Chapter 8: Financial Statement Analysis and Managerial Accounting

Overview

This chapter presents two different topics, financial statement analysis and managerial accounting. The concepts discussed are different, so be sure students understand that.

Lecture Notes

A. Financial Statement Analysis

1. Interpreting the Balance Sheet
   The financial statement shows the financial position of an entity at a specific point in time.

   a. The balance sheet is a formal statement of the **Accounting Equation** (Assets – Liabilities = Owners' Equity).

      1. Assets are the economic resources from which an owner can expect to receive benefits now or in the future.
      2. Liabilities are obligations or debts of an entity that are owed to other parties.
      3. Owners' equity (or stockholders' equity) represents the resources invested in the business.

   b. **Proper Heading** for a balance sheet includes:

      1. The name of the company
      2. The title of the statement
      3. The date of the statement

   c. **Assets** are classified on the balance sheet.

      1. Current assets are those used within one year or one accounting period; they include cash, temporary investments, notes receivable, accounts receivable, inventory (*review extended information regarding types and valuation of inventory in the text)*, and prepaid expenses.
      2. Investments are held for longer than a year, and they (hopefully) earn profits. Investments include property, plant, and equipment which are also known as fixed assets (*Review extended information regarding depreciation in the text.)*
      3. Intangible assets are long-lived and have no tangible existence; they represent the rights the company owns.
      4. Other assets do not fit any other classification.

   d. **Liabilities** are classified on the balance sheet.

      1. Current liabilities are those that will be paid within a year or one accounting period; they include accounts payable, notes payable, accruals, and the current portion of long-term debt.

2. Long-term liabilities do not come due in the next accounting cycle; this includes mortgages, bonds, and long-term notes payable.

3. Other liabilities do not fit in any other category.

e. **Owners' Equity** is classified on the balance sheet.

1. A sole proprietorship has one owner's equity account called capital that reflects all increases and decreases in equity.

2. A partnership has a capital account for each partner that shows individual contributions and distributions.

3. A corporation is owned by stockholders.
   - Capital stock includes common stock and preferred stock.
   - Retained earnings includes income-dividends.

2. Interpreting the Income Statement
The income statement summarizes the operations of a business over a period of time.

a. **Revenue** ($) is earned through business operation. The revenue realization principle says that revenue is only recognized after the exchange or service has occurred.

b. **Expenses** are incurred to earn revenue or related to business operations.

1. Incurring expenses are those necessary to earn the revenue.

2. Operating expenses are those related to the normal operation of a business.

c. **Net Income Related to Revenue and Expenses** is calculated by subtracting the Expenses from the Revenue.

d. **Gains and Losses** are not part of the normal business operations.

1. Gains represent revenue earned that is not part of normal business operations; it may be from sale of a fixed asset for more than its book value. The result is an increase in owners' equity and net income.

2. Losses represent expenses that are not part of normal business operations; they may be from sale of a fixed asset for less than its book value. The result is a decrease in owners' equity and net income.

e. **Net Income Related to Gains and Losses** is calculated using this formula:

Net Income = Revenue – Expenses + Gains – Losses

f. The **Heading** includes name of the company, title of the statement, and period of time it covers.

g. There are different **Forms** of an income statement.

1. A multiple-step income statement includes operating income and expenses, other income and expenses, net income before and after taxes, and earnings per share.

2. A single-step income statement includes revenues and gains, expenses and losses.

3. Comprehensive Income
   Comprehensive income includes all changes in owners' equity during a period except those resulting from investments by or distributions to owners.
   a. **Types of Comprehensive Income** include all revenues, expenses, gains, and losses included in net income as well as gains/losses reported in the stockholders' equity section.
   b. **Other Comprehensive Income** includes gains/losses that are not part of net income but affect stockholders' equity; displayed in different ways.
4. Statement of Retained Earnings
   The statement of retained earnings shows the changes in retained earnings from one period to another.
   a. **Increases in Retained Earnings** come from a net income.
   b. **Decreases in Retained Earnings** come from a net loss or dividends.
5. Statement of Changes in Capital
   The statement of changes in capital shows the changes in the capital account from one period to another.
   1. **Increases in Capital** result from a net income or additional contributions.
   2. **Decreases in Capital** result from a net loss or withdrawal.
6. Statement of Cash Flows
   The statement of cash flows explains difference between the beginning and ending cash balances. It presents information about cash flows from operating, investing, and financing activities.
   a. **Operating Activities** include transactions that relate to the calculation of net income; these items are usually related to the production and sale of goods and services.
   b. **Investing Activities** include investments of company's cash.
   c. **Financing Activities** include transactions with the company's owners and long-term creditors.
   d. **Noncash Investing and Financing Activities** are also presented.
   e. **Presentation of Statement of Cash Flows** is done in a direct or indirect method.
      1. Direct method involves calculation and presentation of individual cash inflows and outflows. The cash inflows and outflows are calculated by converting the information on the income statement from an accrual basis back to a cash basis. *Review the examples in the text.*
      2. Indirect method involves adjusting the net income for items included that do not affect cash. Net Income + Additions – Deductions = Net Cash Flow from Operating Activities.
7. Computing and Interpreting Ratios
   a. **Comparative Statements** present data for several years with percent changes; they allow comparisons of current performance with previous performance.

b. **Ratio Analysis** studies relationship between amounts on financial statements.

1. Liquidity ratios are concerned with a firm's ability to meet current obligations or short-term financing. They include the current ratio, quick ratio, receivables turnover, inventory turnover, and working capital. *Review the text for examples.*
2. Debt ratios are concerned with a firm's policy on long-term debt; examples include the debt-to-equity ratio, debt-to-total assets ratio, and the times-interest-earned ratio.
3. Profitability ratios measure a firm's efficiency in generating profits in relation to sales and investment; these are the ratios that interest investors. They include earnings per share, dividend yield, price-earnings ratio, gross profit margin, return on investment, and book value.

B. Managerial Accounting

1. Budgeting
A budget is a detailed plan showing proposed acquisitions and uses of financial resources over a period of time.

a. **Types of Budgets** vary. *Review the details and examples in the text.*

1. The sales budget is the foundation for all other budgets; it must include the quantity and timing of sales.
2. The production budget shows the quantity and timing of units required to be produced during the period to meet the sales and inventory requirements.
3. The raw materials budget plans the timing and quantity of materials purchases.
4. The labor budget shows the quantity of labor needs expected during the period.
5. The manufacturing overhead budget includes both fixed and variable components.
6. The selling expense budget is composed of fixed and variable elements.
7. The administrative expense budget is composed of fixed and variable components.
8. The cash budget is very important; the timing and quantity of cash inflows and outflows need to be estimated to provide sufficient funds to continue operations.
9. The master budget combines the sales, production, and expense budgets. That becomes the plan or objective of the period; it often is approved by the board of directors.
10. The capital budget is a long-range budget that includes plans for additional product lines or plant/equipment items.

b. **Factors Considered** in preparing budgets include:

1. Participative budgeting allows those responsible for implementing the budget to have input in its preparation. It is used to help employees take ownership of the budget and see it as a goal.
2. Zero-base budgeting requires managers start at zero budget levels each year.
3. Continuous budgeting provides for continual review and updates on a monthly basis; this way the budget always covers 12 months.
4. Budgets are also used as control tools.

c. **Budget Variation and Analysis** takes place once the period that the budget covers has ended. The performance of the firm is evaluated by comparing budgeted items to actual results. *Review the examples in the text.*

1. Static budgets compare results to budgets for planned level of activity only.
   - Efficiency, levels of sales quantity, and changes in prices are lumped into one amount.
   - Used for sales price and sales volume variance.
2. Flexible budgets have varying amounts designated for different levels of activity.

2. Preparing Cost Justifications

a. **Unit Cost** is calculated by dividing the output by the total cost.

b. Costs can be classified into **Fixed, Variable, and Mixed**.

1. Variable costs vary directly with the level of output; they increase proportionately with production.
2. Fixed costs remain constant despite changes in volume of output.
3. Mixed (or semivariable) costs vary with the level of activity, but the variation is less than a proportionate amount.
4. Fixed and variable costs retain characteristics within a relevant range.

c. **Cost-Volume Profit Analysis** is also called breakeven analysis. It is a powerful tool for budgeting, forecasting, pricing, and decision-making. *Review the examples in the text.*

1. Contribution margin: Sales – Variable Costs = Contribution Margin – Fixed Costs = Net Income.
2. Breakeven analysis or breakeven point is calculated by
   Sales Revenue = Variable Expenses + Fixed Expenses.
3. Contribution margin approach to breakeven analysis: (Sales – Variable Expenses) / Sales.
4. Cost-volume profit analysis can be used for planning; by changing the variables for sales price, fixed expenses, and variable expenses, the effects of changes on profitability can be forecast.
5. Graphical analysis *can be viewed in the text*.

d. **Reporting for a Manufacturing Company**

1. The balance sheet includes three inventory accounts.

- Raw materials inventory
- Work-in-progress inventory
- Finished goods inventory

2. The income statement classifies costs.
   - Product costs include direct materials, direct labor, and manufacturing overhead costs.
   - Period costs include those not related to manufacturing a unit of product.

e. **Cost Accounting** must be determined to satisfy legal and reporting requirements of the firm and management's need for information.

1. Job order costing is used when production can be divided into separate projects or batches. *Review the text for sample divisions and accounting examples.*

2. Process costing is used when a continuous manufacturing process is used to produce like projects; it is a complicated technique.

3. Standard Costing and Variance Costing
A standard cost is a predetermined estimate of the cost per unit for materials, labor, and manufacturing overhead; cost that should be incurred to produce a product.

a. **Management by Exception** is a standard costing system that allows managers to direct their attention to those areas that require corrective action. Managers do not spend time reviewing areas that do not have much variance.

b. **Variance** is the difference between standard cost and actual cost. *Review the text for specific examples.*

4. Forecasting
Forecasting is the prediction of a value of a variable in the future; it can be based on past values or expert judgment.

a. **Types of Forecasts** can include long-, medium-, or short-term forecasts that include:

1. Sales forecasts are the first step in preparing a budget.

2. Capital expenditures forecasts are required to plan for funding.

3. Product demand forecasts are useful for preparing sales forecasts and determining the introduction of new products/dropping older ones.

4. Other forecasts might be developed to aid management in meeting goals and objectives.

b. **Factors** to consider when creating forecasts include:

1. Methods may be quantitative or qualitative.

2. Accuracy in forecasting may be reached better with more than one value for a forecasted item.

3. Performance monitoring is done to determine the accuracy and provide input for future forecasts.

c. **Proforma Statements** can be prepared for planning and evaluation.

Additional Resources for Students:

Recommended readings (no texts should be more than two years old):

- Ainsworth, Penne, Dan Deines, R. David Plumlee, and Cathy Xanthaky Larson. *Introduction to Accounting: An Integrated Approach*. Richard D. Irwin, Inc.
- Fess and Warren. *Accounting Principles*. South-Western Publishing Co.
- Horngren, Charles T., Gary L. Sundem, and William O. Stratton. *Introduction to Management Accounting*. Prentice-Hall, Inc.
- Jones, Kumen, Michael Werner, Katherene P. Terrell, and Robert Terrell. *Introduction to Management Accounting: A User Perspective*. Prentice-Hall, Inc.
- Larson, Kermit D. and Barbara Chiappetta. *Fundamental Accounting Principles*. Richard D. Irwin, Inc.
- Needles, Belverd E. Jr., Henry R. Anderson, James C. Caldwell, and Sherry K. Mills. *Principles of Accounting*. Houghton Mifflin Company.
- Weygandt, Jerry, Donald Kieso, and Walter Kell. *Accounting Principles*. John Wiley & Sons, Inc.

Current issues of periodicals or business publications are also an excellent resource. Some of the following periodicals have an accompanying Web site.

Current Periodical	***Web Address***
IAAP Complete Office Handbook	http://www.iaap-hq.org/products/handbook.htm
Modern Office Technology	
OfficePro	http://www.iaap-hq.org/officepro/toc.htm
The Office	
Financial Accounting Standards Board	http://www.fasb.org
American Institute of CPAs	http://www.aicpa.org
American Association of Accounting	http://aaahq.org