RISK MANAGEMENT

AN INTRODUCTION

BASIC CATEGORIES OF RISK

Pure and speculative risks

1. **Pure risk → situation in which there are only the possibilities of loss or no loss**

   Ex.: Premature death, job-related accidents, damage to property from fire

2. **Speculative risk → situation in which either profit or loss is possible**

   Ex.: purchase 100 share of stocks, profits if the price increases, lose if the price declines

Fundamental and particular risks

1. **Fundamental risk → a risk that affects the entire economy or large numbers of persons or groups within the economy**

   Ex.: inflation, cyclical unemployment, war

2. **Particular risk → a risk that affect only individuals and not the entire community**

   Ex.: car theft, bank robberies

MEANING AND THE OBJECTIVE

Definition of risk management:

a process to identify loss exposures faced by an organization and to select the most appropriate techniques for treating such exposure

Objective of risk management:

1. Pre-loss objectives
2. Post-loss objectives

PRE-LOSS OBJECTIVES

1. **The firm should prepare for potential losses in the most economical way**
    - The preparation involves an analysis of the cost of safety programs, insurance premium paid, & the costs associated with the different techniques for handling losses
2. **The reduction of anxiety**
    - Certain loss exposure cause worry & fear, such as fear of fire
3. **To meet any legal obligations**
    - Government regulation may require a firm to install safety devices to protect workers from harm, to dispose of hazardous waste

POST-LOSS OBJECTIVES

1. **To ensure the survival of the firm**
   - Survival means that after a loss occurs, a firm can resume at least partial operations within some reasonable time period
2. **To continue operation**
   - The ability to operate after a loss is extremely important. Otherwise, business will be lost to competitors
3. **To ensure the stability of earnings**
   - EPS can be maintained if the firm continues to operate. If a firm incur substantial additional expenses to operate in another location, the perfect stability of earnings may not be attained
4. **To continue growth of the firm**
   - A company can grow by developing new products & markets or by acquiring or merging with other companies
   - Risk manager must consider the effect of a loss to the firm's ability to grow
5. **To minimize the effects that a loss will have on other persons or society**
   - A severe loss can affect employees, suppliers, creditors, community

STEPS IN RISK MANAGEMENT PROCESS

1. Identify potential losses
2. Evaluate potential losses
3. Select the appropriate techniques for treating loss exposure
4. Implement and administer the program

POTENTIAL LOSSES

1. **Property loss exposure**

   Building, plants, furniture, equipment, supplies, computer software, inventory, account receivable, mobile equipment

2. **Liability loss exposures**

   Environmental pollution, discrimination against employees, misuse of internet & email transmissions

3. **Business income loss exposure**

   Loss of income from a covered loss, continuing expenses after a loss, extra expenses

4. **Human resources loss exposure**

   Death or disability of key employees, retirement or unemployment, injuries

5. **Crime loss exposure**

   Robberies, burglaries, employee theft & dishonesty, internet & computer crime

6. **Employee benefit loss exposure**

   Failure to comply with government regulations, failure to pay promised benefits

7. **Foreign loss exposure**

   Plants, business property, inventory, foreign currency risks, kidnapping of key personnel

SOURCES OF INFORMATION

1. Risk analysis questionnaires
2. Physical inspection
3. Flowcharts (flows of production & delivery, to reveal bottlenecks where a loss can have severe financial consequences for the firm)
4. Financial statements (to identify the major assets that must be protected)
5. Historical loss data

EVALUATING POTENTIAL LOSSES

= evaluate and measure the impact of losses on the firm

This involve:

1. **Loss frequency**
   - The probable number of losses that may occur during some given time period
2. **Loss severity**
   - The probable size of the losses that may occur

Once the risk manager estimate the frequency and severity of loss for each type of loss exposure, the exposure can be ranked according to their importance.

Catastrophic losses are difficult to predict because they occur infrequently → their potential impact on firms must be given high priority

TECHNIQUES TO TREAT LOSS EXPOSURES (1)

1. Risk control

Reduce the frequency and severity of accidental losses:

1. Avoidance → an existing loss exposure is abandoned

Example: Build a new plant not in a flood plain, withdraw dangerous drugs from market, etc.

Advantage: the chance of loss is reduced to zero

Disadvantage:

- the firm may not be able to avoid all losses,
- it may not be feasible or practical to avoid the exposure

2. Loss control:

a) **Loss prevention** → reduce the frequency of loss

Example: reduce truck accident: driver examination, zero tolerance for alcohol, strict enforcement of safety rules

b) **Loss reduction** → reduce the severity of loss after it occurs

Example: installation of rehabilitation of workers with job-related injuries, having warehouses with inventories at different locations

TECHNIQUES TO TREAT LOSS EXPOSURES (2)

2. Risk financing

Provide for the funding of accidental losses after they control

1. Retention

The firm retains part of all of the losses that can result from a given loss

- active retention → the firm is aware of the loss exposure & plans to retain part or all of it
- Passive retention → tend to be failure to identify a loss exposure, failure to act, or forgetting to act

2. Noninsurance transfers

Methods other than insurance by which a risk and its potential financial consequences are transferred to another party.

It includes contract, leases, hold-harmless agreements

3. Commercial insurance

Appropriate for loss exposure that have a low probability of loss, but a high severity of loss

RETENTION (1)

This method of treating loss is effective when:

1. **No other method of treatment is available**
   - Insurers may be unwilling to write a certain type of coverage (too expensive)
   - If exposure cannot be insured or transferred, it must be retained (all losses cannot be eliminated)
2. **The worst possible loss is not serious**
   - Physical damage losses to automobiles in a large firms will not bankrupt the firm if those cars are not simultaneously damaged
3. **Losses are highly predictable**
   - Effective for workers compensation claims, physical damage losses to automobiles, shoplifting losses

RETENTION (2)

If retention is used, risk manager must determine the retention level (a dollar amount of losses that the firm will retain)

Financially strong firm can have a higher retention level.

Methods to determine retention level:

1. **Determine the maximum uninsured loss it can absorb without adversely affecting the firm's earnings**

   Max retention: 5% of the firm's annual earnings before taxes

2. **Determine the maximum retention as a percentage of the firm's net working capital**

   Max: 1-5%

RETENTION (3)

How to pay losses

1. Using current net income (treat losses as expenses)
2. Unfunded reserve (to book actual or expected losses)
3. Funded reserve (setting liquid funds aside to pay losses)
4. Credit line (borrow funds from a bank)
5. Captive insurer (an insurer owned & established by a parent firm for insuring the parent's loss exposure)

SELF INSURANCE

- One of risk management programs
- It is technically not insurance, a pure risk is not transferred to an insurer
- A special form of planned retention by which part or all of a given loss exposure is retained by the firm
- = self funding → losses are funded & paid by the firm
- For workers compensation insurance, provide group dental, vision, & prescription drug benefits to employees

ADVANTAGE & DISADVANTAGE OF RETENTION

Advantages

1. Save money (long-term, if actual losses are less than the ones insured)
2. Lower expenses (some expenses may be reduced: loss-adjustment expenses, general administrative expenses, insurer's profits, etc.)
3. Encourage loss prevention (greater incentives for loss prevention)
4. Increase cash flow (firms can use the funds normally be paid to insurer)

Disadvantages

1. Possible higher losses (loss retained may be greater than loss allowance in the insurance premium that is saved by not purchasing the insurance)
2. Possible higher expenses (expenses to hire outside experts may be higher)
3. Possible higher taxes (income taxes may be higher, as premium paid to insurers are income-tax deductible)

ADVANTAGE & DISADVANTAGE OF NONINSURANCE TRANSFER

Advantages

1. Risk managers can transfer potential losses that are not commercially insurable
2. Noninsurance transfers often cost less than insurance
3. The potential loss may be shifted to someone who is in a better position to exercise loss control

Disadvantages

1. Transfer of potential loss may fail because the contract language is ambiguous. No court precedents for the interpretation of contracts
2. If the party to whom the potential loss is transferred is unable to pay the loss, the firm is still responsible for the claim
3. Noninsurance transfer may not always reduce insurance costs, because an insurer may not give credit for the transfer

INSURANCE (1)

If the risk managers use insurance, they must consider 5 keys:

1. Selection of insurance coverage
2. Selection of an insurer
3. Negotiation of terms
4. Dissemination of information concerning insurance coverage
5. Periodic review of the program

INSURANCE (2)

Advantages

1. The firm can continue to operate and may experience little or no fluctuation in earnings
2. Uncertainty is reduced, which permits the firm to lengthen its planning horizon. No worries and fears among managers
3. Insurers can provide valuable risk management services, such as loss-control services, exposure analysis to identify loss exposures
4. Insurance premiums are income-tax deductible as a business expense

Disadvantages

1. The payment of premiums is a major cost
2. Considerable time and effort must be spent in negotiating the insurance coverage
3. The risk manager may have less incentive to follow a loss-control program, because the insurer will pay the claim if a loss occurs

WHICH METHOD?

Type of loss	Loss frequency	Loss severity	Appropriate risk management techniques
1	Low	Low	Retention
2	High	Low	Loss control & retention
3	Low	High	Insurance
4	High	High	Avoidance

REFERENCES

Rejda, George E. (2001) Principles of risk management and insurance, Seventh edition, New York: Addison Wesley Longman, Inc.