Chapter 3
Fundamentals of Risk Management

■ Overview

You’ve probably practiced personal risk management without even realizing it. You may have decided to purchase auto insurance (risk transfer), decided not to drive on an icy road (risk avoidance), decided to use your seat belt (loss control) and your physical damage insurance may have a deductible (risk retention). Just as individuals practice risk management, so do small businesses, universities, municipalities, and corporations. This chapter provides an introduction to risk management in general and a discussion of personal risk management in particular. After defining risk management and discussing the objectives of risk management, the risk management process is examined. The risk management process consists of: identifying loss exposures, analyzing the loss exposures, selecting appropriate techniques for treating the loss exposures, and implementing and monitoring the risk management program.

■ Learning Objectives

After studying this chapter, you should be able to:
• Define risk management and explain the objectives of risk management.
• Describe the steps in the risk management process.
• Explain the major risk control techniques, including: avoidance, loss prevention, and loss reduction.
• Explain the major risk financing techniques, including retention, noninsurance transfers, and insurance.
• Apply the principles of risk management to a personal risk management program.
• Define the following:
  - Association or group captive
  - Avoidance
  - Captive insurer
  - Cost of risk
  - Deductible
  - Excess insurance
  - Loss exposure
  - Loss frequency
  - Loss prevention
  - Loss reduction
  - Loss severity
  - Manuscript policy
  - Maximum possible loss

  - Noninsurance transfers
  - Personal risk management
  - Probable maximum loss
  - Retention
  - Retention level
  - Risk control
  - Risk financing
  - Risk management
  - Risk management manual
  - Risk management policy statement
  - Risk retention group
  - Self-insurance
  - Single parent captive (pure captive)
I. Meaning of Risk Management

II. Objectives of Risk Management
   A. Pre-loss Objectives
   B. Post-loss Objectives

III. Steps in the Risk Management Process
   A. Identify Loss Exposures
   B. Measure and Analyze the Loss Exposures
   C. Select the Appropriate Combination of Techniques for Treating the Loss Exposures
      1. Risk Control
         a. Avoidance
         b. Loss Prevention
         c. Loss Reduction
      2. Risk Financing
         a. Retention
         b. Noninsurance Transfer
         c. Insurance
      3. Which Techniques Should be Used?
   D. Implement and Monitor the Risk Management Program
      1. Risk Management Policy Statement
      2. Cooperation with Other Departments
      3. Periodic Review and Evaluation

IV. Benefits of Risk Management

V. Personal Risk Management

Short Answer Questions

1. What are the steps in the risk management process?
2. What are the pre-loss and post-loss objectives of risk management?

3. What conditions should be present if retention is used to handle a loss exposure?

4. What is a noninsurance transfer? List some examples of noninsurance transfers.
5. What is the relationship between loss control and insurance premiums?

6. Why might a manufacturing company establish a captive insurance company?

7. Complete the “Risk Management Matrix” by writing the name of the risk management technique that should be used with the various loss frequency/loss severity combinations.

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8. Why might the risk manager of a corporation interact with the accounting department and the marketing department?

9. What risk management technique is illustrated by each of the following?

(a) Mid-South Van Lines requires each of their moving van drivers to complete a defensive driving course each year.

(b) Linda purchased disability income insurance.

(c) After tests revealed an experimental drug produced harmful side effects, Acme Drug Company discontinued development of the drug.

(d) To protect his personal assets from the claims of creditors, Dave decided to incorporate his small business.

(e) Towne and Country Dry Cleaners installed a sprinkler system in the laundering area.
10. What type of information is included in a risk management policy statement? What is a risk management manual?

11. What is a manuscript policy and when are manuscript policies likely to be used?

12. Name two personal loss exposures, two property loss exposures, and two liability loss exposures that may be considered in a personal risk management program.
Multiple Choice Questions

Circle the letter that corresponds to the BEST answer.

1. The first step in the risk management process is:
   (a) measure and analyze exposures
   (b) exposure identification
   (c) implementation of the risk management program
   (d) selection of the appropriate risk treatment technique

2. The worst loss that could possibly occur is the:
   (a) probable maximum loss
   (b) limit of liability
   (c) maximum likely loss
   (d) maximum possible loss

3. Self-insurance is an example of which of the following risk management techniques?
   (a) loss control
   (b) noninsurance transfer
   (c) retention
   (d) avoidance

4. Which statement about risk management is true?
   I. Risk management is concerned with the identification and treatment of loss exposures.
   II. Risk management is an on-going process.
   (a) I only
   (b) II only
   (c) both I and II
   (d) neither I nor II

5. All of the following are methods of funding retained losses EXCEPT:
   (a) insurance
   (b) credit line
   (c) current net income
   (d) funded reserve

6. Tom volunteered to build the stage for his community theater group. He asked each member of the
   group to sign a hold-harmless agreement absolving him of liability if the construction was defective
   and injuries occurred. Tom’s use of the hold-harmless agreement illustrates which method of dealing
   with risk?
   (a) noninsurance transfer
   (b) insurance transfer
   (c) avoidance
   (d) retention
7. Jan purchased automobile physical damage insurance with a $500 deductible. This coverage illustrates which two risk management techniques from Jan’s perspective?
   (a) loss control and avoidance
   (b) retention and transfer
   (c) transfer and loss control
   (d) avoidance and retention

8. All of the following are post-loss risk management objectives EXCEPT:
   (a) survival of the firm
   (b) reduction of anxiety
   (c) continued operations
   (d) stability of earnings

9. Which statement about risk management techniques is true?
   I. Using retention limits the liability of the firm to a specified amount.
   II. Risk transfer can be more expensive than risk retention.
   (a) I only
   (b) II only
   (c) both I and II
   (d) neither I nor II

10. All of the following are disadvantages of using insurance in a corporate risk management program EXCEPT:
    (a) premium payments are not tax deductible
    (b) insurance coverage may be expensive
    (c) it may be time consuming to negotiate the coverages and terms
    (d) the presence of insurance may lead to reduced incentives to engage in loss control

11. All of the following are reasons to form a captive insurance company EXCEPT:
    (a) the parent firm may have difficulty in obtaining some types of insurance
    (b) premiums paid to a captive, under certain circumstances, may be tax deductible
    (c) the captive can serve as another profit center
    (d) parent firms are allowed to take tax credits for losses paid by the captive

12. In response to an increase in shoplifting losses, Higgins Department Store installed surveillance cameras and began to use magnetic tags on goods. These measures are examples of which risk management technique?
    (a) risk transfer
    (b) risk retention
    (c) risk avoidance
    (d) loss control
13. Jill lives in an area where driving conditions can be hazardous in winter months because of ice and snow. Jill purchased a four-wheel drive vehicle and she puts studded snow tires on her vehicle during the winter months. These measures are examples of:
(a) risk transfer
(b) risk retention
(c) risk avoidance
(d) loss control

**True/False**

*Circle the T if the statement is true, the F if the statement is false. Explain to yourself why a statement is false.*

1. Insurance management and risk management are the same thing.  
2. Incorporating a business is a form of noninsurance transfer.  
3. Passive retention occurs when you unknowingly retain a risk.  
4. Risk management techniques can only be applied individually.  
5. Risk management is useless if the loss has already occurred.  
6. The risk management function should be performed in isolation. There is no need for interaction between the risk management department and other departments.  
7. Insurance should be the risk manager’s first option, with the other techniques applied only if the loss exposures cannot be insured.  
8. Retention has potential cash flow advantages.  
9. A financially strong firm is in a better position to retain loss exposures than is a firm in a weaker financial position.  
10. Past claims data are of no value to the risk manager.  
11. The major advantage of avoidance as a risk management technique is that the chance of loss associated with a particular exposure can be reduced to zero.  
12. Risk managers do not employ financial analysis in deciding upon the optimal risk treatment method.  
13. Self-insurance is a form of retention.
Case Applications

Case 1
Valerie is the president of Specialty Chemicals (SC). The company doesn’t have a “risk manager”—insurance and loss control activities are handled by Steve, who is the treasurer. SC’s commercial insurance is due to expire on June 30th. On June 26th, the agent servicing the account called Steve and said, “Our company has been forced to raise premiums. Your premium next year will be twice what you’re paying now, and the coverage will be more limited.” Steve was furious that the agent had not warned him earlier and Valerie ordered Steve to hire a risk management consultant to help them. Steve decided to hire you.

a. Why did the agent wait so long to tell SC about the premium increase? Is SC also to blame for being surprised by the premium increase?

b. As SC’s risk management consultant, what would you do?

Case 2
John is the risk manager for Universal Megatronics (UM). At UM, the personnel department is responsible for employee benefits and the risk management department is concerned with property and liability exposures only. Late last year, UM added a new employee benefit, off-site day care, to UM employees who have children. No one bothered to tell John about this new benefit or its location. Why was John furious when he learned about the existence of the off-site day care center?
Solutions to Chapter 3

Short Answer Questions

1. The risk management process involves a series of logical steps. First, the exposures to loss must be identified. After identifying the loss exposures, they must be measured and analyzed. Third, the appropriate combination of risk management techniques must be selected based on the potential frequency and severity of the loss exposures. After selecting the appropriate risk treatment techniques, the risk treatment plan must be implemented. Once implemented, the risk management program must be constantly monitored in case corrective action is needed.

2. Before losses occur, the objectives include: handling losses in the most economical way, reducing anxiety, and meeting externally-imposed constraints.

After losses occur, the objectives include: survival of the firm, continued operations, stability of earnings, continued growth, and social responsibility.

3. Retention may have to be used because no other technique may be available. Retention may also be used if the worst possible loss is not severe and if the losses are highly predictable.

4. Noninsurance transfer is a method of shifting the adverse consequences associated with risk to another party through some mechanism other than insurance. Examples of noninsurance transfers include: contracts, leases, incorporation of a business, and hold-harmless agreements.

5. The relationship between loss control activities and insurance premiums is an inverse relationship. The greater the efforts toward loss control, the less expensive the insurance coverage should be. For example, discounts are given for car bumpers that are better at handling collision. Another example is experience rating in commercial insurance. If a firm has an excellent track record in loss control and its insurer uses experience rating, premiums will be lower because of success in reducing frequency and severity of loss.

6. There are several reasons why a manufacturing company may decide to establish a captive insurer. The firm may face an insurance availability problem with regard to certain coverages; the firm may be seeking to stabilize earnings; the firm may need access to a reinsurer; the firm may want to establish the captive as a second profit center; and finally, under certain circumstances, the insurance premiums paid to the captive may be tax deductible by the parent firm.

7. The following treatment methods go along with the loss frequency/severity combinations:

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<td>Low</td>
<td>Retention</td>
<td>Transfer (including insurance)</td>
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<td>High</td>
<td>Loss Control and Retention</td>
<td>Avoidance</td>
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8. The accounting department may be of assistance in several ways. The accounting department would have lists and records of assets purchased, the accounting department knows to whom the firm owes money, the income statement might be an excellent source of information regarding the business income loss exposure, and risk management decisions have tax implications.

Interaction with the marketing department is important for several reasons. For example, a product improperly designed and advertised may lead to product liability litigation. Safe distribution of the product can reduce liability claims.

9. (a) The defensive driving course is an example of loss control. Hopefully, fewer losses will occur as a result of drivers completing the course.

(b) Linda transferred the risk associated with disability to an insurer. The transfer of risk can be accomplished through insurance and noninsurance transfers. Disability income insurance, an insurance transfer, was used by Linda.

(c) Discontinuing development of a hazardous drug is risk avoidance.

(d) Incorporating a business transfers the risk from the individual to a legally-created entity, the corporation. This method of dealing with risk is a noninsurance transfer of risk.

(e) Installing a sprinkler system illustrates the use of loss control. If a fire starts, the sprinkler system will limit the damage the fire can cause.

10. A risk management policy statement outlines the objectives of the organization regarding how loss exposures are treated. The policy statement can also be used to educate other managers with regard to the risk management process and its objectives. A risk management manual describes the risk management program in detail. It can be helpful in training new employees as it forces a risk manager to precisely state his/her responsibilities, objectives, and available techniques.

11. A manuscript policy is an insurance contract written to address the specific needs of an insurance purchaser. Manuscript policies are used when there is no standard contract that is applicable to the situation or when the applicant is unwilling to accept the terms of the contract the insurer is offering.

12. There are many examples that could be cited. Some personal loss exposures include the risk of premature death, the risk of poor health (sickness and disability), the risk of unemployment, and the risk of economic insecurity during retirement. Some property risks are the damage, destruction or theft of property (e.g., a fire damaging the home, physical damage to an auto, theft of valuable property) and any consequential loss associated with the direct loss. Liability may arise from injuring someone, damaging someone’s property, or personal injury, such as libel or slander. In addition to the risk of an adverse legal judgment, legal defense costs may be incurred defending the claim.

Multiple Choice Questions

1. (b) The first step is exposure identification. The loss exposures cannot be analyzed and the proper risk treatment technique cannot be selected until the risk manager knows what loss exposures are present.

2. (d) The maximum possible loss is the loss that could occur in the worst case scenario.

3. (c) Self-insurance is an example of retention. Rather than transferring the risk to a private insurer, as is done when insurance is purchased, the firm instead funds its own losses.
4. (c) Both statements are true. Risk management is concerned with identifying and treating loss exposures. The risk management process is not a once-a-year or once-a-month activity. Individuals and businesses constantly face new loss exposures. These loss exposures must be analyzed and risk treatment plans must be formulated and implemented.

5. (a) Borrowing via a line of credit, using current net income, and a funded reserve are all methods of funding retained losses. Insurance is not a source of funds for retained losses. Insurance is a method of transferring risk, not retaining risk.

6. (a) Tom used the hold-harmless agreement as a non-insurance risk transfer device.

7. (b) Jan is using retention (she must pay the first portion of any physical damage loss to the vehicle because of the deductible) and transfer (physical damage insurance).

8. (b) Reduction of anxiety is a pre-loss objective. In risk management lingo, reduction of anxiety is often referred to as “a quiet night’s sleep.” The other choices listed are post-loss objectives.

9. (b) One of the problems of risk retention in isolation is that there are no caps and limits on losses. If the firm has a “bad year,” the company must pay all of the losses. Insurance can be, and often is, more expensive than retention. Unfortunately, before the coverage period begins, you do not know which technique will be most cost-effective.

10. (a) Premiums paid by a corporation for private insurance coverage are considered an ordinary cost of doing business. Private insurance premiums are a tax-deductible expense for a corporation.

11. (d) The parent firm is not permitted to take tax credits for losses paid by the captive insurer.

12. (d) These measures are loss control devices—the store is attempting to reduce the frequency of loss by catching shoplifters.

13. (d) These measures illustrate loss control. Using four-wheel drive and studded tires reduce the likelihood of being involved in an accident.

**True/False**
1. F. Risk management is a broader concept that encompasses insurance management.

2. T

3. T

4. F Many risk management techniques are applied together. Private insurance that includes a deductible combines retention and transfer. Loss control is commonly applied with retention, insurance, and non-insurance transfer.

5. F There are a number of post-loss risk management objectives.

6. F A risk manager should not work in isolation. Cooperation with other functional areas within the firm is needed for the risk manager to be successful.

7. F Insurance is expensive and by transferring risk in exchange for the premium, the company loses the use of the money paid to the insurer. Insurance is but one of several risk management techniques, and is often employed in situations where retention would have been a better choice.
8. T

9. T

10. F Although past claims are no guarantee of future claims, past experience can help the risk manager to identify the types of claims that are likely to occur, as well as to assist in assessing the potential frequency and severity of future claims.

11. T

12. F Financial analysis is critical in the decision process. Consider, for example, the determination of the optimal deductible level. If the risk manager selects a higher deductible, a lower premium is required at the start of the coverage period. On the other hand, when losses occur, the company will have a greater cash outflow as the company has retained more of the loss. Financial analysis can assist in determining what deductible level is best. Financial analysis can be used to help decide between retention and transfer; and in determining whether an investment in loss control is financially justified.

13. T

**Case Applications**

**Case 1**

a. It is likely that the agent was afraid that the account would be lost or at least “shopped” if SC officials were aware of the price increase. By informing the company of the rate hike and coverage limits when he did, the agent was hoping SC would be forced to renew the coverage under the insurer’s terms. SC is culpable in this case, as well, for not monitoring insurance market conditions. SC officials should have been aware that coverage would be more expensive and more limited, and SC should have prepared for these problems in advance.

b. As a consultant to SC, you should first ask the agent to extend coverage at a pro rata premium for a short period of time. During the extension, you should perform the steps in the risk management process. This analysis will tell you if SC has identified their exposures, properly assessed them, and if the company is employing the appropriate risk management techniques. The risk treatment methods must then be implemented. If insurance is part of the best treatment program, coverage should be put out for competitive bids. Even if the current agent is successful in retaining the account, the agent is put on notice that the company will shop the account if not satisfied with the service provided.

**Case 2**

Some insurance coverages list insured properties and locations. Since John did not know about the location of the day care operation, it could not have been listed. In addition, UM may not be covered for legal liability if a day care worker or a child is injured at the day care center. Even if the day care center was located at an insured location, the company’s liability insurance might exclude liability for such an operation. If a child sustained a debilitating injury while under the care of the company-sponsored day-care center, UM might face a large, uninsured, liability claim. This case underscores the importance of communication and cooperation between the risk management department and other departments.