. Criminal penalties include stiff fines and prison terms as well as the forfeiture of all illegal proceeds or interests. Civil remedies include treble damages, attorney fees, dissolution of the offending enterprise, and other penalties.

Ratio Analysis – A means of measuring the relationship between two different financial statement amounts. The relationship and comparison are the keys to the analysis.

Real Evidence – Refers to physical objects which may be introduced as evidence at a legal proceeding. A canceled check, an invoice, a ledger, letters and documents are real evidence, but the term includes any physical evidence.

Relevant Evidence – Rule 401 of the Federal Rules of Evidence defines *relevant evidence* as evidence “having any tendency to make the existence of any fact that is of consequence to determination of the action more probable or less probable than it would be without the evidence.” In other words, relevant evidence is evidence that tends to prove or disprove a fact in issue.

Routine Activities Theory – A variation of classical theory, this theory holds that both the motivation to commit crime and the supply of offenders is constant. There always will be a certain number of people motivated by greed, lust, and other forces inclining toward lawbreaking.

Search Warrants – Issued by a judge upon presentation of probable cause to believe the records are being used or have been used in the commission of a crime. An affidavit usually is used to support the request for the search warrant. The affidavit must describe in detail the reason(s) the warrant is requested, along with the place the evidence is thought to be kept. Courts cannot issue search warrants without sufficient cause; the Fourth Amendment to the Constitution protects individuals against unreasonable searches and seizures.

Sentencing Guidelines – The Sentencing Reform Act of 1984 provided for the development of guidelines for the sentencing of individual and organizational offenders. The individual guidelines became effective in 1987, and the guidelines for organizations in 1991.

Shell Companies – Fictitious business entities created for the sole purpose of committing fraud. They may be nothing more than a fabricated name and a post office box that an employee uses to collect disbursements from false billings.

Skimming – Removal of cash from a victim entity prior to its entry in an accounting system. Employees who skim from their companies steal sales or receivables before they are recorded in the company books. Skimming schemes are known as “off-book” frauds, meaning money is stolen before it is recorded in the victim organization’s accounts.

Sliding – Sliding is the term used for including additional coverages in the insurance policy without the knowledge of the insured. The extra charges are hidden in the total premium and since the insured is unaware of the coverage, few claims are ever filed. For example, motor club memberships, accidental death, and travel accident coverages can usually be slipped into the policy without the knowledge of the insured.

Social Control Theory – Travis Hirschi, in his 1969 book, *Causes of Delinquency*, first articulated the *social control theory*. Essentially, control theory argues that the institutions of the social system train and press those with whom they are in contact into patterns of conformity. The theory rests on the thesis that to the extent a person fails to become attached to the variety of control agencies of the society, his/her chances of violating the law are increased.

Social Learning Theories – These theories hold that criminal behavior is a function of the way people absorb information, viewpoints, and motivations from others, most notably from those to whom they are close, such as members of their peer group. Social learning theorists believe that all people have the potential to commit crime if they are exposed to certain kinds of circumstances.

Social Process Theories – These theories hold that criminality is a function of individual socialization and the social-psychological interactions people have with the various organizations, institutions, and processes of society. Though they differ in many respects, the various social process theories all share one basic concept: all people regardless of their race, class, or gender, have the potential to become delinquents or criminals.

Social Structure Theories – Theories of criminology that concentrate on the kinds of societies that generate particular levels of crime, for example, why is crime so low in Japan and so high in the United States? Such theorists argue that people living in equivalent social environments seem to behave in a similar, predictable fashion.

Subpoena Duces Tecum – A legal order requiring the production of documents.

Suspicious Activity Reports – Effective April 1, 1996, the Office of the Comptroller of the Currency (OCC) requires national banks to submit a Suspicious Activity Report (SAR) under certain circumstances (12 C.F.R. §21.11, as amended). Reports are required if there is a known or suspected criminal violation committed against the bank or involving a transaction conducted through the bank.

Tax Fraud – “... the actual intentional wrongdoing, and the intent required ...to evade a tax believed to be owing. Fraud implies bad faith, intentional wrongdoing, and a sinister motive. It is never imputed or presumed and the courts will not sustain findings of fraud upon circumstances which at most create only suspicion. 14 Mertens, *Law of Federal Income Taxation*, sec. 55.21, page 64, (1991 Rev); *Ross Glove Co. v. Commissioner*, 60 TC 569 (1973).

Telemarketing Fraud – Used to refer to fraud schemes which are perpetrated over the telephone; most often consists of calls by the telemarketer to the victim to deceive the victim into purchasing goods or services.

Trade Secret – Includes secret formulas and processes, but also any other proprietary information, such as customer and price lists, sales figures, business plans, or any other confidential information that has a value to the business and would be potentially harmful if disclosed.

Treadway Commission – The National Commission on Fraudulent Financial Reporting (commonly known as the Treadway Commission) was established in 1987 with the purpose of defining the responsibility of the auditor in preventing and detecting fraud. The commission was formed by the major professional auditing organizations – the American Institute of Certified Public Accountants, the Institute of Internal Auditors, and the National Association of Accountants.

Trespass – The unauthorized, intentional or negligent entry upon the property of others. A claim of trespass might arise from a search of an employee’s locker. It is particularly applicable to surveillance at an employee’s home.

Twisting – Twisting is the replacement, usually by high pressure sales techniques, of existing policies for new ones. The primary reason, of course, is for the agent to profit since first year sales commissions are much higher than commissions for existing policies.

Uniform Commercial Code Filings – In order to obtain a perfected security interest in personal property, a lender must file a Uniform Commercial Code (UCC) statement with the Secretary of State or the county. Banks, finance companies and other lenders will generate records or recorded filings of financial transactions conducted with individuals and businesses, such as purchases of household furniture, appliances, boats and yachts, automobiles, aircraft, and business equipment.

Uniform Crime Reports – The Federal Bureau of Investigation (FBI) compiles statistics on the extent of crime in the United States in a document called the Uniform Crime Report (UCR). The report is put together on the basis of information voluntarily submitted by more than 15,000 law enforcement departments. This includes virtually every significant public policing agency in the country.

Venue – The geographical area covered by the court. A trial court in Dallas County, Texas, for example, can only hear cases which have some connection with either parties or events that occurred in that county. Venue is technically an element of the court’s jurisdiction.

Vertical Analysis – A technique for analyzing the relationships between the items on an income statement, balance sheet, or statement of cash flows by expressing components as percentages.

Whistleblower – Employees who report illegal or unethical conduct of their employers. Federal law and many state laws provide, in some instances, protection to employees who report improper or illegal acts to government authorities. Most of these laws protect the employee from any adverse employment action or retaliatory action from the employer.

Wire Fraud – The federal wire fraud statute is Title 18, U.S. Code, §1343. It prohibits transmission “by means of wire, radio, or television communication in interstate or foreign commerce, any writings, signs, signals, pictures, or sounds for the purpose of executing such scheme or artifice.” The wire fraud statute often is used in tandem with mail fraud counts in federal prosecutions. Unlike mail fraud, however, the wire fraud statute requires an interstate or foreign communication for a violation.

Yellow Book Standards – Standards for audits of government organizations, programs, activities, and functions, and of government assistance received by contractors, nonprofit organizations, and other non-government organizations developed by the Comptroller General of the United States, General Accounting Office (GAO). These standards are by and large taken from generally accepted accounting principles. However, *Government Auditing Standards* also known as the *Yellow Book*, go beyond the AICPA standards. Generally accepted government auditing standards (GAGAS) are to be followed by auditors and audit organizations when required by law, regulation, agreement, contract, or policy.

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FRAUD AND CASH RECEIPTS: COMMON FRAUDS AND INTERNAL CONTROLS

BY GLENN HELMS, PH.D., CPA, CIA, CISA, CFF, CITP

Solutions

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SOLUTIONS

CHAPTER 1

Solutions to Practice Questions

1. Many scenarios could be presented for irregularities. Here are two:
 - If sales personnel have unrestricted access to the warehouse, then sales personnel could obtain merchandise that is requested by legitimate customers. The sales personnel could charge a lower price for the inventory and also ship it to the customer if the customer pays cash directly to the sales personnel.
 - If sales personnel have unrestricted access to the warehouse then sales personnel could steal the inventory and auction it online.
2. Many scenarios could be presented for errors. Here are two:
 - The sales personnel could inadvertently pick and ship the wrong items.
 - The sales personnel could pick the wrong number of correct items.

Both of these errors could occur, as there is no independent checking of what was picked by the shipping department.

3. If long-outstanding sales orders are not periodically investigated, then there is a possibility that the company might lose customers because orders cannot be filled in a timely manner. The investigation might show that there are problems in various other areas of the company such as inventory management (not having sufficient number of various types of goods in stock). There might not be a problem in inventory management, but there could be a problem with the shipping department not packing and shipping goods received from the pickers in a timely manner. This one simple procedure, reviewing long-outstanding sales orders, could be a red flag for more serious problems in the fulfillment process.

Solutions to Knowledge Checks

1.
 - a. Incorrect. The sales department receives a purchase order and this is the start of the revenue cycle.
 - b. Correct. The sales department cancels outstanding purchase orders when goods are shipped.
 - c. Incorrect. The shipping department notifies accounts receivable to initiate the billing process.
 - d. Incorrect. The accounts receivable department prepares sequentially numbered invoices upon receiving the shipping documents.

- 2.
- Correct. The term 2/10 net 30 means the customer will get a 2 percent discount if he or she pays the balance within 10 days of the invoice date.
 - Incorrect. The term 2/10 net 30 means the customer will get a 2 percent discount if he or she pays the balance within 10 days of the invoice date, not 30 days.
 - Incorrect. The term 2/10 net 30 means the customer will get a 2 percent discount if he or she pays the balance within 10 days of the invoice date, not 20 days.
 - Incorrect. The term 2/10 net 30 means the customer will get a 2 percent discount if he or she pays the balance within 10 days of the invoice date, not 15 days.
- 3.
- Correct. Sales returns and allowances is a contra-revenue account.
 - Incorrect. A credit sale is where the company allows a customer to make payment(s) in the future instead of paying cash at the time of sale.
 - Incorrect. Purchase returns and allowances is a contra-purchases account.
 - Incorrect. Costs of goods sold is an expense account.
- 4.
- Incorrect. A control where the credit department reviews new customers' credit reports should be done prior to goods being purchased.
 - Correct. A control where the credit department reviews new customers' credit reports achieves the control objective that sales are made to valid customers.
 - Incorrect. A control where the credit department reviews new customers' credit reports does not provide assurance that revenue transactions are recorded. Accounting for the numerical sequence of transactions (shipping documents) achieves this objective.
 - Incorrect. A control where the credit department reviews new customers' credit reports does not provide assurance that revenue transactions are recorded in the correct period. An example of a control activity that addresses that objective is when a review of outstanding sales orders is made.

CHAPTER 2

Solution to Practice Question

- The five financial statement assertions management makes about classes of transactions and events are as follows:
 - Occurrence* – Transactions and events that have been recorded have occurred and pertain to the entity.
 - Completeness* – All transactions and events that should have been recorded have been recorded.
 - Accuracy* – Amounts and other data relating to recorded transactions and events have been recorded appropriately.
 - Cutoff* – Transactions and events have been recorded in the correct accounting period.
 - Classification* – Transactions and events have been recorded in the proper accounts.

Solutions to Fraud Case Exercise

- a. Some controls follow (the list is not exhaustive):
- There is a reconciliation of the tickets sold per IT management control reports with the actual tickets dispensed from the roll of tickets.
 - Customers are issued tickets (receipts) at the time of sale.
 - Tickets are canceled after use (admission to the theater) by another employee – the ticket taker.
 - The theater manager reconciles total sales using an overall analytical review procedure.
 - The theater manager will investigate variances that exceed an established tolerable amount.
 - The corporate office reviews the daily report and performs a reconciliation similar to the theater manager's.
 - The corporate office accesses the company's bank account on a daily basis to determine if the cash was deposited to the bank.
 - The theater tickets are sequentially numbered.
 - The theater tickets indicate the particular performance for which the ticket is valid.
- b. Errors and irregularities could occur in the following ways (the list is not exhaustive):
- A customer lies about his or her age and obtains a discounted ticket for which the customer was not entitled.
 - A customer could stay in the theater to view another movie without paying for the movie.
 - The cashier could be in collusion with the ticket taker and customer. The customer would pay a nominal amount for the movie (much lower than the stated price) and the cashier would split the nominal amount with the ticket taker, who would admit the customer for "free."
 - The customer could be in collusion with the ticket taker and pay a nominal amount (bribe) to the ticket taker to grant the customer access to the theater.
 - The theater manager could lap a day's deposit. The theater manager would steal one day's deposit and make up for it with the subsequent day's deposit. As long as the deposit appears on the bank account within a day or two after the cash sales, then this would not necessarily be considered a suspect transaction by corporate management.
 - A tired ticket taker accepts a matinee ticket from a customer for a higher-priced afternoon or evening performance.
 - The theater manager and the cashier could be in collusion. The theater manager could purchase a stock roll of tickets and a computer with a printer that the cashier uses to print tickets for cash sales. The theater manager and the cashier would divide the unrecorded cash sales between them. The ticket taker would be unable to see that the tickets are counterfeit. In case the theater manager is ever audited, the valid roll of tickets will reconcile to the recorded cash sales.
 - The cashier could purchase a stock roll of tickets and tell customers and the ticket taker that the cashier's computer is having problems and will not issue tickets. The cashier would "sell" the cash-paying customers tickets and keep the cash.

c. The control activities provided are not exhaustive as to all possible answers.

Miller's, Inc.					
Objectives					
	Tickets sold are for valid customers (occurrence)	All cash ticket sales are recorded (completeness)	All ticket sales are at the correct amount (accuracy)	All cash ticket sales are recorded in the proper period (cutoff)	All ticket sales are correctly classified (classification)
Control Activities					
The numerical sequence of tickets is accounted for by the theater manager		X		X	
A computer report classifies sales by category (debit, credit, or cash) each day		X	X		X
Daily reconciliations of sales with deposits are made by the theater manager and corporate headquarters		X	X	X	X

Solutions to Knowledge Checks

1.

- a. Incorrect. Job-cost records are typically used by a manufacturing entity, not a retail entity.
- b. Correct. Job-cost records would typically be used by a manufacturing entity.
- c. Incorrect. Job-cost records would typically be used by a manufacturing entity, not a service entity.
- d. Incorrect. Job-cost records would typically be used by a manufacturing entity, not a not-for-profit entity.

2.

- a. Incorrect. Sales transactions being recorded in the proper period achieves the cutoff objective
- b. Correct. The control that items have a barcode that will be scanned at the checkout achieves the objective that recorded sales are at the correct amount for items sold (accuracy objective).
- c. Incorrect. All sales transactions are recorded achieves the completeness objective.
- d. Incorrect. Sales transactions being made to valid customers achieves the occurrence objective.

3.

- a. Correct. Even in a system with adequate segregation of duties there is still a risk that controls can be circumvented due to collusion.
- b. Incorrect. Even in a system with adequate segregation of duties there is still a risk that controls can be circumvented due to collusion. Inadequate training is not a risk that controls can be circumvented if there is adequate segregation of duties.
- c. Incorrect. Inadequate supervision is not a risk that controls can be circumvented if there is adequate segregation of duties.
- d. Incorrect. Inadequate independent reconciliation is not a risk that controls can be circumvented if there is adequate segregation of duties.

4.

- a. Incorrect. In a manufacturing entity, the manufactured goods should be inspected by quality control. This control may need to be observed by internal auditors for testing purposes, but the internal audit function itself is not generally a control.
- b. Correct. In a manufacturing entity, the manufactured goods should be inspected by quality control.
- c. Incorrect. Management does not perform quality control functions. Rather, management performs planning and controlling activities, such as establishing budgets and performing variance analysis.
- d. Incorrect. Purchasing does not perform quality control functions. Rather, purchasing performs procurement functions such as obtaining raw materials for production.

CHAPTER 3

Solutions to Practice Questions

1. Suggested answer:

Because there is no accounting for the numerical sequence of sales orders, an order could be lost. This lost order might not be discovered until the optometrist's office contacted Blomquist, Inc. to ascertain the status of an order that was not filled in a timely manner. The "real-world" company noted that they believed the cost of accounting for the numerical sequence of the sales orders was not worth the benefit. Management stated that they received very few complaints about lost sales orders or not having filled orders in a timely manner.

There is no indication that the information that is entered into the IT system is reviewed to provide assurance that the prescription and other data were entered correctly. Eyeglasses might be produced that do not meet the prescription specifications. Even if the company has a quality-control department that compares the finished product with the specifications contained in the IT system, the company might deliver a product that was not in accordance with the original specifications.

Even if the sales-order form information is entered correctly into the IT system, there is still a risk that the employee who took the order made transcription or other errors on the sales-order form that eventually resulted in the manufacture of a product that did not meet the customer specifications.

2. Management makes the following assertions about account balances:

- *Existence.* Assets, liabilities, and equity interests exist.
- *Rights and obligations.* The entity holds or controls the rights to assets, and liabilities are the obligations of the entity.
- *Completeness.* All assets, liabilities, and equity interests that should have been recorded have been recorded.
- *Valuation and allocation.* Assets, liabilities, and equity interests are included in the financial statements at appropriate amounts and any resulting valuation or allocation adjustments are appropriately recorded.

3. Management makes the following assertions about presentation and disclosure:

- *Occurrence.* Disclosed events and transactions have occurred and pertain to the entity.
- *Completeness.* All disclosures that should have been included in the financial statements have been included.
- *Classification and understandability.* Financial information is appropriately presented and described, and disclosures are clearly expressed.
- *Accuracy/ valuation and allocation.* Financial and other information is disclosed fairly and at appropriate amounts.

Solutions to Knowledge Checks

1.
 - a. Incorrect. Common-carrier information is not generally included on a sales quote as there is no need for it.
 - b. Correct. Common-carrier information is contained on a bill of lading.
 - c. Incorrect. An open items statement contains all activity that has occurred in a customer's account, including payments, outstanding invoices, and an aging of past-due amounts.
 - d. Incorrect. An aging schedule contains all current and delinquent accounts receivable.

2.
 - a. Correct. Businesses generally pay by invoice.
 - b. Incorrect. Although they can pay by statements, businesses typically pay by invoice.
 - c. Incorrect. A sales order is not paid by businesses but is one of several source documents to create an invoice.
 - d. Incorrect. A bill of lading is a shipping document and is not used by businesses to pay vendors.

3.
 - a. Correct. Rights and obligations is an assertion about account balances.
 - b. Incorrect. Classification and understandability is an assertion about presentation and disclosure.
 - c. Incorrect. Accuracy is an assertion about classes of transactions and events.
 - d. Incorrect. Occurrence is an assertion about classes of transactions and events and presentation and disclosure.

4.
 - a. Correct. Aged accounts receivable reports are generally prepared monthly.
 - b. Incorrect. Although they could be prepared daily, aged accounts receivable reports are generally prepared monthly.
 - c. Incorrect. Although they could be prepared quarterly, aged accounts receivable reports are generally prepared monthly.
 - d. Incorrect. Although they could be prepared weekly, aged accounts receivable reports are generally prepared monthly.

CHAPTER 4

Solutions to Practice Questions

1. A remittance advice is a turnaround document – it is an output of the IT billing system and is used as input to the IT cash receipts processing system. Two internal control features associated with a remittance advice are that
 - The customer can write in the amount remitted on this form which will then be used to serve as a part of the control total in processing cash receipts.
 - The customer's account number is contained on the form, and can be read electronically by the company's IT equipment. Transcription errors that occur when account numbers are entered manually are avoided.

2. An internal control feature provided by distributing a monthly statement is that it serves as a negative confirmation that the customer agrees with the information on the statement (such as charges, cash payments, and more).

Solutions to Knowledge Checks

1.

- a. Incorrect. Ideally, for proper segregation of duties, cash-receipts mail should be opened by two mail-receipts clerks.
- b. Correct. Cash-receipts mail should be opened by two mail-receipts clerks.
- c. Incorrect. Internal auditors do not perform transaction processing functions. Internal auditors evaluate and test transaction processing systems.
- d. Incorrect. Ideally, for proper segregation of duties, cash receipts mail should be opened by two mail-receipts clerks. The cashier is responsible for preparing the daily deposit.

2.

- a. Correct. Checks are stamped “for deposit only” by mail-receipts personnel.
- b. Incorrect. Checks should already be stamped “for deposit only” before being routed to the cashier or depositor.
- c. Incorrect. Checks should not be sent to the credit department for endorsement. This would be a violation of separation of duties between the access to assets and authorization functions.
- d. Incorrect. The accounts receivable clerk is responsible for posting the transaction to the subsidiary ledger and does not gain possession of the checks during the cash receipt process.

3.

- a. Incorrect. The cashier should not be performing bank reconciliations. This would create overlapping duties between access to assets and the independent reconciliation functions.
- b. Correct. Bank reconciliations should be performed by an employee independent of the cash collections process.
- c. Incorrect. Internal auditors do not perform control activities, such as reconciling the bank statement. Rather the internal auditor evaluates and tests controls.
- d. Incorrect. The mail-receipts clerks should not be performing bank reconciliations. This would not be adequate segregation of duties. There would be overlap in the access to assets and the independent reconciliation functions.

4.

- a. Correct. A lockbox system to process mail requires that cash-receipts mail be sent to the bank’s post office box.
- b. Incorrect. A lockbox system to process mail requires that cash-receipts mail be sent to the bank’s post office box. Mail sent to the company’s post office box would not have the same controls as a bank’s lockbox.
- c. Incorrect. A lockbox system requires that cash-receipts mail be sent to the bank’s post office box, not the vendor’s post office box.
- d. Incorrect. A lockbox system requires that cash-receipts mail be sent to the bank’s post office box, not the company’s physical location mailbox.

CHAPTER 5

Solutions to Practice Questions

1. Suggested answer:

- Performing substantive analytical procedures relating to revenue using disaggregated data, for example, comparing revenue reported by month and by product line or business segment during the current reporting period with comparable prior periods. Computer-assisted audit techniques may be useful in identifying unusual or unexpected revenue relationships or transactions.
- Confirming with customers certain relevant contract terms and the absence of side agreements, because the appropriate accounting often is influenced by such terms or agreements. For example, acceptance criteria, delivery and payment terms, the absence of future or continuing vendor obligations, the right to return the product, guaranteed resale amounts, and cancellation or refund provisions often are relevant in such circumstances.
- Inquiring of the entity's sales and marketing personnel or in-house legal counsel regarding sales or shipments near the end of the period and their knowledge of any unusual terms or conditions associated with these transactions.
- Being physically present at one or more locations at period end to observe goods being shipped or being readied for shipment (or returns waiting processing) and performing other appropriate sales and inventory cutoff procedures.
- For those situations for which revenue transactions are electronically initiated, authorized, processed, and recorded, testing controls to determine whether they provide assurance that recorded revenue transactions occurred and are properly recorded.

2. Suggested answer:

- Credit memos to accounts receivable after the end of the period
- Customer complaints about amounts billed
- Discrepancies in accounts receivable
- Unusual journal entries
- Missing or altered documents
- Lack of cash flow from operations when income is reported
- Unusual reconciling differences between the sales journal and the general ledger
- Sales to customers in the last month at more favorable terms than previous months
- Sales with affiliates and related parties
- Pre-dated or post-dated transaction
- Journal entries made to the sale or revenue account directly—not posted from accounts receivable subledger or the sales journal
- Large or unusual adjustments to sales accounts made just prior to or just after the end of the period
- Channel stuffing
- Sales to nonexistent customers
- Phony sales to legitimate customers
- Billing for items not shipped or ordered
- Double billing
- Bill and hold
- Earnings process not complete—transactions do not meet revenue recognition criteria

Solutions to Knowledge Checks

1.

- a. Incorrect. Intentional omission of transactions from the financial statements is an example of fraudulent financial reporting.
- b. Incorrect. Misapplication of accounting principles is an example of fraudulent financial reporting.
- c. Correct. Embezzling receipts is an example of misappropriation of assets.
- d. Incorrect. Intentional inappropriate recognition of revenue is an example of fraudulent financial reporting.

2.

- a. Correct. Significant declines in customer demand are an example of a pressure to commit fraudulent financial reporting.
- b. Incorrect. Significant bank accounts in tax-haven jurisdictions for which there is no clear business justification is an example of an opportunity to commit fraudulent financial reporting.
- c. Incorrect. Known history of violations of laws and regulations is an example of a rationalization to commit fraudulent financial reporting.
- d. Incorrect. Significant, unusual, or highly complex transactions are examples of opportunities to commit fraudulent financial reporting.

3.

- a. Incorrect. There are five, not four, suggested steps.
- b. Correct. There are five suggested steps.
- c. Incorrect. There are five, not six, suggested steps.
- d. Incorrect. There are five, not seven, suggested steps.

4.

- a. Incorrect. Spreadsheet input controls ensure that reconciliations occur to make sure that data is input completely and accurately.
- b. Correct. Spreadsheets can be password protected to restrict access.
- c. Incorrect. Change controls address the process for making changes to a spreadsheet.
- d. Incorrect. Spreadsheet version controls ensure that only current and approved versions of spreadsheets are being used by creating naming conventions and directory structures.

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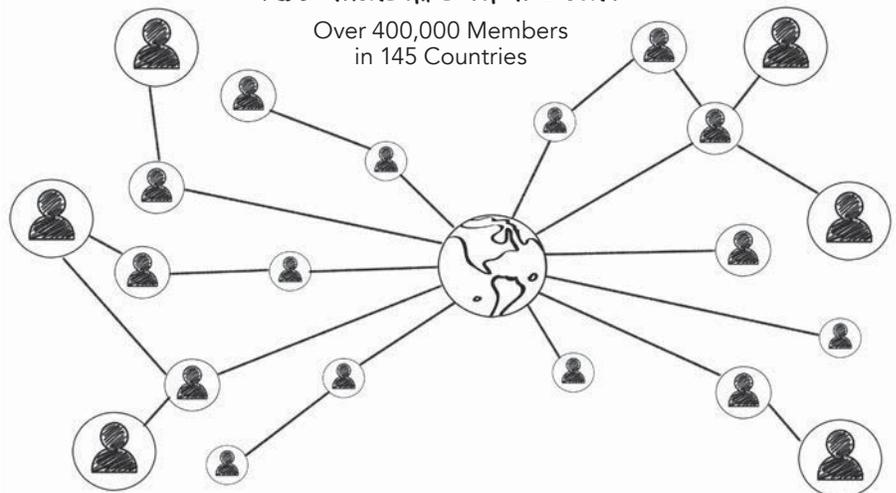


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