Risk Management

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CHAPTER FOUR: Risk Handling Techniques: Loss Control, Risk Transfer, and Loss Financing

Textbooks:

- ***Introduction to Risk Management and Insurance, by M. Dorfman and D. Cather, 10th edition, Prentice Hall.***
- ***Lecturer Handouts, Book Chapters***

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RM Statement of Objectives and Principles

- Distinguish between pre-loss and post-loss objectives
- Pre-loss objectives
  - Survival and growth
  - Compliance with government regulations
  - Efficiency
  - Procedures and principles are implemented and followed

Risk Handling Techniques

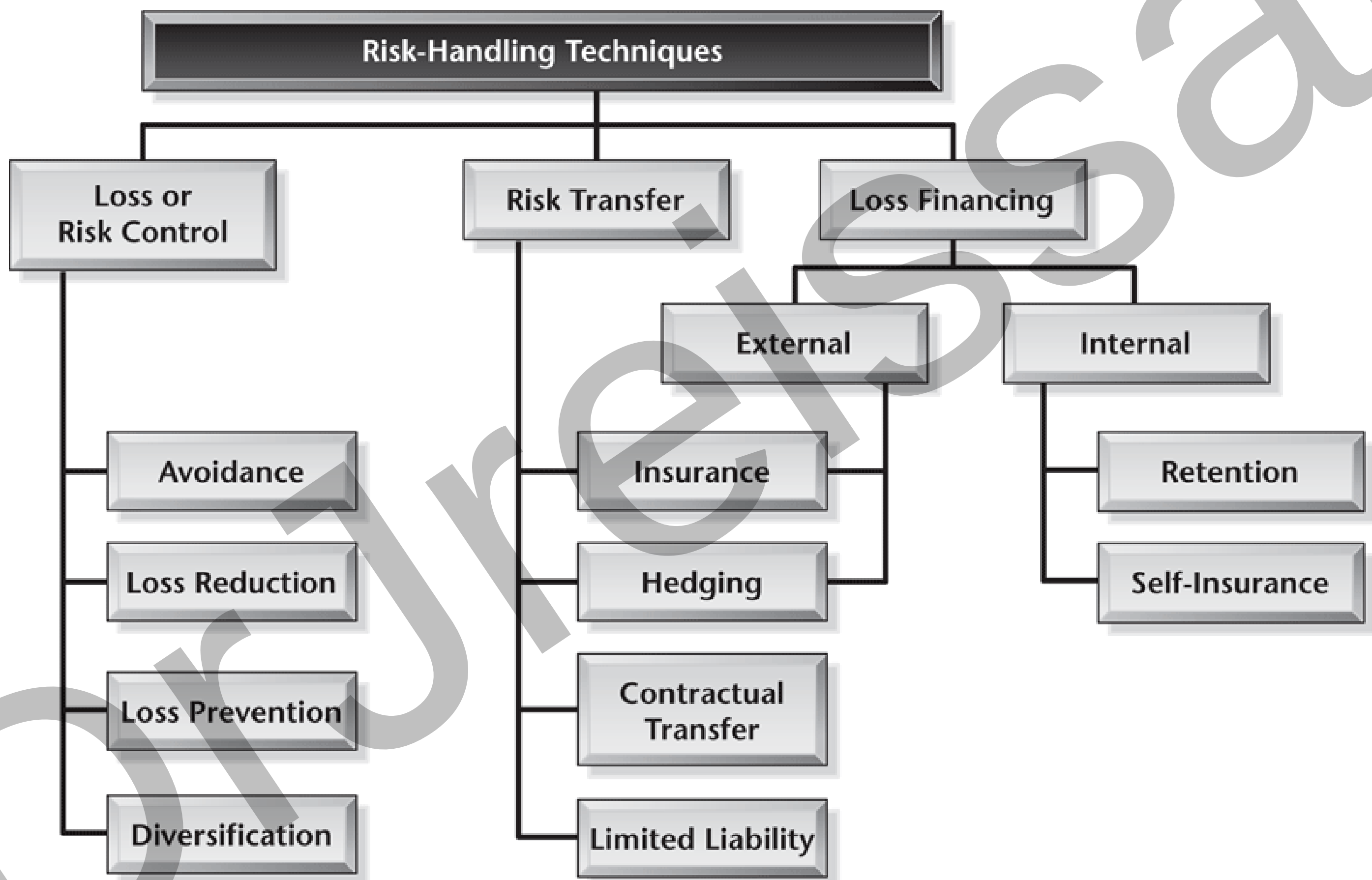

FIGURE 4-1 Methods of Handling Risk

Six Risk Control Measures

Six broad categories of

business risk control techniques :

1. Avoidance

- Avoidance is a risk control technique that involves discontinuing or not undertaking any activity, thereby eliminating a future loss from the action. Risk avoidance is aimed at preventing a risk from occurring. Risk is avoided when an organisation refuses to accept the risk.

2. Loss prevention

- Loss prevention means reducing the frequency of claims from activities that cannot be eliminated and the organisation chooses to continue. The primary purpose of a loss prevention technique is to reduce the frequency and likelihood of a particular loss.

Key Differences:
Timing: Loss prevention is proactive (before the event), while loss reduction is reactive (after the event).
Focus: Loss prevention focuses on stopping the event from occurring, while loss reduction focuses on minimizing the impact of the event once it occurs.

3. Loss Reduction

- Loss reduction focuses on preventing the occurrence of a loss – i.e., minimising the frequency of the occurrence of a loss. The primary aim of a **loss reduction technique** is to reduce the ***severity and cost of*** a particular loss.
- It is common to distinguish between efforts to prevent losses from occurring and those aimed at minimising the severity of loss if it occurs. **Risk reduction** consists of techniques designed to reduce the likelihood of loss and the potential severity of those losses if they occur. These techniques are known as loss prevention and loss control techniques.

4. Separation

تفريق

- **Separation** is a risk control technique that involves dispersing critical assets. Separation entails the division of a single asset into two or more. The separation technique ensures that if something catastrophic occurs at one location, the impact on a business is limited to only the assets at that location. On the other hand, if all assets were at that location, the company would face a much more severe challenge.

5. Duplication

- **Duplication** means having a backup for critical systems or operations. Duplication entails the creation of a backup plan. Adopting the duplication technique means relying on spare or duplicates only if assets or activities suffer a loss.

6. Diversification

- **Diversification** is a risk control technique to promote the allocation of business resources to create multiple lines of business that offer a variety of products and services in different industries.

Selecting the Risk Management Technique

- **The choice of risk-handling techniques is a function of:**
- 1) frequency and severity of loss;
- 2) the size of the firm or economic entity; and
- 3) the supply of insurance (insurance markets).

Selecting the Risk Management Technique

Frequency

Severity	Low	High
Low	**Assume** loss prevention loss reduction	**Loss Prevention** loss reduction assume risk
High	**Insure** risk transfer loss reduction loss prevention	**Avoid** loss prevention loss reduction

Loss or Risk Control

- **Loss or Risk Control**
  - All techniques designed *to reduce frequency or severity of loss*

1. Loss prevention (**frequency**)
2. Avoidance (**frequency and severity both zero**)
3. Loss reduction (**severity**, **might occur post-loss**, **e.g., salvage**)
4. Duplication and separation (**frequency and severity**), examples are redundant records or geographic dispersion of exposure units
5. Diversification, e.g., **multiple product lines**
6. Loss control and Federal Regulatory Agencies (**OSHA, CPSC, EPA impose specific requirements, compliance costs may result**)

Loss of Income

- Definition
- Sources of Loss
- Problems
  - Can be seasonal in nature
  - Difficult to measure
  - Best measurement still can only be an estimate

Losses

- **Loss Prevention:**
  - Activities that prevent losses.
  - Must be cost-efficient.
  - Some losses will occur regardless. Hence:
- **Loss Reduction**
  - Aim is to minimize impact when losses occur.
  - Duplication and Separation.

Measure (evaluation)

- **Maximum possible loss**
  - The absolute maximum dollar amount of damage
- **Maximum probable loss**
  - A conservative estimate of what is likely to occur in a worst-case loss
- **Relative Frequency**
  - An estimate (numerical or verbal) as to the number of times the loss will occur

Loss Control - Prevention

Always engage in, if beneficial

- **Loss Prevention**
  - Take various steps to ***reduce the probability*** of losses occurring
- How do you value the loss of life in the cost/benefit equation?

Loss Control - Reduction

Always engage in, if beneficial

- **Loss Reduction**
  - Steps designed to ***reduce the severity***
  - Take steps to reduce the damage before and after a loss

Government and Loss Control

- Occupational Safety and Health Act of 1970 (**OSHA**)
- Consumer Product Safety Act of 1972 (**CPSA**)
- Comprehensive Environmental Response, Compensation Liability Act of 1980 (**CERCLA**) (Superfund)
- Food and Drug Administration (**FDA**)
- The Clean Air Act
- The Water Pollution Control Act

Risk Transfer

Risk Transfer

1. Risk-bearing financial institutions, e.g., Chicago Board of Trade

2. Contractual transfer agreements and exculpatory clauses—transferring risk to another entity (risk still exists)

3. Hold-harmless agreements

4. Choosing form of business organization to transfer risk from individuals to entity

Risk Transfer

- Methods:
  - Risk-bearing financial institutions – Take on financial risk for a fee
  - Contractual transfer agreements – transfers risk to another party
  - Hold harmless agreements – transfer of risk through a contract
  - Limited Liability – provided to the owners of certain types of business organizational forms

Loss Financing

Loss Financing

1. Insurance
2. Insurance with deductibles (and self-insured retentions [SIRs])
3. Hedging
4. Retention
5. Self-insurance
6. Captive insurers (dedicated risk-financing units)

Loss Financing - 1

- Insurance:
  - Transfer of risk to an insurer for a premium
  - Appropriate when **loss-frequency** is **low**, but potential **severity** is **high**
  - Also has financial advantages: Tax Issues
  - Moral Hazard and Deductibles

Loss Financing - 2

- Risk Assumption
  - Deliberate decision:
    - Size of firm
    - Not always a choice
    - Funded Risk assumption.
  - Or not:
    - Ignorance?

Loss Financing - 3

Self-insurance is a risk management strategy where an organization or individual sets aside funds to cover potential losses instead of purchasing insurance from a third-party provider

- What is self-insurance?
  - Why do companies self-insure?
    - Save money
    - Better control
      - Loss prevention incentives
      - Improved claims settlement
      - Profitability and investment earnings
  - Difference between self-insurance and risk assumption

Risk assumption means that the entity has decided not to transfer the risk by any means. They will bear the cost of the losses. يتحمل

True self-insurance involves having the critical number of exposure units, having a loss control mentality, and having financial resources to pay losses.

Captive Insurance Companies

- A method of self-insuring
- A company formed to write insurance for a parent company
- Motives for starting a captive
  - Save the overhead and profits of the insurance company
  - Earn investment income on the premium
  - Tax advantages

Captive insurance companies are subsidiaries established by a parent company to insure its own risks and the risks of its subsidiaries. They provide tailored coverage, potential cost savings, and improved control over risk management compared to traditional insurance

Remember: Review and Update

- Regularly review and update the process
  - New assets or disposal of assets
  - Valuation changes
  - New products and processes, materials
  - New personnel
  - Law changes
  - Currency fluctuations
  - New contractual relationships

Choosing an Appropriate Risk-Handling Technique Based on Loss Frequency and Severity

TABLE 4-1 The Selection of Risk-handling Techniques, Based on Frequency and Severity

	Low Severity	*High Severity*
High Frequency	Self-insurance (for larger firms) and loss control	Avoidance (if possible) and loss control
Low Frequency	Risk assumption and loss control	Insurance and loss control

1. **Low** frequency, **low** severity—**RETAIN**
2. **Low** frequency, **high** severity—**TRANSFER** (Don't retain)
3. **High** frequency, **low** severity—**RETAIN**, **CONTROL** (Don't Transfer)
4. **High** frequency, **high** severity—**AVOID** (Don't retain)