



# **CERTIFIED RISK MANAGERS**

## **Principles of Risk Management**

The National Alliance  
2022 Online Learning Guide



**CERTIFIED RISK MANAGERS INTERNATIONAL**  
**Principles of Risk Management**  
**Table of Contents**

**1 — INTRODUCTION TO ENTERPRISE RISK MANAGEMENT**

---

**2 — RISK MANAGEMENT AND THE ORGANIZATION**

---

**3 — INTRODUCTION TO RISK IDENTIFICATION**

---

**4 — RISK IDENTIFICATION METHODS I - SELF ADMINISTERED TOOLS**

---

**5 — RISK IDENTIFICATION METHODS II - LOSS DATA ANALYSIS**

---

**6 — RISK IDENTIFICATION METHODS III - FINANCIAL STATEMENT ANALYSIS**

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**7 — RISK IDENTIFICATION METHODS IV - INTERNAL AND EXTERNAL REVIEW**

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## **A Letter from William J. Hold, CEO**

We know that choosing the right professional development programs to strengthen your career can be challenging. There are many options for you to choose from; so how can you be sure that your time, efforts, and money are being invested and not wasted?

By becoming a committed participant of The National Alliance, you can rest assured that you are also making the best educational choice for your career—no matter what step of your learning path you are on.

For the last 50 years, our designations have been regarded throughout the industry as symbols of quality and trust. Our practical insurance and risk management courses are taught by active insurance practitioners, include polices and forms currently used in the field, and guide you through real-world scenarios to give you a deeper understanding of what your clients are facing today. The knowledge and skills you develop in any one of our courses (or designation programs) can be put to use immediately.

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Let's take the first step.

William J. Hold, M.B.A., CRM, CISR  
CEO





# Certified Risk Managers

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## Section 1

# Introduction to Enterprise Risk Management





# Introduction To Enterprise Risk Management

## Resources

### [Key Terms](#)



### Learning Objectives

1. Explain the impacts of an effective Risk Management program on an organization.
2. Define Traditional Risk Management (TRM) and Enterprise Risk Management (ERM).
3. Describe characteristics of Traditional Risk Management (TRM) and Enterprise Risk Management (ERM).
4. List the ERM broad categories of risk and give examples of each.
5. Define Organizational Risk Culture (ORC).
6. Explain the four characteristics of an effective ORC.
7. List the benefits of implementing an ERM program.
8. Identify the requirements of ERM implementation.
9. Explain the purpose of ISO 31000 and identify its components.
10. Identify the five interrelated components of COSO.
11. Identify the obstacles to ERM implementation.



## Origins of Risk Management

**Code of Hammurabi** – 18<sup>th</sup> century BC – oldest written laws, some of which include legal responsibilities and penalties for accidents e.g. “an eye for an eye”

**Chinese River Merchants** – 18<sup>th</sup> century BC – division of shipments between several vessels travelling on the Yangtze river such that the loss of one vessel is not catastrophic to any one party

**Phoenician, Greek, and Roman Shipping** – 4<sup>th</sup> century BC – ship owners provided compensation for loss of vessel and cargo of other ship owners

**London Ale and Coffee Houses** – 16<sup>th</sup> century – investors provide compensation for loss of vessel and cargo

**Traditional Risk Management (TRM)** – 1963 – a functional, siloed, view of risks affecting one or more areas of the organization. *Traditional Risk Management deals with pure risk.*

## **Learning Objective 1:**

Explain the impacts of an effective Risk Management program on an organization.

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A Risk Management Program:

- 1. Protects the Organization's Reputation and Brand**
- 2. Increases Profitability (Reduced Costs or Increased Revenues)**
  - Reduces claims management and legal costs
  - Optimizes cost of risk
  - Protects cash flow, assets and financial statements
- 3. Raises Awareness of the Importance of Risk Management**
  - Promotes understanding and acceptance of risk management policies and procedures throughout the organization
- 4. Supports Managerial Objectives:**
  - Improves planning and budgeting
  - Reduces frequency and severity of incidents, accidents, losses and claims
  - Projects future losses
  - Increases awareness of indirect losses
- 5. Improves Morale and Productivity Among the Work Force**
- 6. Improves Quality, Processes and Technology**



## IMPACTS OF AN EFFECTIVE RISK MANAGEMENT PROGRAM



Protects the organization's reputation and brand



Increases Profitability



Raises awareness of the importance of risk management



Supports managerial objectives



Improves morale and productivity among the workforce



Improves quality, processes and technology

## Enterprise Risk Management (ERM)

In recent years, ERM has become a focus of risk managers and organizations. This practice has been evolving and it encompasses more types of risk than hazard risk. ERM is tied to the strategic goals and objectives of the organization. All areas of the organization are involved, and everyone is a manager of risk.

### **Other Names For ERM:**

1. Enterprise-wide risk management
2. Holistic risk management
3. Integrated risk management
4. Strategic risk management

### **ERM is:**

1. An ongoing process throughout an entire organization
2. A strategic decision-making process
3. Applied at every level of the organization
4. Focused on an entity-wide view of risk
5. Supportive of strategic objectives and goals

### **ERM is NOT:**

1. A plan to eliminate all risks; nothing can eliminate all risks
2. Solely focused on compliance and disclosure requirements
3. A collage of disparate policies and approaches
4. A replacement for internal controls
5. Simply having a Chief Risk Officer

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**Learning Objective 2:**  
Define Traditional Risk Management (TRM) and  
Enterprise Risk Management (ERM).

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TRM vs. ERM

**TRM** – a functional, siloed, view of risks affecting one or more areas of the organization.  
*TRM focuses on pure risk.*

**ERM** – a cross-functional view of risks affecting all areas of the entire organization.  
*ERM embraces speculative risks.*

**Examples:**

**Traditional viewpoint:** A breach of an organization's electronic database of customer information by a hacker is an Information Technology (IT) problem. The solution will be an IT solution.

**Enterprise viewpoint:** The breach and the resulting damage to reputation and the disclosure of private information is a problem affecting the entire organization. The solution will involve all areas of the organization.

**Learning Objective 3:**

Describe characteristics of Traditional Risk Management (TRM) and Enterprise Risk Management (ERM).

Characteristics Of Risk Management Approaches

<b><u>TRM</u></b>	<b><u>ERM</u></b>
Manages downside risks	Risk has the potential to affect both upside and downside
Oriented to cause-of-loss, tied to minimizing risk impact	Tied to strategic objectives or key business objectives
A functional, siloed treatment of risk within an organizational area	A coordinated, cross-functional treatment of risk across all areas of the organization
Places risk identification and ownership with the risk manager or individual department manager	Uses subject-matter experts and risk committees to identify organizational risk. Spreads accountability to risk owners and trains all stakeholders to be responsible for managing risk.
Most often reactive	Proactive and opportunistic





## PRACTICE EXERCISE

1. The management of an airline wanted to increase revenues and cut unnecessary costs without compromising passenger safety or on-time ratings. The solution was to taxi out to the runway on one engine and return to the terminal on one engine after landing.

Results: Saves fuel and maintenance  
Does not impact passenger safety or on-time ratings

2. You pay \$5 for a gift card that has a potential value of \$100. To activate the gift card and claim the \$100, you must correctly call the toss of a coin. If your call is incorrect, the gift card has no value. There are no second chances – you get one call of the coin toss.

Is there risk in accepting this offer?

3. A beverage manufacturer with a strong market share decides to launch a new version of the beverage with a different formulation.

What are the risks?

## The Upside of Risk

Risk appetite includes understanding and taking advantage of the potential rewards associated with taking risk.

### Examples:

- Currency leveraging against exchange rates
- Acquisition/stockpiling of resources at favorable prices
- Puts and calls, purchasing futures (stock market)
- Locking in interest rates on loans
- Speculative purchasing of land
- Expansion into new products, services, markets

### Example that did work:

- Johnson & Johnson's response to tainted Tylenol (improved market share and revolutionized the packaging industry)

### Examples that did NOT work:

- Volkswagen emissions subterfuge
- Enron
- Ford Pinto

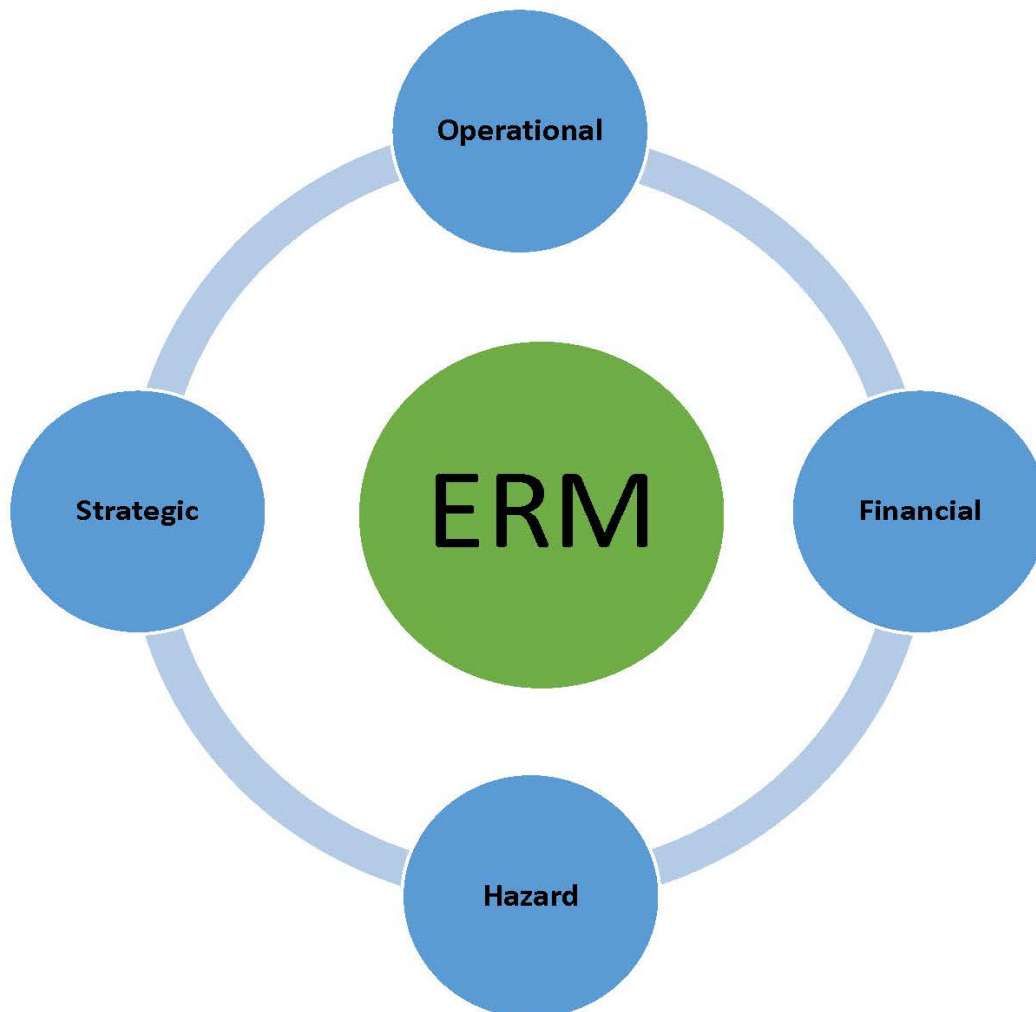
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**Learning Objective 4:**

List the ERM broad categories of risk and give examples of each.

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Since Enterprise-Wide Risk Management focuses on all risks that impact the organization, it becomes awkward to discuss these risks without a simplifying approach. To aid in the identification and analysis, the risks can be grouped into four broad categories: operational, financial, hazard and strategic. ERM extends into each of these areas to include any activity that could threaten or enhance the achievement of the organization's goals and objectives.



## Broad Categories of Risk for ERM

**Operational Risk:** related to and management activities (speculative)

**Financial Risk:** related to financial activities (speculative)

**Hazard Risk:** typically covered by insurance (pure)

**Strategic Risk:** related to an organization's strategic plan and mission (speculative)

Examples Of The ERM Broad Categories Of Risk

OPERATIONAL	FINANCIAL
Board composition Regulatory environment Community relations Supply chain Quality control Information systems Accounting controls Talent management & acquisition	Currency/foreign exchange Interest rates Credit Market risk (equities, commodities) Receivables Liquidity Cash flow
HAZARD	STRATEGIC
Contracts Natural events Vendors & suppliers Litigation Public access/interaction Products & services Assets & property Employees	Customer demand Industry changes Competitive pressures Merger & Acquisition integration Research & Development Intellectual capital Marketing



## PRACTICE EXERCISE

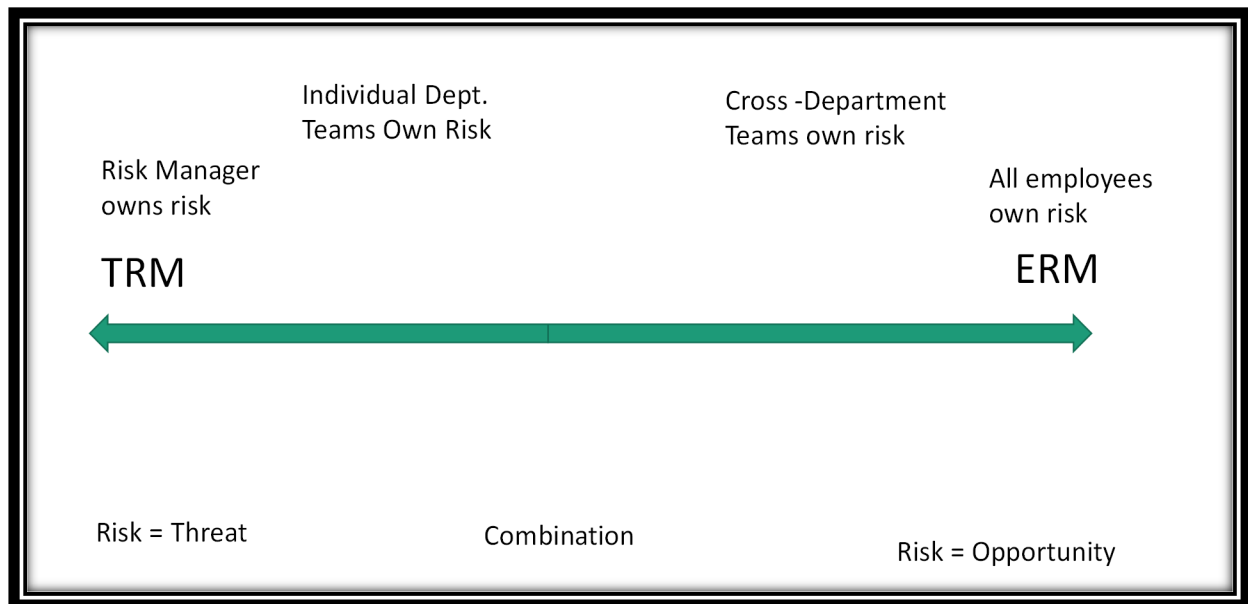
Identify which of the ERM broad categories of risk apply to the following examples:

1. Despite wide-spread public communication and media attention, a university decides it does not need to examine its diversity policies.
2. D. C. Power believes the demand for electricity will sky rocket in light of predictions for record temperature highs during the summer. They purchase “Congestion Contracts” to ensure delivery of power from remote locations in times of greatest demands.
3. A well-known producer of baked goods uses a single source for its flour.
4. Volvo announces its 2020 campaign – to create an injury-free vehicle by the year 2020. The car of the future will be able to steer, brake and find out about the road ahead from within a vast electronic bumper

## Assessing an Organization in Terms of ERM

The nature of operations will affect risk management policies and procedures. As an organization evolves, ERM application is also evolving. The organization may already have some form of ERM program in place, or may be considering implementation. To assess the organization and to evaluate its risk culture, a spectrum or continuum may be useful.

### ERM Continuum



## Organizational Risk Culture

**Definition of Culture:** a set of understandings, knowledge, beliefs, values and habits, that characterize a human group (organization) in search of a common purpose

1. All internal cultures may be different in terms of values, agreements or beliefs, so proper care must be taken to keep them all aligned with the strategic objectives of the organization.
2. The development of a consistent organizational culture must be enforced and communicated at all levels. This is the responsibility of not only top management, but of all personnel.

### How A Culture Is Formed

1. The attitudes of leadership are expressed through behaviors
2. Desired behaviors are motivated/incentivized
3. The repetition of desired behaviors creates a culture

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### Learning Objective 5: Define Organizational Risk Culture (ORC).

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**Definition of Organizational Risk Culture** – a set of understandings, knowledge, beliefs, values and habits toward risk, that characterize a human group (organization) in search of a common purpose

1. Attitudes are chosen behaviors toward risk adopted by an individual or a group; they are influenced by risk perception
2. Behaviors are observable actions/conduct toward risk

## Why Having an Effective ORC Matters

### **Compliance:**

1. International risk management standards establish that the Directors and Officers of an organization must ensure a proper alignment between risk management policies and the ORC implemented
2. Decisions must guide the organization towards risk management improvements and reinforcement of the positive aspects of the ORC

### **Operational Performance:**

1. Optimum performance depends on the behaviors of employees and the embedded ORC
2. The ORC should create a continuum that constantly improves the organization's performance

### **Risk Management Effectiveness:**

1. The ORC affects behaviors relative to risk
2. The ORC affects risk appetite and tolerance
3. The ORC affects people's perception about the acceptability of certain behaviors
4. The ORC directly affects the risk retention policies



## Characteristics of an Effective ORC

### Learning Objective 6:

Explain the four characteristics of an effective ORC.

#### Characteristics of an Effective ORC:

1. Tone at the top – leadership clarity of direction and a positive corporate attitude toward risk
2. Corporate Governance – clear responsibility for risk management; transparency and timeliness of risk information
3. Decision Making – well informed decisions regarding risk; performance evaluations encourage good risk management decisions
4. Authority and Accountability – embedding risk management abilities and responsibilities within the organization.

#### Tone at the Top

- Leadership, clarity of direction
- Positive corporate attitude towards risk

#### Corporate Governance

- Clear responsibility for risk management
- Transparency and timeliness of risk information

#### Decision Making

- Well informed decisions regarding risk
- Performance evaluations encourage good risk management decisions

#### Authority & Accountability

- Embedding risk management abilities and responsibilities within the organization

### **Learning Objective 7:**

List the benefits of implementing an ERM Program.

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#### **Benefits of Implementing an ERM Program:**

1. Identifies threats and opportunities related to an organization's strategic plan, objectives and total cost of risk
2. Closely links an organization's business, operational, and strategic objectives to the practice of managing risk
3. Uses performance metrics to drive improvement in decision making
4. Provides a common language for communication about risks and opportunities
5. Enhances management of activities and their associated risks
6. Safeguards the organization's branding and reputation
7. Allows organizations to capitalize on opportunities to increase shareholder/stakeholder value

#### **Considerations for ERM Implementation:**

1. What is the current status of the Company's risk management program?
2. Does the organization have the funds to implement ERM?

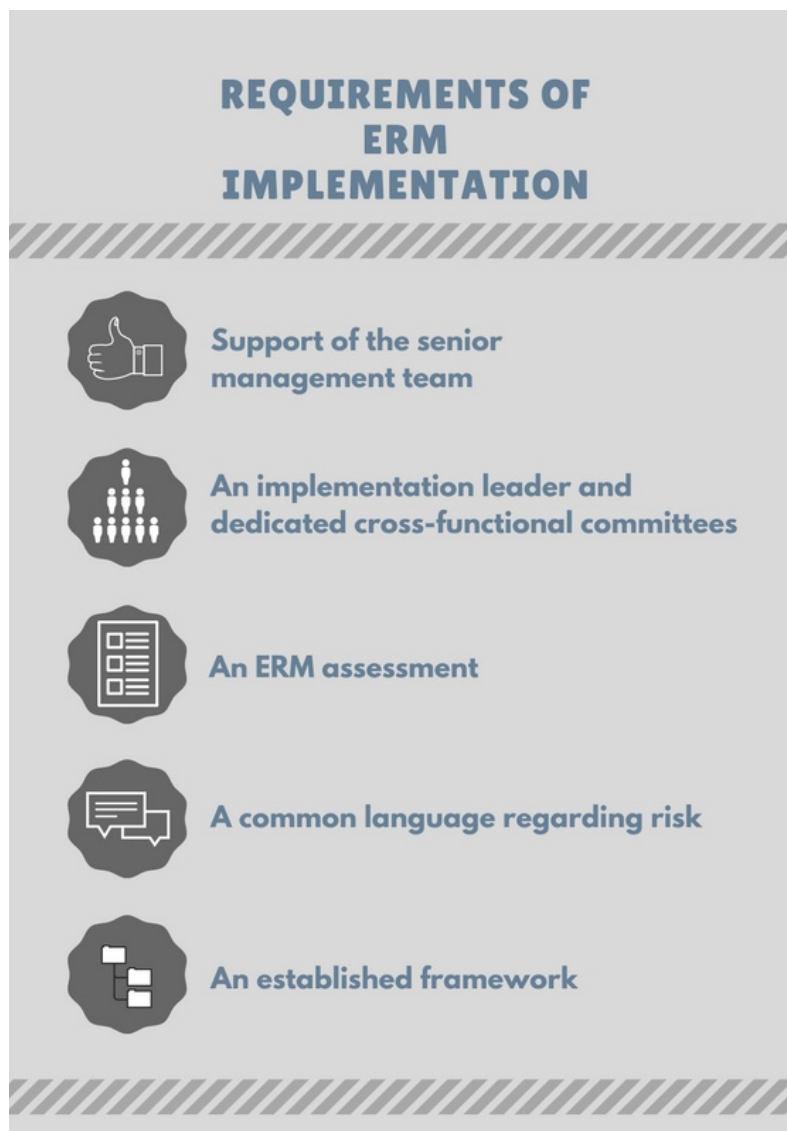
3. Does top management have the time to focus on the implementation or will they need to delegate?
4. Can the organization form an effective Risk Management Advisory Committee?
  - If so, who will be the committee members?
  - Will the role of the committee be authoritative or consultative?

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### **Learning Objective 8:**

Identify the requirements of ERM implementation.

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## Support from the Senior Management Team

1. Must be clear and consistent
2. Ensures that the organization's functional units and departments are committed to the process
3. Becomes part of the culture of the organization

## An Implementation Leader and Dedicated Cross-Functional Committees

1. Implementation Leader
  - Chief Risk Officer (CRO) or someone in an equivalent board-level position appointed to oversee the ERM implementation process.
2. Cross-Functional Risk Management Committees
  - What are the specific roles and responsibilities of the CRO vs. committees?
  - Do the committees represent the various areas of the organization?

**ERM Risk Assessment** –the identification of risks and opportunities that affect the organization.

1. Risk appetite – the organization's willingness to accept or tolerate risk
  - What risks will the organization not accept, e.g., environmental or quality compromises?
  - What risks will the organization take on as new initiatives, e.g., new product lines?
  - What risks will the organization accept for competing objectives, e.g., gross profit vs. market share?
  - How much is the organization willing to risk to obtain the benefits of an opportunity?

2. Risk ability – the organization’s financial capacity for assuming risk.

Elements considered:

- Financial resources
  - Expertise
  - Human capital
3. Risk ownership – everyone must be willing to accept responsibility for controlling and mitigating risk

**A Common Language Regarding Risk** – the organization must have a common language to use throughout the risk management process

**An Established Framework**, which includes:

1. Risk management policy
2. Identification of key stakeholders
3. Roles, responsibilities and accountabilities
4. Training and education of employees
5. Timeframe and budget
6. Monitor and review the progress of implementation, and modify if necessary

A framework is necessary to implement an ERM program. ISO\* 31000 and COSO\*\* are internationally recognized frameworks which outline that there must be an organization-wide commitment to risk management. This commitment must be led by the board and be implemented by all levels of management. Compliance with a risk management standard like ISO 31000 or COSO shows that an organization is following best practices.

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### **Learning Objective 9:**

Explain the purpose of ISO 31000 and identify its components.

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### **ISO 31000:2009**

ISO (the International Organization for Standardization) is a worldwide federation of national standard bodies representing over 160 countries. The work of preparing International Standards is normally carried out through ISO technical committees.

#### **1. Purpose**

ISO 31000:2009 provides an internationally recognized standard that any organization can use to manage any risk category (operational, financial, strategic, and hazard risks). It describes the Risk Management process in a logical, detailed and systematic way, and establishes principles which must be satisfied to implement an effective Risk Management function.

\* International Organization for Standardization

\*\* Committee of Sponsoring Organization of the Treadway Commission

## 2. ISO 31000:2009 Key Components

ISO 31000:2009 has five components which are called “clauses” in the document:  
<https://www.iso.org/popular-standards.html>

Clause 1: Scope

Clause 2: Terms and definitions (see <https://www.iso.org/home.html>)

Clause 3: Principles

Clause 4: Framework

Clause 5: Process

**Clause 1: Scope** This guiding standard:

- Can be used by UN agencies, national governments or any public or private corporation, associations, groups or individuals, and is therefore not specific for an industry or sector
- Provides a set of principles and generic risk management guidelines
- Can be implemented no matter where an organization might be in its life cycle.
- Can be applied to any type of risks, whatever its nature and notwithstanding its positive or negative potential effects
- It is not a certifiable standard as each organization shall produce its very own risk management program, specific to its characteristics, business environment, risk culture, (Risk Management Framework) etc.

**Clause 2: Terms and Definitions**

- <https://www.iso.org/popular-standards.html>

Principles

Framework

Process

These **three key components** interact amongst each other as follows:

- A. **Principles** guide the creation of the **Framework**
- B. The Framework defines the **Process**
- C. The performance of the Process feeds back into the Framework

ISO provides a figure that demonstrates the relationship among the three key components <https://www.iso.org/popular-standards.html>

### Clause 3: Principles

Principles are a set of concepts that should be agreed upon, applied and complied with at all levels, for risk management to be effective in an organization. They are designed to create value and constantly monitor and respond to the changing environment.

#### Risk Management:

- Creates and protects value as an integral part of all organizational processes including decision making.
- Is transparent, inclusive, systematic, structured and timely.
- Is tailored based on best available information and human and cultural factors.
- Facilitates continual improvement of the organization as it is dynamic, iterative and responsive to change.



**Clause 4: Framework**

A Risk Management Framework is a set of components embedded within the organization's overall strategic and operational policies and practices. The framework provides the foundation and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organization, as a basis for decision making and accountability at all levels.

The organization should adapt the framework components to its specific needs; however, frameworks should include plans, accountability, resources, processes and activities.

**Clause 5: Process**

The risk management process provides a consistent and structured approach for:

- 1) Establishing context
- 2) Risk assessment (risk identification, analysis, and evaluation)
- 3) Risk treatment
- 4) Ongoing monitoring and review
- 5) Communication and consultation

## How Should ISO 31000:2009 Be Used?

1. To frame the scope of the work
2. To guide the engagement
3. To create a risk management process
4. To assess your own current risk management framework
5. To identify shortcomings and a clear path to improvement

*ISO 31000:2009 is in the process of being revised to make things easier and clearer by creating a shorter and more concise document that is still widely applicable.*

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**Learning Objective 10:**  
Identify the five interrelated components of COSO.

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## COSO Foundation

Current mission: “provide thought leadership through the development of comprehensive frameworks and guidance on enterprise risk management, internal control and fraud deterrence designed to improve organizational performance and governance and to reduce the extent of fraud in organizations”.

Corporate scandals, arising in companies where risk management and internal control were deficient, and attempts to regulate corporate behavior (Sarbanes – Oxley) because of these scandals have resulted in an environment where guidance on best practice in risk management and internal control has been particularly welcome.

### **COSO ERM – Integrating with Strategy and Performance**

This framework emphasizes the consideration of risk during the setting of both strategic and performance objectives and consists of a set of principles organized into five interrelated components.



## **Governance and Culture**

1. Exercise Board Risk Oversight
2. Establish Operating Structures
3. Defines Desired Culture
4. Demonstrates Commitment to Core Values
5. Attracts, Develops, and Retains Capable Individuals

## **Strategy and Objective-Setting**

1. Analyzes Business Context
2. Defines Risk Appetite
3. Evaluates Alternative Strategies
4. Formulates Business Objectives

## **Performance**

1. Identifies Risk
2. Assesses Severity of Risk
3. Prioritizes Risks
4. Implements Risk Responses
5. Develops Portfolio View

**Review and Revision**

1. Assesses Substantial Change
2. Reviews Risk and Performance
3. Pursues Improvements in ERM

**Information, Communication, and Reporting**

1. Leverage Information Systems
2. Communicates Risk Information
3. Reports on Risk, Culture, and Performance

COSO's Enterprise Risk Management framework has continued to gain broad acceptance over the past decade. COSO continues to address the evolution of ERM and the need to manage risk in a dynamic and global business environment.

**Learning Objective 11:**  
Identify the obstacles to ERM implementation.

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The Obstacles are:

1. Lack of support from senior management
2. Difficult to invest capital in the risk management program
3. Showing return on investments
4. Different skills are required to successfully implement ERM vs. TRM:
  - Leadership & facilitation skills,
  - Creative approach to problem-solving,
  - Cross-functional viewing
5. Risk is viewed negatively in many organizations, so expanding to include upside risks may be difficult

6. Perception of Risk vs. Reality – Taking risk is often seen as a matter of courage rather than a reasoned, quality decision.

7. ERM Limitations

- Human judgment and decisions can be faulty
- The cost benefit of risk responses and control measures must be considered
- Controls can be circumvented/ignored
- Management has the ability to override decisions

## Review Of Learning Objectives

1. Explain the impacts of an effective Risk Management program on an organization.
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11. Identify the obstacles to ERM implementation.





# Certified Risk Managers

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## Section 2

# Risk Management and the Organization



## [Key Terms](#)



## Risk Management and the Organization

### Learning Objectives

1. Define risk appetite and risk ability and their importance to an effective risk management program.
2. Identify the general classes of risk and apply them to common scenarios.
3. Describe the governing documents of a risk management program.
4. Describe how to implement an effective risk management program.

To design and implement an effective Risk Management Program, the risk manager – with the support of senior management – must determine the organization’s risk-taking appetite and ability with an understanding of the classes of risk that may affect the organization. To be successful an organization should craft governing documents which are designed to inform employees, vendors and service providers of the purpose and objectives of the Risk Management function within the organization.

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### **Learning Objective 1:**

Define risk appetite and risk ability and their importance to an effective risk management program.

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## Risk Appetite and Ability

### **Definitions:**

1. *Risk appetite* is the organization’s willingness to accept or tolerate risk
2. *Risk ability* is the organization’s financial capacity for assuming risk

### **Factors that influence risk appetite and ability:**

1. Internal factors
  - Past experience with risk-taking
  - Organizational objectives (profitability, reputation, market share)
  - Stage in organizational life cycle
  - Financial status (assets, income and cash flows)
  - Frequency and severity of losses
  - Predictability of losses

2. External factors
  - Market position
  - Competition
  - The need to take business risk (new markets, products, services, re-branding)
  - Public image
  - Stakeholders' perceptions of risk (owners, creditors, government, etc.)
  - Availability of risk transfer alternatives

### **Importance of balancing risk appetite and ability in a risk management program**

1. The willingness to accept or tolerate risk without the financial capacity to do so can create a financial hardship.
2. The financial capacity to retain risk without the willingness to take the risk is unrealized opportunity.

### **Risk-taking appetite and ability are considered when:**

1. Developing policies and procedures (risk management, human resources, loss control, safety and security)
2. Elements of insurance programs are being reviewed (retentions, limits, aggregates)
3. Starting a new venture, product or service
4. Restructuring the organization
5. Evaluating a merger or acquisition
6. Facing critical events or substantial losses



## PRACTICE EXERCISE

Provide an example from current events where an organization may be in a position to reassess its risk-taking appetite and ability.

A spiral-bound notebook with a silver metal spiral binding at the top. The pages are white with light blue horizontal ruling. The notebook is shown from a slightly elevated perspective, casting a soft shadow on the surface below it.

### **Learning Objective 2:**

Identify the general classes of risk and apply them to common scenarios.

**Economic Risk** – risks arising from operations, economy, financial marketplace or entrepreneurial activities. These include fiscal and liquidity issues, failure of financial institutions, chronic unemployment and failure of infrastructure upon which economies depend.

**Legal Risk** – risks inherent in compliance or arising from common law and statutory liability.

**Political Risk** – risks arising from changes in the law, re-interpretations or changes in governmental policy, politics and diplomacy, conflict and global governance. These also include war, terrorism, conflicts over resources and illicit trade.

**Social Risk** – risks arising from public relations, loss of reputation, damage to brand, cultural issues, social direction or social media. These also include risks related to social stability such as income disparity, food shortages, crumbling inner cities and risks related to public health – pandemics, chronic disease.

**Physical Risk** – risks arising from property, people or information. These include natural disasters, such as earthquakes and hurricanes as well as man-made risks including nuclear accidents and climate change.

**Juridical Risk** – risks arising from a jury or judge's decision or from court or jury attitudes.

**Technological Risk** – risks arising from our growing dependence upon, and use of technology, as well as those created by emerging technologies – cyber-attacks, infrastructure disruption/collapse and loss of proprietary data.



## PRACTICE EXERCISE

Identify which classes of risk are applicable in the following scenarios.

1. Manufacturers fear tort attorneys will find a favorable venue to try class action law suits in the hope that juries will be responsive to their arguments.
2. A large retail box store's customer database is accessed by unauthorized persons and the personal information is compromised.
3. A recycling plant is required to install expensive safety equipment because of Occupational Safety and Health Administration (OSHA) requirements.
4. A National Football League team is concerned that a "franchise" player will not be able to perform during the season because of use of performance-enhancing substances.
5. Interest rate fluctuations in emerging markets are creating concern for international investors.
6. An oil rig in the North Sea explodes injuring workers and spilling thousands of barrels of oil.
7. General Motors is fined millions of dollars for failure to recall vehicles with defective ignition switches which are linked to over a hundred deaths.
8. A blogger on the Internet states that a major fast food restaurant uses imported genetically-modified beef that has been treated with growth hormones in its hamburgers.



**Learning Objective 3:**  
Describe the governing documents of a risk management program.



## Risk Management Mission Statement

**Purpose** – states the overall goal of the risk management program and guides the actions and decision-making of the risk manager

### Characteristics

1. Relatively short, clear, and concise
2. Aligned with the organization’s mission statement
3. Used with all activities related to risk management

**Content** – includes the priorities of the risk management program

### Sample Risk Management Mission Statement

The Mission of the Risk Management Department is to treat risk in the methods most beneficial, economical, feasible and practical for the safety, security and integrity of the Company, its assets, employees, owners, customers and service providers.



### PRACTICE EXERCISE

Draft a Risk Management Mission Statement for your organization or for a client’s organization.

## Purposes

1. Defines the policy for managing risks and the relevance to the organization's strategic plans, goals and objectives
2. Clarifies risk management goals and direction

## Characteristics

1. Should be one to two pages in length
2. Aligned with the risk management mission statement

## Content

1. Outlines the fundamental guidelines of the risk management function
2. Reflects an organization's risk tolerance and how decisions regarding risk are made
3. Clearly specifies responsibility, accountability and authority, and minimizes duplication of efforts

## Purposes

1. Demonstrates and communicates senior management's support for the risk management program to all employees
2. Establishes expected levels of performance and cooperation
3. Familiarize personnel with procedures to **effectively** manage risks and exposures
4. Provides a convenient reference or "how to" guide
  - Job safety
  - Reporting procedures for incidents and accidents in accordance with insurance policy terms and risk management department requirements

## Characteristics

1. A lengthy document that can be from several pages to several hundred pages; must be well organized
2. Aligned with the risk management mission statement and risk management policy statement

## Content

1. Letter of support from chairman/CEO/president
2. Risk management mission and policy statements
3. Risk management department functions
4. Risk financing program
  - Philosophy and process
  - Insurance placement process
  - Third-party service provider selection and insurance requirements
5. Procedures
  - Business continuity plan
  - Crisis management plan
  - Safety and loss control
  - Claims management including investigation, incident and accident reporting guidelines
  - Return-to-work program
  - Litigation management
  - OSHA Accident and Illness Reporting

**Learning Objective 4:**  
Describe how to implement an effective Risk  
Management Program.

---

With the support and commitment from Senior Management, the risk manager should:

**Provide frequent communication about risk management throughout the organization, and with relevant third-party service providers.**

**Communicate frequently with the risk management team so the team members understand the goals and objectives of the risk management function.**

**Continually reinforce the organization's commitment to risk management principles.**

**Involve all levels of the organization for successful implementation:**

1. Managers and supervisors provide the necessary support to achieve risk management goals and objectives. Active engagement of this group is required for executing loss control programs, claims gathering information, observations, ideas, and feedback.
2. All other employees need to be involved as well. Risk and loss control measures can significantly affect work habits, processes, and procedures; therefore, cooperation, input, and insight are needed from all employees. Cooperation among all levels impacts the effectiveness of the risk management program.

## Review Of Learning Objectives

1. Define risk appetite and risk ability and their importance to an effective Risk Management program.
2. Identify the general classes of risk and apply them to common scenarios.
3. Describe the governing documents of a Risk Management program.
4. Describe how to implement an effective Risk Management program.







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## Section 3

# Introduction to Risk Identification



### [Key Terms](#)



## Introduction to Risk Identification

### Learning Objectives

1. Explain why risk identification is the most important step in the risk management process.
2. Identify the four logical classifications and give examples of the loss exposures related to each.
3. Define and list the four elements of negligence.
4. List the four requirements of an enforceable contract and describe their remedies.

**Learning Objective 1:**

Explain why risk identification is the most important step in the risk management process.

---

To effectively manage and control exposures, perils, and hazards that may interfere with the achievement of an organization's objectives, they must first be identified. **Therefore, risk identification is the most important step of the risk management process.**

To properly identify exposures, the risk manager must use effective identification methods and be able to classify exposures.

## Four Logical Classifications of Loss Exposures

The use of logical classifications is a systematic way of classifying and categorizing exposures, perils, hazards and losses so that they can be analyzed, controlled, transferred and financed. While the classifications are separate categories, they are not mutually exclusive. A property loss may also give rise to a net income loss. The structure provides a starting point for analyzing exposures, perils and hazards.

3

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### Learning Objective 2:

Identify the four logical classifications and give examples of the loss exposures related to each.

---

<b>Property</b>	<b>Liability</b>
<b>Human Resources</b>	<b>Net Income</b>

## Property

Property may take two forms – tangible and intangible. Tangible property is anything which can be seen or touched it includes real property (buildings) and personal property (equipment). Intangible property has no physical form, but has value (patents, intellectual property)

### Property Exposures

1. Real property – examples
  - a. Buildings and structures
    - Office buildings, manufacturing plants, warehouses
    - Storage silos or bins
    - Concrete mixing plants
    - Tenant improvements and betterments (owner's interest)
    - Retaining walls, piers, docks
  - b. Land
    - Golf courses
    - Landscaping (trees, shrubs, paths)
2. Personal property – examples
  - a. Cash and securities
  - b. Records and documents
  - c. Inventory
  - d. Mobile equipment
  - e. Equipment, furnishings, and supplies
  - f. Computer systems, hardware, software, databases

### Property Exposures (continued)

3. Intellectual property – examples
  - a. Copyrights and patents
  - b. Trademarks, service marks and trade names
  - c. Trade secrets
  - d. Licenses and franchises
  - e. Leases and leasehold interests

### Property Perils – examples of causes of loss

1. Windstorm, Fire, Flood
2. Theft
3. Infringement on intellectual property rights

### Property Hazards – examples

1. Faulty wiring
2. Nature of operations
3. Lack of security, physical and network
4. Poor housekeeping, maintenance

## **Liability**

### **Liability Exposures**

1. Premises and operations
2. Advertising and communications
3. Products and completed operations
4. Statutory compliance

### **Liability Perils**

1. Slip and fall on premise
2. Libel, slander, false imprisonment
3. Product malfunction
4. Unknowing transmission of a computer virus

### **Liability Hazards**

1. Poor housekeeping
2. Poor quality control
3. Failure to enforce or inadequate policies and procedures



## Human Resources

### HR Exposures

1. Owners, officers, senior management
2. Employees
3. Independent contractors, leased, temporary and borrowed employees
4. Clients, suppliers, vendors

### HR Perils

1. Death
2. Disability
3. Illness/Injury
4. Resignation, termination and retirement

### HR Hazards – examples

1. Non-adherence to safety practices
2. Poor morale, poor performance or natural aging process
3. Workplace violence

## **Net Income**

Most hazards affecting net income losses are the same as those affecting the other classifications. While a net income loss may be the result of a property, liability or human resource loss, many net income losses are the result of factors and forces which do not fall within those classifications.

### **Net Income Exposures**

1. Investment activities
2. Market conditions and fluctuations
3. International business interests
4. Decreased revenue and/or increased expenses

### **Net Income Perils**

1. Loss of primary supplier, primary customer or “magnet” business
2. Weather (no property damage)
3. Impact of governmental action (e.g. nationalization, shutdown)

### **Net Income Hazards – examples**

1. Poor product positioning
2. Overextension of credit or excessive borrowing
3. Inadequate research and development
4. Imprudent investment activities

The risk manager needs to understand the basis and sources of potential liability facing the organization to properly identify liability exposures and hazards. Understanding these sources allows the risk manager to analyze, control, transfer and finance the exposures.

**In most cases financial liability cannot be accurately measured in advance of a loss. The amount of the loss depends upon the following:**

1. Circumstances of the event
2. Nature and severity of the damage or injury
3. Degree of fault by one or more parties
4. Applicable law
5. Judge's or jury's decision

**Common Law** – Body of law consisting of prior precedents or rulings by judges and juries in situations involving tort or contract law.

**Civil Law** – Protects the interests of individuals and includes the following sources of legal liability:

- Torts
- Contracts
- Statutes

## Torts

A tort is a private or civil wrong, other than a breach of contract, for which the courts will allow an action (lawsuit) for damages. Torts fall into three broad categories [Negligence (unintentional), Intentional, and Strict Liability].

**Negligence (Unintentional) Torts** – A type of unintended accident that leads to injury, property damage or financial loss. In the event of an unintentional tort, the person who caused the accident did so inadvertently and typically because he or she was not being careful. The person who caused the accident is considered *negligent*.

---

### Learning Objective 3:

Define and list the four elements of negligence.

---

***Negligence** is the failure to exercise the degree of care which a reasonably prudent person would exercise under the same circumstances.*

The elements of negligence are:

1. **A duty owed**
2. **A breach of that duty**
3. **Causation** – the breach of the duty must be the proximate cause of the injury, an unbroken chain of events
4. **Damages** resulting from the injury

*All four elements must be proven to establish negligence.*

**Intentional Torts** – when an individual commits an act with the intent of causing injury, damages, or a violation of another person’s rights.

Examples of an intentional act:

1. Libel/slander
2. Assault/battery
3. Wrongful detention/False imprisonment
4. Discrimination

**Strict Liability Torts** – liability directed by law (statute or common law) without regard to the intention of the offender’s actions. Strict liability shifts the burden of proof; it creates a rebuttable presumption that the defendant must overcome. Strict liability is often applied in inherently dangerous activities.

Examples of strict liability:

1. Keeping wild animals – zoos are strictly liable for injuries caused by their animals. Private individuals may also be held strictly liable for injuries caused by exotic animals.
2. Selling alcohol to minors – a person can be convicted even if s/he believed the minors were old enough to buy alcohol – strict liability imposed by statute
3. Ultra-hazardous/inherently dangerous activities (construction, blasting, excavation) – strict liability imposed by common law

## Remedies for tort actions awarded by the court:

1. Damages – financial
  - a. Compensatory – To make the plaintiff whole
    - Economic
    - Non-economic; i.e., pain and suffering, mental anguish, loss of relationship, inconvenience, etc.
  - b. Punitive – to punish or make an example of the defendant
  - c. Fines/penalties
2. Injunction – a requirement to refrain from doing an act, an enforcement of performance, or an obligation stated in contract
  - a. Temporary restraining order
  - b. Peace bond
  - c. Cease and desist order

## Contract Law

Body of law that governs the performance of a promise.

---

3

### **Learning Objective 4:**

List the four requirements of an enforceable contract and describe their remedies.

---

#### **Four requirements for an enforceable contract:**

1. Competent parties
2. Agreement or assent
3. Legal consideration (exchange of values)
4. Legal purpose

#### **Remedies for breach of contract or failure to perform:**

1. Damages – compensatory, punitive, or liquidated
2. Reformation – changing the contract to reflect the true intentions
3. Injunction
4. Performance – enforced compliance with contractual promises

## **Statutes**

Enactments of legislative and administrative bodies that impose responsibility for certain actions or omissions.

### **Examples of statutes:**

1. Workers Compensation
2. Municipal codes
3. Ordinances
4. Financial Responsibility Laws (auto)

### **Examples of exposures:**

1. Fines
2. Penalties
3. Injunctions



## **Regulatory Liability Exposures**

### **Mandatory compliance examples:**

1. Licensing
2. OSHA
3. EPA

### **Voluntary regulations – rules created by professional, trade and other organizations to internally govern their members:**

1. Codes of conduct
2. Professional standards



## PRACTICE EXERCISE

- A. At Lake Tahoe Resort, a maintenance staff member forgot to clean the snow and ice from a sidewalk. Two guests slipped on the ice.

Their incident reports are as follows:

1. Picabo Rhodes suffered a broken leg when she fell after stepping on the ice. The medical bills are \$4,000, and her lost wages are \$1,000. Is Lake Tahoe Resort negligent, and if so, what are the damages?
  2. Jerry Forde landed in a snow bank after slipping on the ice. He brushed off his ski clothes and continued to the chair lifts. Is Lake Tahoe Resort negligent, and if so, what are the damages?
- B. French Lick Resort has made use of its natural surroundings nestled in the midst of an old growth hickory and oak forest. In the fall and winter, the leaves often collect on the wooden walkways. Rain and light snow make the walkways very slippery and hazardous.

Management hires local secondary school students to clean the wooden walkways once a week. To protect themselves, the facility entered into a written contract with the boys that contains a provision that the boys will hold the resort harmless should anyone be injured from a slip or fall caused by the wet leaves on the wooden walkways. Is the resort protected adequately by this contract?

**The legal systems of nearly all countries are generally modeled upon elements of five main types of law:**

1. Civil Law (including French law, the Napoleonic Code, Roman law, Roman-Dutch law, and Spanish law) – codified bodies of law
2. Common Law (including United States law) – precedential court and jury decisions
3. Customary Law – most customary laws deal with *standards of community* that have been long-established in a given locale. However, the term can also apply to areas of international law where certain standards have been nearly universal in their acceptance as correct bases of action – e.g., laws against piracy or slavery
4. Mixed or Pluralistic Law – different laws govern different groups within a country. For example, in India and Tanzania, there are special Islamic courts that address concerns in Muslim communities by following Islamic law principles. Secular courts deal with the issues of other communities.
5. Religious Law (including Islamic law)

**International Law** – a separate legal system that governs the conduct of independent nations in their relationships with one another.

### **International Operations Exposure Identification:**

1. Multi-national operations – premises and operations liability exposure identification
2. Exporting – selling products and/or services in other countries – products and completed operations exposures
3. Importing – purchasing products and/or services from other countries – potential of products liability (food products, etc.)
4. Doing business in sanctioned countries – due diligence required

### **Sources of Liability – in each country:**

1. The types of laws – common law, Napoleonic, etc.
2. Litigious society? Customs? Culture?
3. Regulatory liability

### **Tools for Identification of Risks:**

1. Insurance policy review – thorough review of policy contracts
2. Utilizing local knowledge



## PRACTICE EXERCISE

Using the information provided below:

- Identify the upside of each proposed alternative
- Identify 2 exposures to loss arising from the alternative
- Classify the exposures using the logical classifications
- Identify 2 hazards for each which could contribute to the extent of the loss

*The Multiblend Corporation produces dietary supplements. The company has manufacturing plants in 6 U.S. states. As the demand for these health products continues to rise, particularly in Europe, they are considering several alternatives aimed at controlling shipping and production costs. While many of the ingredients are grown in the U. S. and Canada, a large number come from two suppliers in Latin America, each providing different products. The cost to import the raw materials, combined with impromptu quarantines of U. S. shipments by the U. S. Food and Drug Administration has driven up production costs and caused delivery delays. Multiblend is considering several alternatives.*

Alternative 1 – Building a manufacturing plant in Brazil

Upside:

Exposure 1:

Logical classification:

Hazards (2):

Exposure 2:

Logical classification:

Hazards (2):

Alternative 2 – Starting (or acquiring) their own farms and nurseries

Upside:

Exposure 1:

Logical classification:

Hazards (2):

Exposure 2:

Logical classification:

Hazards (2):

Alternative 3 – Reducing sales staff in Europe and moving to an on-line sales platform

Upside:

Exposure 1:

Logical classification:

Hazards (2):

Exposure 2:

Logical classification:

Hazards (2):

Alternative 4 – Contracting with an international carrier for improved delivery terms.

Upside:

Exposure 1:

Logical classification:

Hazards (2):

Exposure 2:

Logical classification:

Hazards (2):

Which of these alternatives, if any, would you recommend to Multiblend?

Why?



## Review Of Learning Objectives

1. Explain why risk identification is the most important step in the risk management process.
2. Identify the four logical classifications and give examples of the loss exposures related to each.
3. Define and list the four elements of Negligence.
4. List the four requirements of an enforceable contract and describe their remedies.





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## Section 4

# **Risk Identification Methods I - Self Administered Tools**



## [Sample Checklists & Surveys](#)



## [Sample Flowcharts](#)



## [Sample Physical Inspections](#)



## Risk Identification: Methods I Self-administered Tools

### Learning Objectives

1. Identify the purpose and characteristics of checklists and surveys.
2. Identify the purpose and characteristics of flowcharts.
3. Identify the purpose and characteristics of physical inspections.

**Learning Objective 1:**  
Identify the purpose and characteristics of  
checklists and surveys.

---

**Purpose** – to systematically identify as many exposures, perils and hazards as possible using a list

**Application** –to use as a guide to gather information that results in exposure identification in an organized and orderly manner

**Characteristics:**

1. Standardized
2. Can be used by non-risk management personnel with minimal training required
3. Cannot cover all areas or operations
4. May not identify new exposures or emerging risks
5. Does not reflect severity of exposures
6. Does not prioritize exposures

Checklist & Surveys



**General information survey** – gathers general information about the structure, ownership and activities of an organization

### General Information Survey

1. Full legal name as legally registered or recorded
2. Listing of all names under which organization has operated
3. Organizational chart and key management personnel roster
4. Complete listing of officers and board members
5. Copy of organizational charter and by-laws
6. Listing of locations at which organization maintains an operation, office, warehouse, storage space or permanently stationed personnel

**Asset list** – used to identify physical or tangible assets

### Asset List

Real property  
    Offices  
    Manufacturing buildings  
    Warehouses  
    Structures  
    Underground property  
    Land  
    Natural resources  
Business/Personal property  
    Equipment and machinery

**Activity/situation list** – used for liability and human resources exposures; evaluates equipment, personnel and operations functioning together

<b><u>Checklist of Activities</u></b>		
(financial services sector)		
Do you receive income from or provide the following services?		
Yes	No	
___	___	Appraiser of real property
___	___	Land surveyor
___	___	Title abstractor
___	___	Real estate agent or broker
___	___	Collection agent
___	___	Notary public
___	___	Travel agent
___	___	Administrator of lock boxes
___	___	Discount broker
___	___	Investment advisor
___	___	Personal financial planner
___	___	Insurance agent or broker

**Perils list** – used to identify the original source or cause of loss, e.g. human, economic, natural causes

<b><u>Human Perils</u></b>		
Arson	Auto accidents	Contamination
Death	Disability	Discrimination
Electrical	Embezzlement	Errors/Omissions
Explosion	Fire (unfriendly)	Homicide
Industrial accidents	Infringements	Intentional acts
Inventory shrinkage	Libel	Molten material
Negligence	Pollution	Power failure
Radioactive materials	Riot	Slander
Sonic boom	Statutory liability	Strikes
Terrorism/sabotage	Theft	Vandalism
Vibration	War	Water Damage



**Industry lists** – specific to a certain operation or industry; allows for comparison to peers, identifying common industry exposures

<b><u>Industry List</u></b>	
(Example from Trucking Industry)	
1.	Years in business
2.	Total number of employees
3.	Drivers list (name, date of birth, date of hire, license #, SSN)
4.	Copy of D.O.T. rating
5.	Equipment schedule
6.	Financial statements
7.	Copy of authority
8.	Copy of leases
9.	Copy of mileage reports
10.	List of commodities carried

**Insurance company checklists** – are available from insurance companies to identify specific exposures of specific classes of risk (i.e. restaurants, banks, contractors, etc.)

<b>Sample Carrier Checklist – AUTOMOBILE FLEET:</b>			
	<i>Yes</i>	<i>No</i>	
1.	Documented Fleet Safety Program?	_____	_____
	# of Vehicles: _____		
	# of Authorized Drivers: _____		
2.	Motor Vehicles Record and license check?	_____	_____
	Frequency: _____		
3.	Criteria established for MVR review?	_____	_____
4.	Driver road test required?	_____	_____
5.	Ongoing driver training?	_____	_____
6.	Disciplinary procedures for:		
	Results of accidents/violations?	_____	_____
	Results of MVR review?	_____	_____
	Results of misuse of fleet vehicles?	_____	_____
7.	Accident investigation review?	_____	_____

**Learning Objective 2:**  
Identify the purpose and characteristics of  
flowcharts.

---

**Purpose** – to graphically and sequentially depict the activities of a particular operation or process to identify exposures, perils and hazards

**Application** – allows the user to visually analyze and identify exposures in the flow of the processes of an organization

1. Product analysis (manufacture, assembly)
2. Dependency/interdependency analysis (suppliers, other departments, distributors)
3. Site analysis (movement of a product through departments)
4. Decision analysis
5. Critical path analysis

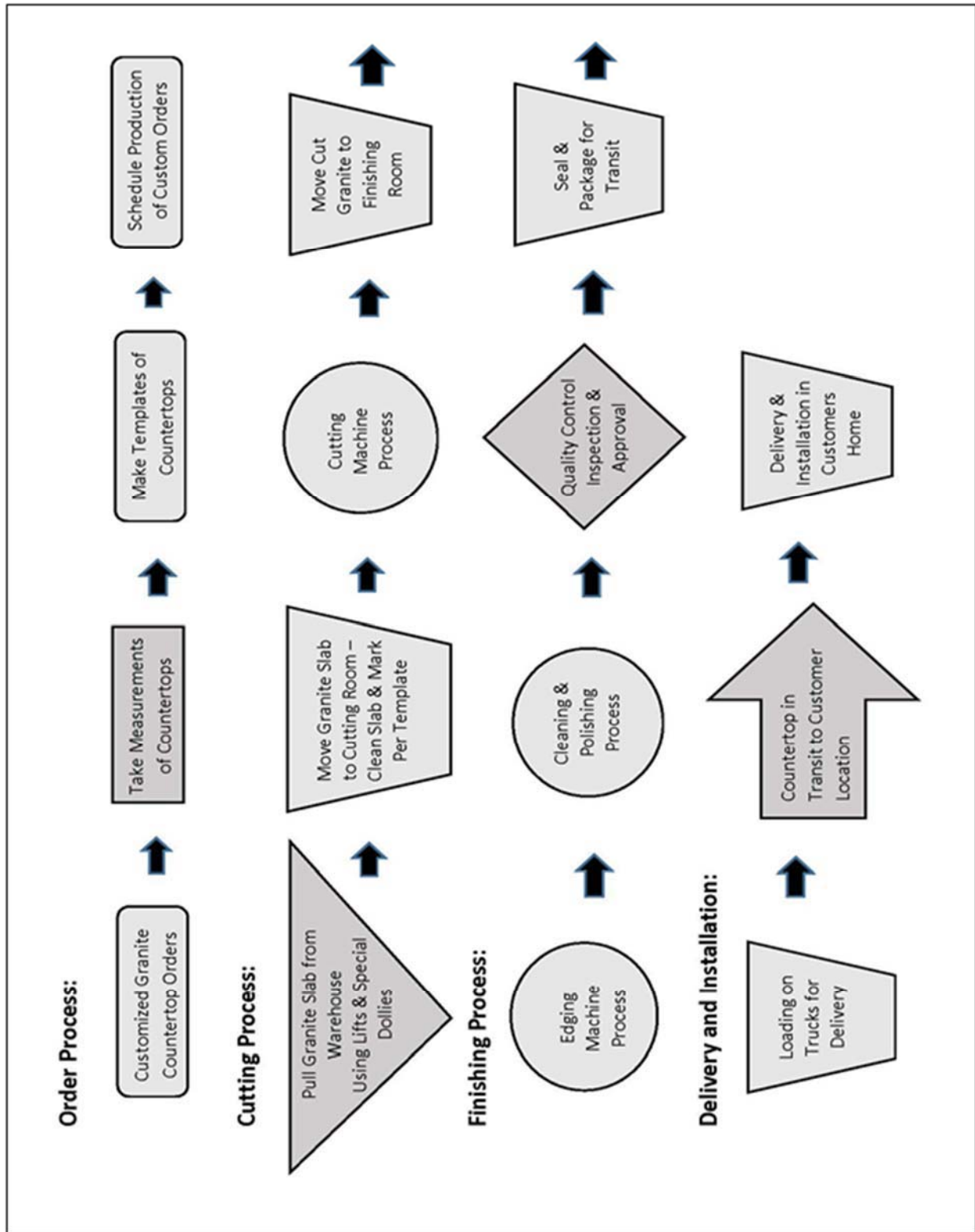
## Characteristics:

1. Illustrates interdependency within an organization
2. Pinpoints bottlenecks or chokepoints
3. Does not indicate frequency or severity
4. Does not show minor process with major loss potential
5. Limited applicability to liability exposures

Flowcharts



# Marble Counter and Cabinet Sales





## PRACTICE EXERCISE

Using the Marble Counter and Cabinet Sales flowchart, what events could cause a loss or disruption to property, human resources, liability and net income during the course of production, delivery and installation?

4

A blank, lined, spiral-bound notebook page with a silver metal spiral binding at the top. The page is white with light blue horizontal ruling lines. There are approximately 25 lines on the page, starting from the top margin and ending near the bottom edge. The page is completely empty of any text or markings.

**Learning Objective 3:**  
Identify the purpose and characteristics of  
physical inspections.

---

**Purpose** –to determine observable exposures, perils and hazards by visits to an organization’s sites and contingent locations (suppliers, vendors)

**Application** – may be performed by internal personnel (risk management, safety) or external providers (consultants, regulatory agencies, carriers)

**Characteristics:**

1. Provides visualization of processes, locations, personnel, etc.
2. May find unreported hazards or assets
3. Time consuming and often expensive
4. Subject to influence by local personnel

Physical Inspections



## *Swimming Pool Safety Check List*

Area	Date	Pass	Fail	Comments
Parking lot	Pavement			
	Lighting			
Walkways	Pavement			
	Lighting			
Fencing	Intact/Secure			
	Rust-Free			
Entrance way	Locks			
	Lighting			
Office	Floor			
	Ceiling			
	Lighting			
	Electrical			
	PA systems			
Telephone				
Locker rooms	Floor-nonslip			
	Clean			
	Drainage			
	Sanitized			
	Benches-secure			
	Smooth surface			
	Electrical outlets			
	Switches			
	Lighting			
	Exit signs			
Restrooms	Floor-nonslip			
	Clean			
	Drainage			
	Sanitized			
	Lighting			
	Electrical			
	Toilets-functioning/sanitized			
	Sinks-functioning/sanitized			

Area	Date	Pass	Fail	Comments
Showers lot	Floor-nonslip			
	Clean			
	Sanitized			
	Drains-clean			
	Functioning			
	Lighting			
	Plumbing-leaks			
	Water temperature control			
Pool Entrance	Shallow end			
	Unobstructed			
Pool deck	Non-slip			
	Clean			
	Proper slope-drainage			
	Proper deck markings/readable			
	No obstructions			
	Benches intact			
	Smooth surface			
Diving boards	Board intact			
	Sanitized			
	Board secured			
	Standard intact			
	Standard anchored			
	Steps intact			
	Steps-nonslip			
Pool ladders	Handrails-sturdy			
	Firmly attached			
	No sharp edges			
Guard chairs	Non-slip steps			
	Proper location			
	Proper height			
Pool walls	Steps and seats intact			
	Smooth surface			
	No protruding areas			
	Depth markings			



## Review Of Learning Objectives

1. Identify the purpose and characteristics of checklists and surveys.
2. Identify the purpose and characteristics of flowcharts.
3. Identify the purpose and characteristics of physical inspections.





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## Section 5

# **Risk Identification Methods II - Loss Data Analysis**



### Loss Data Analysis



## Risk Identification: Methods II Loss Data Analysis

### Learning Objectives

1. Identify the specific types of loss data that should be collected.
2. Identify methods of loss data collection.
3. Identify the characteristics of credible loss data.
4. List the changes in exposures that may have an impact on loss data and analysis.
5. Explain why loss data must be collected and analyzed.

What is loss data analysis?

**Loss Data Analysis – Defined**

Using loss data to identify and understand the potential impact those losses have on the organization's risk management program and the total cost of risk.

**Learning Objective 1:**

Identify the specific types of loss data that should be collected.

---

**Category of loss** – property damage, auto accident, industrial injury, injury from product

**Date and time of loss**

**Claimant** – name, date of hire, occupation, shift

**Loss location** – division, plant, department, other premises

**Hazard** – noise level, floor surface, lack of protection, weather

**Cause** – fall from height, collision, repetitive motion, inhalation, lifting, lightning

**Type of injury/damage** – sprain/strain, laceration, disease, water damage, auto physical damage

**Body part**

**Management** – supervisor, team leader

The collection of data regarding a loss may be the responsibility of a claims adjuster, the risk manager or other members of management. Timely collection of data is required to ensure there are no fading recollections, and that evidence is preserved.

---

**Learning Objective 2:**  
Identify methods of loss data collection.

---

**Individual loss-specific data may be obtained through:**

1. Interviews – with the parties involved and witnesses
  - Face-to-face – written or recorded statement
  - Telephonic – recorded statement
2. Weather Reports – factors leading to or contributing to the loss
3. Accident Scene Photographs
4. Product Inspections/History of Losses
5. News Reports

Loss Data Analysis





6. Police/Fire/Emergency Responder Reports
7. Hospital and Medical Reports – with proper permission
8. Wage/Earnings Reports – with proper permission
9. Index Bureaus and Claim Registries – Central Index Bureau, Property Insurance Loss Register

### **Learning Objective 3:**

Explain the characteristics of credible loss data.

---

#### Characteristics of Credible Loss Data:

##### **Completeness**

1. All events are included whether covered by insurance or not
2. Enough data is available; (at least 5 years of data and at least 30 data points per year)
3. Adequate details about each record
4. Paid and open reserve amounts

##### **Consistency**

1. Same types of data available for each loss within a category
2. Same policy year, fiscal year, calendar year
3. Same recording methodology – beware of differences between carriers or TPAs – different coding systems may need to be reconciled
4. Same definitions of types of injuries, perils, hazards, e.g. Is a first aid claim treated as “report only” or as “medical only”? – affects frequency and experience modification factors (e-mod)

**Integrity**

1. Reliability of data and accuracy of input
2. Prompt reporting and current data
3. Accuracy of loss reserving

**Relevance** – only use data relevant to the analysis*Areas of concern:*

1. Discontinued operations, divestiture, exposures transferred to a third party
2. Acquired operations – entire versus partial acquisition, asset versus entity deal
3. Commingling of data of diverse operations
4. Data not relevant to the loss – extraneous data

Statistical credibility is enhanced when:

1. Minimum variability exists in frequency and severity of losses
2. Stable operations exist over the time period
3. Data is organized into useful formats

---

**Learning Objective 4:**

List the changes in exposures that may have an impact on loss data and analysis.

---

Changes in exposures that may impact loss data and analysis:

1. Introduction of new products or services, equipment, materials or work processes
2. Acquisitions, divestitures, mergers, restructuring
3. Legal and regulatory matters, including statutory benefits
4. Social and economic environment, including inflation
5. Labor and management issues
6. Safety, incentives or awards programs
7. Demographic changes

### **Internal sources** –the organization’s loss experience

1. Accident or incident reports
2. First aid logs
3. OSHA logs
4. Insurance carrier or TPA loss runs
5. Litigation records
6. Accounting entries on financial statements

### **External sources** – other organizations’ loss experience

1. Industry associations
2. Insurance company loss runs (company-wide, not insured-specific)
3. Bureau of Labor Statistics incident rates (NAICS code)
4. Bureau of Transportation Statistics
5. National Safety Council (accident facts – occupational and non-occupational)
6. Risk and Insurance Management Society Cost of Risk Survey
7. National Council on Compensation Insurance

### **Learning Objective 5:**

Explain why loss data must be collected and analyzed.

---

Loss data must be collected and analyzed in order to:

**Identify the causes of loss frequency and severity**

**Identify trends in loss experience and to forecast losses**

**Compare to benchmarks**

**Focus senior management's attention on the organization's total cost of risk**

**Assist with cost/benefit analysis of loss control initiatives**

**Establish a basis for allocating the total cost of risk**

1. Create incentives for loss control actions
2. Determine the optimum retention level for each location vs. the organization as a whole

**Assist with cost/benefit analysis of alternative methods of financing losses**

1. Decide to what degree to insure or retain losses
2. Choose deductibles and limits
3. Select a cash flow plan
4. Establish collateral amounts, e.g., letter of credit, surety bond

**Establish insurance programs**

1. Negotiate premium
2. Determine coverage restrictions and exclusions
3. Set appropriate reserves for loss-sensitive programs

**Establish a method for evaluating the performance of:**

1. Management of operating units and cost centers
2. Vendors – carriers, TPAs, brokers (external)
3. In-house claims adjusters
4. Employee safety incentive programs

**Address product/service development and pricing**

1. Include the total cost of risk in pricing of products and services
2. Redesign products or services based on expected losses

**Respond to legal or regulatory actions**

### **Examine frequency or severity of loss data to:**

1. Identify trends – triggers other identification methods
2. Search for root causes of losses
3. Identify unique losses/exposures

### **Evaluate time intervals in the claims process to identify:**

1. Opportunities for improvement in training and reporting policies – lengthy intervals between occurrence and reporting
2. Potential mishandling of claims or undocumented severity – lengthy intervals between occurrence and closing of claim file



Loss Data Analysis Example (severity):

The cost of workers' injuries had an increase of 25%

12/31/X1	\$ 400,000
12/31/X2	\$ 500,000

At first glance, the loss experience appears to be worsening.  
Is this enough information to determine if you have a severity problem?

Further analysis reveals that workers' payroll (exposure) had an increase of 50%

12/31/X1	\$10,000,000
12/31/X2	\$15,000,000

After comparing the loss experience to the exposure, the loss experience appears to be improving. Losses have increased by 25%, and the exposure has increased by 50%.

Barring a 50% increase in the pay level, it appears there are simply more workers; thus, the increased exposure.

## Review Of Learning Objectives

1. Identify the specific types of loss data that should be collected.
2. Identify methods of loss data collection.
3. Identify the characteristics of credible loss data.
4. List the changes in exposures that may have an impact on loss data and analysis.
5. Explain why loss data must be collected and analyzed.



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## Section 6

# **Risk Identification Methods III - Financial Statement Analysis**



## Resources

### [Key Terms](#)



### [Financial Statement Analysis](#)



## Risk Identification: Methods III Financial Statement Analysis

### Learning Objectives

1. Define Accounting and Finance and be able to differentiate between the two.
2. Identify the types of Accounting Systems a risk manager might encounter.
3. Distinguish between different property valuation methods.
4. Explain how Financial Statement Analysis is used as a risk identification tool.
5. Describe the purpose and components of the Income Statement.
6. Describe the purpose and components of the Balance Sheet.
7. Describe the purpose and components of the Statement of Cash Flows.
8. Understand the purpose, the formulas, and be able to calculate common financial ratios.
9. Provide the definition of cost of capital and identify sources of capital.

Risk management is charged with managing and minimizing the uncertainty of exposures that can adversely affect an organization's assets and financial statements. It is important that the risk manager understand financial statements, where the numbers come from, and how to analyze the data to identify opportunities, as well as exposures that may need to be managed.

## Accounting vs. Finance

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### **Learning Objective 1:**

Define accounting and finance and be able to differentiate between the two.

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**Accounting** – a process of recording and classifying business and financial transactions and reporting them on an organization's financial statements

1. Financial statements include information about assets, liabilities, shareholder (or stakeholder) equities and cash flows
2. Multiple sets of books are used for legitimate and specific uses – financial reporting, regulation, tax, internal management

**Finance** – a process of managing an organization's assets, liabilities and cash flows to maximize shareholder (or stakeholder) wealth

### **Learning Objective 2:**

Identify the types of accounting systems a risk manager might encounter.

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**Financial Accounting under Generally Accepted Accounting Principles (GAAP)** – particularly if the organization is publicly held

**Statutory Accounting under Generally Accepted Statutory Accounting Principles (STAT or SAP, also sometimes referred to as RAP, Regulatory Accounting Principles)** – if the organization is operating or participating in a captive insurance company

**Tax Accounting Under Internal Revenue Service Rules and Guidelines;** the risk manager for a 501 (c) (3) organization needs to be aware of the tax rules

**Governmental or Fund Accounting** that is not performed with a dual entry system – if the organization is a governmental body or a “non-profit” organization using a simplified accounting system

**Managerial Accounting** – an internal accounting system that provides accurate and timely financial information to make short-term and day-to-day financial decisions

### A Risk Management Program:

As part of the identification of property exposures, some degree of assessment and valuation is required to determine the financial amount at risk. More than one valuation method may be used by an organization for different purposes. For example, the valuation of a building for tax purposes will not be the same as the valuation for insurance purposes. It is important to understand what type of valuation is being used when looking at financial statements.

**Property Exposures** – valuations are estimated *before* the loss and measured *after* the loss – to the extent of the financial consequences suffered.

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### Learning Objective 3:

Distinguish between different property valuation methods.

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Property valuations are estimated and measured by the following common methodologies:

1. Historical cost
2. Book value
3. Market value
4. Replacement cost
5. Actual cash value
6. Economic value
7. Functional replacement cost



1. **Historical cost** – the original purchase price of property

*Example: the value of a building on the day of purchase as shown on the financial statement*

2. **Book value** – the historical cost less accumulated depreciation

*Example: the value of the same building, less depreciation, as carried on subsequent financial statements. This valuation is used by financial and accounting personnel in the creation of balance sheets, whether internal or for the general public and regulators.*

3. **Market value** – the amount a willing buyer will give to a willing seller

*Example: The highest estimated price that a buyer would pay and a seller would accept for the building in an open and competitive market.*

4. **Replacement cost** – the amount to replace a damaged or destroyed piece of property with new property of like kind and quality with no regard for depreciation

*Example: The cost to repair the building damaged by a tornado, using the same quality of construction and operational utility, with no deduction for depreciation.*

5. **Actual cash value** – the replacement cost less an allowance for depreciation or obsolescence

*Example: The amount, which includes a deduction for depreciation, paid by a carrier to replace a stolen truck*

6. **Economic value** – a future stream of income assigned to the property

*Example: Leasehold value of rental property, future rental income.*

7. **Functional replacement cost** – the cost to repair or replace damaged or destroyed property with materials that are functionally the equivalent of the damaged or destroyed property.

*Example: A 200-year-old bank building with the original vault and tellers' cages and stained-glass windows, now operates as a hotel. It is valued at its functional replacement value (hotel) because, if damaged, identical materials are no longer available or are cost prohibitive.*

Note:

On financial statements, fixed assets (long-term, or those which will be used for more than one year) are recorded initially at the historical cost that is then adjusted downward for accounting depreciation. The result is the book value of the asset, which has no real relationship to replacement cost or "insurance" depreciation.



## PRACTICE EXERCISE

Diamond Creek Cancun just suffered a windstorm loss to the hotel building from a recent tropical storm system and is preparing its insurance proof of loss. The risk management department and accounting department have prepared the following exhibit:

Cost to build ten years ago	\$ 37,000,000
Current construction cost	52,000,000
Accumulated depreciation as per the accounting records	6,000,000
Current comparable value appraisal for refinancing effort (30% of value was land)	80,000,000
Net present value of future income for the next 40 years	75,000,000
The insurance adjustor's calculated depreciation	12,000,000

Calculate the following property valuations:

Historical cost	_____
Market value	_____
Book value	_____
Replacement cost	_____
Actual cash value	_____
Economic value	_____

**Outside or Independent Auditor's Opinion Letter** – an external opinion of the fairness and accuracy of the information contained in the financial statements and the conformity to stated accounting standards

- Unless financial statements are audited by an outsider, there may be concerns about the accuracy of the information contained in the reports

**Notes to the Financial Statements** – explanation of the contents of the financial statements, rules by which the financial statements are drawn, and non-financial information that impacts the numbers

### Financial Statements

1. Income statement – summary of the organization's financial performance for a specific period of time.
2. Balance sheet – summary of the organization's assets, liabilities and owner's equity as of a specific point in time.
3. Statement of cash flows – summary of the effects of cash on the operating, investing and financial activities of an organization for a specific period of time.

## Important Considerations

1. Risk managers will normally have Managerial Accounting or internal accounting statements available. These statements do not have auditor's opinions and may not have notes. These statements reflect what is actually happening in the organization financially, and are not affected by tax rules or Securities Exchange Commission rules.
2. "Specific period of time" for the Income Statement or Statement of Cash Flow is not necessarily a calendar year. Statements can be drawn on a quarterly, monthly, or weekly basis.

Income Statement	
Dec 31, 2015 and Dec 31, 2016]	
2015	2016
950 000	1 300 000
40 000	75 000
20 000	25 000
200 000	250 000
<b>1 210 000</b>	<b>1 650 000</b>

### **Learning Objective 4:**

Explain how financial statement analysis is used as a risk identification tool.

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1. Review asset valuation: those assets useful for determining an organization's values exposed to loss, e.g., inventory, accounts receivable (Balance Sheet)
  - Financial statements are based on historical data that may not be relevant in a current circumstance
  
2. Assess net income loss potential (Income Statement)
  - Sources of income and expenses
  
  - Financial impact of a loss on profit
  
  - When and where a loss occurs (e.g., low or high season, before or after or during a season; which locations, divisions, branch, etc.)
  
  - Expenses that will continue in the event of a loss
  
  - Expenses that are controllable
  
  - Hidden assets and liabilities, e.g., undisclosed assets, leased assets, off balance sheet liabilities

3. Evaluate expansion plans (Balance Sheet, Statement of Cash Flows)
4. Assess liquidity and cash flows (Balance Sheet, Statement of Cash Flows)
5. Determine management's tolerance for risk (ALL)
6. Determine risk assumed by contract, e.g., leases, hold-harmless (Notes)
7. Determine financial ability to qualify for surety bonds (ALL)
8. Identify outstanding and previous litigation (Notes)
9. Create financial projections or pro-forma statements (ALL)
10. Identify key suppliers and customers (Balance Sheet, Income Statement)

### **Learning Objective 5:**

Describe the purpose and components of the income statement.

---

**Purpose** – summary of the organization’s financial performance for a specific period of time.

**Components:**

1. Revenue or sales – examples
  - Operating revenue, e.g., sales of goods and services
  - Non-operating revenue, e.g., interest income
  - Gains, e.g., sale of a long-term asset
  
2. Expenses
  - Operating expenses associated with operating revenue, e.g. rent, utilities
  - Non-operating expenses, e.g. cost of restructuring and lawsuit expenses
  - Losses, e.g., sale of long-term assets at a loss



### 3. Cost of Goods Sold (COGS)

- Definition – labor, material and overhead expenses both direct and indirect, of the merchandise sold during a certain period
- Understanding the calculation of the COGS is essential for evaluation of business interruption exposures and potential claims

### 4. Depreciation, depletion, and amortization

- Depreciation – the reduction in the value of an asset over time. Accounting depreciation is a tax-management concept that allows for the setting aside of funds to replace assets as they wear out and provides an expense to reduce income. Depreciation lowers income and tax liability; thereby, generating positive cash flows.
- Depletion – reduction in inventory and a charge against income for the consumption of natural resources, e.g., oil, coal
- Amortization – the periodic reduction in the book value of a fixed asset

5. Interest expense
  
6. Taxes (tax rates and tax credits)
  
7. Profitability measures
  - Gross profit = sales revenue less COGS  
Gross profit margin as a percentage of sales =  $\text{gross profit} \div \text{sales}$
  
  - Operating income = gross profit less operating expenses  
Operating income as a percentage of sales =  $\text{operating income} \div \text{sales}$
  
  - Net income = operating income less interest expense and taxes  
Net income margin as a percentage of sales =  $\text{net income} \div \text{sales}$
  
  - Earnings per share =  
 $\text{after-tax net income} \div \text{number of common shares of stock outstanding}$

## Sample of a Consolidated Income Statement

For the years ended December 31, FYX1 and FYX0

	<u>FYX1</u>	<u>FYX0</u>
Revenue	\$ 350,000,000	\$ 325,000,000
Less: Operating expenses	312,500,000	285,000,000
Less: Depreciation expenses	<u>15,000,000</u>	<u>15,000,000</u>
Net operating income (EBIT)	\$ 22,500,000	\$ 25,000,000
Less: Interest expense	<u>10,000,000</u>	<u>11,000,000</u>
Earnings before taxes	\$ 12,500,000	\$ 14,000,000
Less: Income taxes	<u>5,000,000</u>	<u>5,600,000</u>
Net income (net profit after tax)	\$ 7,500,000	\$ 8,400,000
Less: Dividends to common shareholders	<u>3,500,000</u>	<u>3,500,000</u>
Addition to retained earnings	\$ 4,000,000	\$ 4,900,000
Earnings per share (5,000,000 shares outstanding)	\$1.50	\$1.68

### **Learning Objective 6:**

Describe the purpose and components of the balance sheet.

---

**Purpose** –a summary of the organization’s assets, liabilities and owner’s equity as of a specific point in time.

#### **Components:**

Current assets – assets that will be (could be) converted into cash or consumed within one year or less

1. Cash
2. Accounts receivable
3. Inventory
  - a. Types
    - Raw materials
    - Work-in-process (unfinished inventory)
    - Finished goods

- b. Alternatives for maintaining inventory levels can complicate inventory and business interruption evaluations
  - Just-In-Time (JIT) inventory (on demand)
  - Synchronous production with suppliers
  
- 4. Marketable securities – highly liquid securities that have a low but positive yield, normally publicly traded stocks and bonds

Fixed assets – assets with an expected life in excess of one year

1. Property, plant and equipment – net of depreciation
2. Investments – consolidated and unconsolidated
3. Intangible assets – patents and goodwill (subject to amortization)

Current liabilities – expected to be paid within one year; short-term obligations

1. Accounts payable or trade credit
2. Accruals
3. Short-term notes payable and current portion of long-term debt

Long-term liabilities – not expected to be paid within one year

1. Mortgages
2. Deferred income tax liability
3. Long-term debt

Stockholder's equity (or stakeholder's interest)

1. Common stock
2. Preferred stock
3. Additional paid-in capital
4. Retained earnings (or excess of revenues over expenses)

## Sample Consolidated Balance Sheet

For the years December 31, FYX1 and FYX0  
(\$ in thousands)

<u>Assets</u>	<u>FYX1</u>	<u>FYX0</u>
Current assets		
Cash	\$147,000	\$122,000
Inventories	26,000	32,000
Accounts receivable	<u>13,000</u>	<u>15,000</u>
Total current assets	\$186,000	\$169,000
Fixed assets		
Property	\$344,000	\$344,000
Less: Accumulated depreciation	<u>67,000</u>	<u>52,000</u>
Net fixed assets	<u>\$277,000</u>	<u>\$292,000</u>
<b>Total assets</b>	<b><u>\$463,000</u></b>	<b><u>\$461,000</u></b>
 <b><u>Liabilities and Stockholders' Equity</u></b>		
Current liabilities		
Accounts payable	\$ 11,000	\$ 9,000
Notes payable	25,000	25,000
Other current liabilities	<u>3,000</u>	<u>3,000</u>
Total current liabilities	\$ 39,000	\$ 37,000
Long-term debt	<u>289,000</u>	<u>293,000</u>
Total liabilities	\$328,000	\$330,000
Stockholders' equity		
Common stock	50,000	50,000
(5,000,000 shares outstanding at par of \$10)		
Retained earnings	<u>85,000</u>	<u>81,000</u>
Total stockholder equity	<u>\$135,000</u>	<u>\$131,000</u>
<b>Total liabilities and equity</b>	<b><u>\$463,000</u></b>	<b><u>\$461,000</u></b>

### **Learning Objective 7:**

Describe the purpose and components of the statement of cash flows.

---

**Purpose** – a report summarizing the effects of cash on the operating, investing and financial activities of an organization for a specific period of time.

#### **Components:**

##### Operating activities

1. Cash received from
  - a. Sales of goods or services
  - b. Interest revenue
  - c. Dividend revenue
  - d. Other sources that are not investment or finance activities
  
2. Cash paid for
  - a. Raw materials or inventory
  - b. Salaries and wages
  - c. Taxes, duties, fines, penalties
  - d. Interest expense
  - e. Other expenses that are not investment or finance activities



### Investing activities

1. Cash received from
  - a. Collections or sales of loans
  - b. Sale of equity investments and return of investments from those instruments
  - c. Sale of property, plant, equipment
2. Cash paid for
  - a. Loans made and payments made to acquire debt
  - b. Purchase of equity investments of other entities
  - c. Purchase of property, plant, equipment

### Financing activities

1. Cash received from
  - a. Issuing equity investments
  - b. Sale of bonds, mortgages, notes
2. Cash paid for:
  - a. Cash dividends
  - b. Purchase of treasury stock
  - c. Repayment of loans

Other non-cash expenses or transactions requiring an adjustment to the statement of cash flows

1. Deductions from revenue that do not require a cash outlay and are added back to income
  - a. Depreciation
  - b. Depletion expensed
  - c. Amortization of intangible assets (patents and goodwill)
  - d. Amortization of discount on bonds payable
  - e. Losses from disposal of non-current assets
  
2. Non-cash revenues or credits that require a deduction from net income
  - a. Gains from disposals of non-current assets
  - b. Income from investments carried under equity method
  - c. Amortization of premium on bonds payable

## Sample Consolidated Statement of Cash Flows

For Year Ended 12/31/20XX

(\$ in thousands)

	<u>Inflows</u>	<u>Outflows</u>
Cash inflows from operating activities <sup>1</sup>	\$ 32,500	
Cash outflows from operating activities		\$ 0
Cash inflows from investing activities	\$ 0	
Cash outflows from investing activities		\$ 0
Cash inflows from financing activities	\$ 0	
Cash outflows from financing activities <sup>2</sup>		<u>\$ 7,500</u>
Total inflows	\$ 32,500	
Total outflows		\$ 7,500
Net increase in cash	\$ 25,000	
Beginning cash	\$ <u>122,000</u>	
Ending cash	\$ 147,000	
Net increase in cash	\$ 25,000	

### Notes to the Statement of Cash Flows

#### <sup>1</sup>Cash inflows from operating activities

Net income	\$ 7,500
Change in accounts receivable	2,000
Change in inventory	6,000
Change in accounts payable	2,000
Change in depreciation	<u>15,000</u>
Total	\$ 32,500

#### <sup>2</sup>Cash outflows from financing activities

Payment of dividends	\$ 3,500
Retirement of long-term debt	<u>4,000</u>
Total	\$ 7,500

Note: It would be unusual to have no cash flow from investing activities.

The example is designed to provide a simple illustration of a Statement of Cash Flows, its information content, and its relationship to the Income Statement and Balance Sheet.

### **Learning Objective 8:**

Understand the purpose, the formulas, and be able to calculate common financial ratios.

---

#### **Purpose of financial analysis and financial ratios:**

1. Financial analysis assists with financial decision-making, establishing credit policies, and measuring operational efficiency and employee performance. It involves the selection, evaluation and interpretation of financial data.
2. Financial ratios are used by financial managers as indicators of financial performance and the financial health of the organization.

#### **Financial ratios (by purpose)**

1. *Liquidity ratios* measure the organization's ability to pay bills over the short term
  - Current ratio =  $\text{current assets} \div \text{current liabilities}$
  - Quick ratio =  $(\text{current assets} - \text{inventory}) \div \text{current liabilities}$
  - Net working capital =  $\text{current assets} - \text{current liabilities}$
2. *Debt ratios* measure the organization's ability to repay its creditors over the long term and assess the organization's financial leverage
  - Debt ratio =  $\text{total debt} \div \text{total assets}$
  - Debt-to-equity ratio =  $\text{total debt} \div \text{stockholders equity}$

3. *Coverage ratios* measure the organization's ability to meet interest requirements, or how many times the interest is earned during the accounting period; a measure of the risk of default on debt obligations
  - Times interest earned = earnings before interest and taxes (EBIT) ÷ total interest paid during the accounting period
  
4. *Profitability ratios* measure the returns on various bases
  - Net profit margin = net income ÷ sales
  
  - Return on assets (ROA) = net income ÷ total assets
  
  - Return on equity (ROE) = net income ÷ stockholders' equity
  
  - Earnings per share (EPS) =  
after-tax net income ÷ number of shares of outstanding common stock
  
5. *Market ratios* measure the value of an organization's common stock in the financial market
  - Price/earnings (P/E ratio) =  
market price per share of common stock ÷ earnings per share
  
  - Market/book ratio =  
market price per share of common stock ÷ book value per share

## Key Financial Ratios

### Liquidity

Current Ratio =  $\frac{\text{Current Assets}}{\text{Current Liabilities}}$  Benchmark-Standard = 1.50 & up

Quick Ratio =  $\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$  Benchmark-Standard = 1.00 & up

Net working capital = Current Assets – Current Liabilities

---

### Debt

Debt Ratio =  $\frac{\text{Total Debt}}{\text{Total Assets}}$  Benchmark-Standard = .50 & down

Debt to Equity Ratio =  $\frac{\text{Total Debt}}{\text{Stockholders' Equity}}$  Benchmark-Standard = 1.00 & down

---

### Coverage

Times Interest Earned =  $\frac{\text{EBIT}}{\text{Interest Charges}}$  Benchmark-Standard = 4 to 7 and up

---

### Profitability

Net Profit Margin =  $\frac{\text{Net Income}}{\text{Sales}}$  Benchmark Standard varies by industry

Return on Assets (ROA) =  $\frac{\text{Net Income}}{\text{Total Assets}}$  Benchmark-Standard varies by industry

Return on Equity (ROE) =  $\frac{\text{Net Income}}{\text{Equity}}$  Benchmark-Standard = 15%

Earnings per Share =  $\frac{\text{After-tax Net Income}}{\text{number of common shares outstanding}}$

---

### Market

Price/earnings ratio =  $\frac{\text{Market price per share}}{\text{Earnings per share}}$

Market/book =  $\frac{\text{Market price per share}}{\text{Book value per share}}$

---



## PRACTICE EXERCISE

Mary Donner, a risk manager, is preparing a report on the state of the risk management department for Sarah Packer, the CFO. Mary knows that Sarah supports the use of financial statement ratio analysis in measuring progress of the company over time.

Mary calculates the current ratio, debt ratio, net profit margin, and P/E ratio by using the most recent financial statements to measure the progress of the organization. She prepares a report to share with Sarah that discloses the following financial information.

What red flags can you identify from these numbers?

<b>Current Ratio</b>	$186,000/39,000 = 4.77$ Current assets/current liabilities
<b>Debt Ratio</b>	$328,000/463,000 = 70.8\%$ Total debt/total assets
<b>Net Profit Margin</b>	$7,500/350,000 = 2.14\%$ Net income/sales
<b>Return on Equity</b>	$7,500/135,000 = 5.5\%$ Net Income/Equity
<b>Price/Earnings Ratio</b>	$15/1.50 = 10$ Market price per share/Earnings per share

## Financial Ratio Analysis as a Decision-making Tool

1. Risk management initiatives may have an impact on the financial structure of the organization and the organization's resulting financial ratios
2. Other management decisions concerning operations, investing, and financing may affect the financial structure of the organization and have an impact on risk management initiatives
3. Because of the difference in relying on source information, financial ratios calculated by financial managers may differ from those calculated by risk managers.
4. Examples
  - a. Risk management initiatives may affect capital outlays (investing on cash flow statement), expenses, sales, or other items found on the financial statements
  - b. Capital outlays may affect current assets, fixed assets, and net income (to the extent of depreciation expense) and cash flow
  - c. Expenses may affect cash flow, current liabilities, and net income
  - d. Liability reserves may affect current and long-term liabilities, future net income and cash flow
  - e. Uncovered losses (retained losses) may affect net income, long-term liabilities, current assets, current liabilities and cash flow
  - f. The organization's financial status may affect the ability to obtain credit or surety, to financially guarantee certain insurance programs and to obtain insurance coverage



### **Learning Objective 9:**

Provide the definition of cost of capital and identify sources of capital.

---

**Definition:** the cost associated with various sources of financing to the organization and used to determine which sources are cost effective and should be undertaken.

6

The risk manager must understand that there are monetary costs associated with each source of capital, however, there are additional risks to consider, such as investor control, compliance requirements and additional stakeholders.

#### **Sources of capital:**

1. Long-term debt – funds borrowed from external sources; least expensive source of capital
  - Low risk to the investor
  - Interest is tax-deductible
2. Preferred stock – type of stock issued by a corporation that allows ownership privileges with respect to payment of dividends and distribution of assets greater than those of common stock owners but with no voting rights

3. Common stock – share or shares of ownership in a corporation with rights to vote on management and corporate policy but not preferred over other classes of stock in regard to the payment of dividends or distribution of assets
4. Retained earnings – internal funds retained from net income and not distributed to holders of common stock
5. Alternative financing
  - Crowdfunding
  - Factoring (financing accounts receivable)
  - Revenue-based (future earnings, i.e. Shark Tank)

#### **Providers of the cost of capital calculation**

1. The risk manager does not determine the cost of capital
2. The Chief Financial Officer determines the cost of capital to use for analysis and decisions
3. The Chief Financial Officer provides the desired rate of return on projects

## Review Of Learning Objectives

1. Define Accounting and Finance and be able to differentiate between the two.
2. Identify the types of Accounting Systems a risk manager might encounter.
3. Distinguish between different property valuation methods.
4. Explain how Financial Statement Analysis is used as a risk identification tool.
5. Describe the purpose and components of the Income Statement.
6. Describe the purpose and components of the Balance Sheet.
7. Describe the purpose and components of the Statement of Cash Flows.
8. Understand the purpose, the formulas, and be able to calculate common financial ratios.
9. Provide the definition of cost of capital and identify sources of capital.





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## Section 7

# **Risk Identification Methods IV - Internal and External Review**



### Experts



### Compliance



### Insurance Policy Review



## Risk Identification: Methods IV Internal & External Review

### Learning Objectives

1. Explain the purpose and characteristics of using an expert in the risk identification process.
2. Explain the purpose and characteristics of compliance review in the risk identification process.
3. Explain the purpose and considerations when conducting an insurance policy review in the risk identification process.
4. Explain the purpose and characteristics of policies and procedures review in the risk identification process.
5. Explain the purpose and characteristics of non-insurance contract review in the risk identification process.

## Learning Objective 1:

Explain the purpose and characteristics of using an expert in the risk identification process.

**Purpose** – The Risk Manager may not have knowledge in all areas of the organization. Individuals/organizations with specialized knowledge in a specific area may be needed to identify exposures.

### Applications

1. Internal Expertise
  - Staff or functional positions, e.g. accounting
  - Operational, e.g. engineering
  
2. External Expertise
  - Specialty, e.g. ergonomics
  - Industry, e.g. best practices



### Characteristics

1. Saves time
2. Brings a higher level of experience to focus on exposures
3. Can be difficult - qualified experts may be hard to find or unavailable
4. Can be expensive



### **Learning Objective 2:**

Explain the purpose and characteristics of compliance review in the risk identification process.

---

**Purpose** – used to identify risks by examining the organization’s compliance with regulations and laws.

#### **Types of compliance review:**

1. Statutory/Legal Requirements
  - a. Local – no-smoking ordinances
  - b. State – taxes and unemployment
  - c. Federal – ADA, FMLA, EEO, OSHA
  - d. International – import, export, banking
  
2. Professional
  - a. Voluntary
  - b. Involuntary/Mandated, e.g. franchise requirements
  - c. Industry
  - d. Government insurance programs

**Application:**

1. Identifies key regulations or laws
2. Reviews operations to ascertain compliance (risk exposures)
3. Identifies exposures so that, risk control and mitigation steps can be taken

**Characteristics:**

1. Most are free of charge
2. Provides outside opinion, whether you want it or not
3. Little or no control over compliance evaluation
4. May focus unwanted attention on organization and expose it to liability, fines, penalties or injunctions



**Exhibit**

**COMPLIANCE REVIEW**

**(Example from U. S. financial institution)**

Federal Deposit Insurance Corporation  
Office of Director  
Washington D.C.  
Division of Supervision

To: Chief Executive Officer

Subject: Guidelines for an environmental risk program

A lending institution should have in place appropriate safeguards and controls to limit exposure to potential environmental liability associated with real property held as collateral. The attached guidelines contain information and recommendations about implementing an environmental risk program that can be tailored to the needs of the lending institution. Examiners will review the institution's compliance with its own environmental risk program as part of the examination of lending and investment activities.

For further information, please contact your Division of Supervision regional office.

Director

Attachment

Distribution: FDIC-Supervised Banks (commercial and savings)

### **Learning Objective 3:**

Explain the purpose and considerations when conducting an insurance policy review in the risk identification process.

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**Purpose** –used to identify exposures and perils arising from coverage gaps, insufficient limits, coverage limitations and exclusions.

#### **Application:**

1. May need to be performed by external individuals, as it requires policy interpretation and application experience
2. The review should confirm that the policies are aligned with the organization's structure, operations and its risk-taking appetite and ability



## Considerations:

1. Policy definitions are not always the same as common usage, e.g. milk was determined to be a “pollutant” under the policy definitions, and was upheld by the court
2. Policies state specifically what is covered and what is excluded, may also be silent as to coverage, e.g., the liability section of the Homeowner’s policy covers Bodily Injury and Property Damage and neither covers nor excludes Personal Injury
3. Policies are not standardized and should be reviewed carefully at renewal and when changing carriers
4. Policies may contain conditions which may void coverage if not complied with; e.g., protective safeguards, value reporting, warranties
5. Incorrect or incomplete information (legal entity, named insured(s) locations, values) may create coverage gaps or insufficient limits
6. Policy reviews should be combined with other risk identification methods such as contract review

### **Learning Objective 4:**

Explain the purpose and characteristics of policies and procedures review in the risk identification process.

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**Purpose** –used to identify exposures arising from organizational functions and operations.

#### **Documents that may be used:**

1. Organization’s charter and bylaws
2. Board minutes
3. Employee manuals, Procedure manuals
4. Mission statements, Code of ethics
5. Organizational charts, reporting structures
6. Risk management policies

#### **Characteristics:**

1. Identifies areas within the organization which may not conform with stated policies, e.g. Attendance management
2. Identifies areas within the organization which may not be addressed by stated policies, e.g. Same sex partnership health benefits
3. Varied exposures may be found by review, e.g. employment practices liabilities, employee relations issues, discrimination, reputational issues, ADA
4. Organizational politics may prevent effective treatment

### **Learning Objective 5:**

Explain the purpose and characteristics of non-insurance contract review in the risk identification process.

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**Purpose** –used to identify risks arising from obligations and compliance with contractual provisions or requirements.

#### **Documents for review:**

1. Leases
2. Hold harmless and indemnification agreements
3. Purchase orders and sales contracts
4. Bills of lading
5. Advertising materials and warranties
6. Employment contracts
7. Service contracts

#### **Characteristics:**

1. May identify gaps or holes in the risk management plan and/or failures to meet contractual obligations or requirements
2. Contract review may identify reliance on a second party who may not conform to contract provisions – creating exposures, e.g. tenant agrees to provide property insurance but might not be able or willing to do so
3. May identify representations or warranties that are not intended

## Review Of Learning Objectives

1. Explain the purpose and characteristics of using an expert in the risk identification process.
2. Explain the purpose and characteristics of compliance review in the risk identification process.
3. Explain the purpose and considerations when conducting an insurance policy review in the risk identification process.
4. Explain the purpose and characteristics of policies and procedures review in the risk identification process.
5. Explain the purpose and characteristics of non-insurance contract review in the risk identification process.



