

CHAPTER 2

Risk Identification and Evaluation

True-False

1. Loss exposure checklists cannot be tailored to specific industries.
ANSWER: F
2. A financial statement analysis would include a review of a long range strategic plan.
ANSWER: T
3. Outside suppliers can be added to a company's flowcharts.
ANSWER: T
4. Risk managers can discover previously unidentified loss exposures from on-site inspections.
ANSWER: T
5. Risk management information systems can analyze claim payments, accident causes, and safety programs. (The risk manager does these things, not the RMIS.)
ANSWER: F
6. Risk managers should leave contract analysis for potential risks to the company's attorney.
ANSWER: F
7. If all risk identification methods are properly used, all loss exposures can be identified.
ANSWER: F
8. The maximum possible loss to a firm with \$200,000 in assets is \$200,000.
ANSWER: F
9. Liability losses outside the United States are not as likely to happen as those inside the country.
ANSWER: T
10. The binomial distribution is used to evaluate partial losses.
ANSWER: F
11. The main difference between the Poisson distribution and the normal distribution is that one involves continuous variables while the other involves discrete variables.
ANSWER: F
12. As the number of exposure units increases the loss exposure becomes less risky, all else the same.
ANSWER: T
13. A loss exposure and a pure risk are the same thing.
ANSWER: F
14. One method to identify loss exposures is the Poisson analysis.

ANSWER: F

15. Risk mapping considers both risk frequency and risk severity.

ANSWER: T

Matching

- | | |
|---------------------------------------|--|
| a. Adjusted return on capital | 1. _____ involves analyzing each item on a firm's income statement and balance sheet regarding risks that may be present. |
| b. contractual liability | 2. A/An _____ maps out the physical flow of goods and can be analyzed with respect to the types of risks that may affect the goods at each point. |
| c. expected value | 3. A/An _____ enumerates various specific sources of loss. |
| d. financial statement analysis | 4. The _____ of a group of losses represents the average of all losses. |
| e. flowchart | 5. The _____ represents the middle value when values are arranged from smallest to largest. |
| f. law of large numbers | 6. The _____, which is the square root of the variance, is a measure of variability. |
| g. loss exposure checklist | 7. Under the concept of _____, one's liability may be imputed to another by contract. |
| h. maximum possible loss | 8. The _____ of a collection of observations is defined as the observed value with the largest relative frequency. |
| i. mean | 9. Among other things, a _____ analyzes past losses and forecasts future losses with the use of computers. |
| j. median | 10. The _____ states that the greater the number of exposure units insured, the greater the accuracy in the prediction of future losses by the insurer. |
| k. mode | 11. The _____ is another term that describes the mean of a group of values. |
| l. risk management information system | 12. By calculating the _____, the firm can determine the extent to which the firm is exposed to a particular loss. |
| m. standard deviation | 13. _____ analysis constructs probability distributions of risks and combinations of risks to estimate the risk of loss at different probability levels. |
| n. Value at risk | 14. _____ assesses how much capital would be required to keep the probability of bankruptcy below a specified level. |

ANSWER:

1	d	6	m	11	c
2	e	7	b	12	h
3	g	8	k	13	n
4	i	9	l	14	a
5	j	10	f		

Multiple Choice

1. Which approach is not used by risk managers to identify and evaluate risks?
 - a. contract analysis
 - b. risk mapping
 - c. financial discrimination
 - d. on-site inspections.

ANSWER: C

2. Which method would be more useful to discover a dollar estimate of losses?
 - a. flowcharts
 - b. financial statement analysis
 - c. contract analysis
 - d. statistical analysis.

ANSWER: B

3. Which combination of methods would be best to identify as many loss exposures as possible for an organization?
 - a. flowcharts and contract analysis
 - b. on-site inspections, statistical analysis, and contract analysis
 - c. financial statement analysis, statistical analysis, and on-site inspections
 - d. all the methods combined.

ANSWER: D

4. The Goode Company has a plant in Newark, New Jersey, and a plant in upstate New York. The company has had many prior damage losses due to riots in the Newark plant in the past, but no similar losses in the New York plant. The possibility of the riot losses in the New York plant are considered remote. There have been reports of community tensions in Newark recently. What is the maximum probable loss due to riots to the plants?
 - a. There is no maximum probable loss because nothing has happened yet
 - b. The maximum probable loss is complete damage to both plants
 - c. The maximum probable loss is minor damage to the plant in Newark
 - d. The maximum probable loss is complete destruction of the plant in Newark.

ANSWER: C

5. In the past, Tracie's Ceramics has averaged 5 injuries among her 30 employees per year. What's the probability of an employee injury this year?
 - a. 0.1667

- b. 16.67
- c. 6.67
- d. none of the above.

ANSWER: A

6. Which of the following uses is not a usual function of a RMIS?
- a. claims management
 - b. report generation
 - c. catastrophe prediction
 - d. adjuster performance monitoring.

ANSWER: C

7. Consider the following numbers that range from 10 to 40 (10, 14, 23, 23, 30, 36, 40) and their probabilities (.20, .10, .05, .20). Name the median, mean, mode, and the expected value respectively.
- a. 23, 23, 23, and 25
 - b. 23, 24, 23, and 25.3
 - c. 23, 24.3, 24, and 26
 - d. 23, 25.3, 23, and 30.

ANSWER: A

8. What is the best number of exposure units for Cofield Drugs in estimating the actual loss frequency of their 100-vehicle automobile fleet?
- a. 100
 - b. 92
 - c. 1,000
 - d. infinite.

ANSWER: D

9. The Cookie Company (CC) has 1,200 employees and the chance of an injury to employees is 0.05. Suitmaker Lauren Alexander (LA) has 750 employees and the chance of an injury to employees is 0.08. The possible variation of losses for both are 34 and 40, respectively. What is the objective risk of both companies, and which is more risky?
- a. 46.6% for CC, 56.7% for LA; LA is more risky
 - b. 56.6% for CC, 66.7% for LA; LA is more risky
 - c. 56.6% for CC, 46.7% for LA; CC is more risky
 - d. 46.6% for CC, 66.7% for LA; CC is more risky

ANSWER: B

10. Sharlene, the risk manager of Chief Rocking Records, has been asked to assist the corporate strategy team in planning a new compact disk factory. The team wants Sharlene's input on how many CDs they should produce. Sharlene knows the losses are distributed normally, and the

probability of loss is 8%. She will use 2 standard deviations for the calculations. What is the number of exposure units needed for the actual loss to be within 10% of the expected?

a. 4,300

b. 4,600

c. 4,900

d. infinite.

ANSWER: B

11. Which theoretical distribution would be most appropriate to use for a large number of exposure units (over 50) and the probability of loss is very small?

a. normal distribution

b. binomial distribution

c. Poisson distribution

d. fourier distribution.

ANSWER: C

12. Which theoretical distribution would be most appropriate to use for a small number of exposure units (under 50) if there is no probability of a partial loss?

a. normal distribution

b. binomial distribution

c. Poisson distribution

d. fourier distribution.

ANSWER: B

13. Which measure of central tendency is used most often by risk managers?

a. median

b. mode

c. standard deviation

d. mean.

ANSWER: D

14. Sharon, the risk manager of Tracie's Ceramics, wants to know more about the employee injuries at her firm. One loss was a wrist sprain that has a probability of 0.06. Another was a back sprain with a probability of 0.07. Yet another was overinhalation of a hazardous substance with a probability of 0.02. The other two were slips and falls with a probability of 0.13. If the amounts of the losses were \$700, \$3,000, \$2,500, \$950, and \$950, respectively, what is the expected value of an employee injury loss for that year?

a. \$500

b. \$749

c. \$549

d. \$1,249.

ANSWER: C

15. Dawson Products had 20 losses in 1999, 21 in 2000, 43 in 2001, 38 in 2002, and 29 in 2003. What is the standard deviation of losses?

a. 20.37

- b. 333.56
- c. 414.8
- d. 151

ANSWER: A