

- Narrative methods include the critical incident technique and the essay approach.
- Training managers and employees on how to conduct performance appraisals can contribute to the effectiveness of a performance management system.
- Many performance appraisal problems are caused by a number of different rater errors.
- The appraisal feedback interview is a vital part of any appraisal system, and the reactions of both managers and employees must be considered when evaluating the system.

## CRITICAL THINKING CHALLENGES

1. Describe how an organizational culture and the use of performance criteria and standards affect the remaining components of a performance management system.
2. Suppose you are a supervisor. What errors might you make when preparing the performance appraisal on a clerical employee? How might you avoid those errors?
3. Based on your experiences, as well as the chapter information, what are some good "rules of thumb" for conducting successful performance appraisal interviews?
4. Review the performance appraisal process and appraisal form used by a current or former employer, and compare them with those provided by other students. Also review other appraisal issues by going to [www.workforce.com](http://www.workforce.com) and searching for articles on *performance appraisals*. Develop a report suggesting changes to make the performance appraisal form and process you reviewed more effective.
5. As the new HR Director of a company in the behavioral health industry, you have the responsibility to develop a performance management system. You need to present a business case to senior executives that the performance management system does not stand alone and must be integrated into the company's strategic plan, business needs, and measurements. For information on performance management best practices, review various publications in the articles tab at [www.insala.com](http://www.insala.com).
  - A. Given several key practices for a successful performance management system, which ones should be implemented first?
  - B. Identify key measurements to transition the company from the current system of looking at personality factors to a new system of looking at performance factors.

## CASE

### Performance Management at Netflix

Netflix has a unique approach to the performance of its employees. It employs a culture with few rules and no tolerance for average or poor performers. Workers can earn top-of-the-market pay but no bonuses, development, training, or career planning. Vacation is at the discretion of the employee. The focus is on what people get done, not how many hours or days they worked. Netflix officials maintain that when employee discretion rules, employees can be trusted to do the right things. Reed Hastings, the CEO, says "We are more focused on the absence

of procedure—managing through talented people rather than a rule book."

There is no policy on vacation time. Workers decide, for example, how much vacation and sick leave to take. The only rules are being out sick for more than five days requires a doctor's excuse, and time-off beyond 30 days per year requires HR approval. The HR Director interviewed an applicant who expressed surprise at the vacation time approach. He said, "I am a workaholic and never take time off. I need someone to make sure I take

my time or I won't use it." He was told, "We hire adults and if you do not know how to manage your vacations you won't fit in."

If someone does something wrong, they are told it was wrong. After that they either "get it" or they are gone. The CEO says, "We try to be fair, but the length of an employee's Netflix career is not our primary concern. If someone is not extraordinary we let them go." If a person is rated as average or mediocre during the performance review process, he or she is dismissed. The HR officer notes that really good workers get frustrated at working with average performers. They feel it is important to get rid of those who do not perform even though other companies often do not.

Annual 360-degree reviews provide "direct and honest feedback." Another HR official notes, "In many companies when I want you to leave, my job is to prove you're incompetent. Here I write a check. We exchange severance for a release." The company does not "coddle" employees and does not ask how someone

"feels." When they are dismissed people usually find new jobs quickly and to date no one has sued.

The culture is designed to initiate and maintain creativity. If efficiency was the goal, more structure and rules would be needed, the CEO notes. As the company gets bigger, it may be more difficult to allow the same amount of freedom. As one observer noted, "Good people can do things and can be relied on to police themselves." The lack of rules coupled with a serious performance culture makes Netflix an interesting place to work.<sup>51</sup>

## QUESTIONS

1. Would you find working at Netflix exciting or frightening? Why?
2. Can everyone in a company be above average? If so, how can you tell if someone is truly above average?
3. Are performance evaluations important in this culture?

## SUPPLEMENTAL CASES

### Performance Management Improvements for Bristol-Myers Squibb

This case identifies how performance management systems might be redesigned. (For the case, go to [www.cengage.com/management/mathis](http://www.cengage.com/management/mathis).)

### Building Performance through Employee Participation

The case outlines what was done at Jewelers Mutual Insurance in allowing employees to have a say in

performance management. (For the case, go to [www.cengage.com/management/mathis](http://www.cengage.com/management/mathis).)

### Unequal/Equal Supervisors

This case identifies the consequences of giving appraisal ratings that may not be accurate. (For the case, go to [www.cengage.com/management/mathis](http://www.cengage.com/management/mathis).)

## NOTES

1. Adapted from Bob Campbell, et al., "Performance Management: Rewired for Recovery," *Workspan*, 07/2010, 42-48.
2. Paul Falcone, "Held Hostage by Underperformers," *HR Magazine*, October 2012, 92-93.
3. Andrew R. McIlvaine, "There's Got to Be a Better Way," *Human Resource Executive*, July/August 2012, 13-15. Samuel A. Culbert, "The Case for Killing Performance Reviews," *Human Resource Executive Online*, July 16, 2012, 1-2.
4. Jonathan A. Segal, "Performance Management Blunders," *HR Magazine*, November 2010, 75-77.
5. Jamie A. Gruman and Alan M. Saks, "Performance Management and Employee Engagement," *Human*

- The general equation for finding the future value of a current cash flow (PV) for any number of compounding periods per year is

$$FV_N = PV(1 + I_{PER})^{\text{Number of periods}} = PV\left(1 + \frac{I_{NOM}}{M}\right)^{MN}$$

where

$I_{NOM}$  = Nominal quoted interest rate

$M$  = Number of compounding periods per year

$N$  = Number of years

- An amortized loan is paid off with equal payments over a specified period. An amortization schedule shows how much of each payment constitutes interest, how much is used to reduce the principal, and the unpaid balance at the end of each period. The unpaid balance at Time  $N$  must be zero.
- A "growing annuity" is a stream of cash flows that grows at a constant rate for a specified number of years. The present and future values of growing annuities can be found with relatively complicated formulas or, more easily, with an *Excel* model.
- *Web Extension 4A* explains the tabular approach.
- *Web Extension 4B* provides derivations of the annuity formulas.
- *Web Extension 4C* explains continuous compounding.

## QUESTIONS

(4-1) Define each of the following terms:

- PV;  $I$ ; INT;  $FV_N$ ;  $PVA_N$ ;  $FVA_N$ ; PMT;  $M$ ;  $I_{NOM}$
- Opportunity cost rate
- Annuity; lump-sum payment; cash flow; uneven cash flow stream
- Ordinary (or deferred) annuity; annuity due
- Perpetuity; consol
- Outflow; inflow; time line; terminal value
- Compounding; discounting
- Annual, semiannual, quarterly, monthly, and daily compounding
- Effective annual rate (EAR or EFF%); nominal (quoted) interest rate; APR; periodic rate
- Amortization schedule; principal versus interest component of a payment; amortized loan

(4-2) What is an *opportunity cost rate*? How is this rate used in discounted cash flow analysis, and where is it shown on a time line? Is the opportunity rate a single number that is used to evaluate all potential investments?

(4-3) An *annuity* is defined as a series of payments of a fixed amount for a specific number of periods. Thus, \$100 a year for 10 years is an annuity, but \$100 in Year 1, \$200 in Year 2, and \$400 in Years 3 through 10 does *not* constitute an annuity. However, the entire series *does* contain an annuity. Is this statement true or false?

(4-4) If a firm's earnings per share grew from \$1 to \$2 over a 10-year period, the *total growth* would be 100%, but the *annual growth rate* would be *less than* 10%. True or false? Explain.

(4-5) Would you rather have a savings account that pays 5% interest compounded semiannually or one that pays 5% interest compounded daily? Explain.

**SELF-TEST PROBLEMS** Solutions Appear in Appendix A

(ST-1) Assume that 1 year from now you plan to deposit \$1,000 in a savings account that pays a nominal rate of 8%.

Future Value

- If the bank compounds interest annually, how much will you have in your account 4 years from now?
- What would your balance be 4 years from now if the bank used quarterly compounding rather than annual compounding?
- Suppose you deposited the \$1,000 in 4 payments of \$250 each at the end of Years 1, 2, 3, and 4. How much would you have in your account at the end of Year 4, based on 8% annual compounding?
- Suppose you deposited 4 equal payments in your account at the end of Years 1, 2, 3, and 4. Assuming an 8% interest rate, how large would each of your payments have to be for you to obtain the same ending balance as you calculated in part a?

(ST-2) Assume that 4 years from now you will need \$1,000. Your bank compounds interest at an 8% annual rate.

Time Value of Money

- How much must you deposit 1 year from now to have a balance of \$1,000 at Year 4?
- If you want to make equal payments at the end of Years 1 through 4 to accumulate the \$1,000, how large must each of the 4 payments be?
- If your father were to offer either to make the payments calculated in part b (\$221.92) or to give you a lump sum of \$750 one year from now, which would you choose?
- If you will have only \$750 at the end of Year 1, what interest rate, compounded annually, would you have to earn to have the necessary \$1,000 at Year 4?
- Suppose you can deposit only \$186.29 each at the end of Years 1 through 4, but you still need \$1,000 at the end of Year 4. What interest rate, with annual compounding, is required to achieve your goal?
- To help you reach your \$1,000 goal, your father offers to give you \$400 one year from now. You will get a part-time job and make 6 additional deposits of equal amounts each 6 months thereafter. If all of this money is deposited in a bank that pays 8%, compounded semiannually, how large must each of the 6 deposits be?
- What is the effective annual rate being paid by the bank in part f?

(ST-3) Bank A pays 8% interest, compounded quarterly, on its money market account. The managers of Bank B want its money market account's effective annual rate to equal that of Bank A, but Bank B will compound interest on a monthly basis. What nominal, or quoted, rate must Bank B set?

Effective Annual Rates

**PROBLEMS** Answers Appear in Appendix B

Easy Problems 1-8

(4-1)

Future Value of a Single Payment

If you deposit \$10,000 in a bank account that pays 10% interest annually, how much will be in your account after 5 years?

(4-2)

Present Value of a Single Payment

What is the present value of a security that will pay \$5,000 in 20 years if securities of equal risk pay 7% annually?

(4-3)

Interest Rate on a Single Payment

Your parents will retire in 18 years. They currently have \$250,000, and they think they will need \$1 million at retirement. What annual interest rate must they earn to reach their goal, assuming they don't save any additional funds?

(4-12)

Future Value of an Annuity

Find the *future value* of the following annuities. The first payment in these annuities is made at the *end* of Year 1, so they are *ordinary annuities*. (Notes: See the Hint to Problem 4-9. Also, note that you can leave values in the TVM register, switch to Begin Mode, press FV, and find the FV of the annuity due.)

- \$400 per year for 10 years at 10%
- \$200 per year for 5 years at 5%
- \$400 per year for 5 years at 0%
- Now rework parts a, b, and c assuming that payments are made at the *beginning* of each year; that is, they are *annuities due*.

(4-13)

Present Value of an Annuity

Find the *present value* of the following *ordinary annuities* (see the Notes to Problem 4-12).

- \$400 per year for 10 years at 10%
- \$200 per year for 5 years at 5%
- \$400 per year for 5 years at 0%
- Now rework parts a, b, and c assuming that payments are made at the *beginning* of each year; that is, they are *annuities due*.

(4-14)

Uneven Cash Flow Stream

- Find the present values of the following cash flow streams. The appropriate interest rate is 8%. (*Hint:* It is fairly easy to work this problem dealing with the individual cash flows. However, if you have a financial calculator, read the section of the manual that describes how to enter cash flows such as the ones in this problem. This will take a little time, but the investment will pay huge dividends throughout the course. Note that, when working with the calculator's cash flow register, you must enter  $CF_0 = 0$ . Note also that it is quite easy to work the problem with *Excel*, using procedures described in the Chapter 4 *Tool Kit*.)

| Year | Cash Stream A | Cash Stream B |
|------|---------------|---------------|
| 1    | \$100         | \$300         |
| 2    | 400           | 400           |
| 3    | 400           | 400           |
| 4    | 400           | 400           |
| 5    | 300           | 100           |

- What is the value of each cash flow stream at a 0% interest rate?

(4-15)

Effective Rate of Interest

Find the interest rate (or rates of return) in each of the following situations.

- You *borrow* \$700 and promise to pay back \$749 at the end of 1 year.
- You *lend* \$700 and receive a promise to be paid \$749 at the end of 1 year.
- You borrow \$85,000 and promise to pay back \$201,229 at the end of 10 years.
- You borrow \$9,000 and promise to make payments of \$2,684.80 at the end of each of the next 5 years.

(4-16)

Future Value for Various Compounding Periods

Find the amount to which \$500 will grow under each of the following conditions.

- 12% compounded annually for 5 years
- 12% compounded semiannually for 5 years
- 12% compounded quarterly for 5 years
- 12% compounded monthly for 5 years

- a. How large must the deposit be?
- b. How much will be in the account immediately after you make the first withdrawal? After the last withdrawal?

(4-25) Repaying a Loan While Mary Corens was a student at the University of Tennessee, she borrowed \$12,000 in student loans at an annual interest rate of 9%. If Mary repays \$1,500 per year, then how long (to the nearest year) will it take her to repay the loan?

(4-26) Reaching a Financial Goal You need to accumulate \$10,000. To do so, you plan to make deposits of \$1,250 per year—with the first payment being made a year from today—into a bank account that pays 12% annual interest. Your last deposit will be less than \$1,250 if less is needed to round out to \$10,000. How many years will it take you to reach your \$10,000 goal, and how large will the last deposit be?

(4-27) Present Value of a Perpetuity What is the present value of a perpetuity of \$100 per year if the appropriate discount rate is 7%? If interest rates in general were to double and the appropriate discount rate rose to 14%, what would happen to the present value of the perpetuity?

(4-28) PV and Effective Annual Rate Assume that you inherited some money. A friend of yours is working as an unpaid intern at a local brokerage firm, and her boss is selling securities that call for 4 payments of \$50 (1 payment at the end of each of the next 4 years) plus an extra payment of \$1,000 at the end of Year 4. Your friend says she can get you some of these securities at a cost of \$900 each. Your money is now invested in a bank that pays an 8% nominal (quoted) interest rate but with quarterly compounding. You regard the securities as being just as safe, and as liquid, as your bank deposit, so your required effective annual rate of return on the securities is the same as that on your bank deposit. You must calculate the value of the securities to decide whether they are a good investment. What is their present value to you?

(4-29) Loan Amortization Assume that your aunt sold her house on December 31, and to help close the sale she took a second mortgage in the amount of \$10,000 as part of the payment. The mortgage has a quoted (or nominal) interest rate of 10%; it calls for payments every 6 months, beginning on June 30, and is to be amortized over 10 years. Now, 1 year later, your aunt must inform the IRS and the person who bought the house about the interest that was included in the two payments made during the year. (This interest will be income to your aunt and a deduction to the buyer of the house.) To the closest dollar, what is the total amount of interest that was paid during the first year?

Challenging Problems 30–34

(4-30) Loan Amortization Your company is planning to borrow \$1 million on a 5-year, 15%, annual payment, fully amortized term loan. What fraction of the payment made at the end of the second year will represent repayment of principal?

(4-31) Nonannual Compounding

- a. It is now January 1. You plan to make a total of 5 deposits of \$100 each, one every 6 months, with the first payment being made *today*. The bank pays a nominal interest rate of 12% but uses *semiannual* compounding. You plan to leave the money in the bank for 10 years. How much will be in your account after 10 years?
- b. You must make a payment of \$1,432.02 in 10 years. To get the money for this payment, you will make 5 equal deposits, beginning today and for the following 4 quarters, in a bank that pays a nominal interest rate of 12% with *quarterly compounding*. How large must each of the 5 payments be?

(4-32) Nominal Rate of Return Anne Lockwood, manager of Oaks Mall Jewelry, wants to sell on credit, giving customers 3 months to pay. However, Anne will have to borrow from her bank to carry the accounts receivable. The bank will charge a nominal rate of 15% and will compound monthly.