**CHAPTER TWO**

**RISK MANAGEMENT**

**2.1. MEANING OF RISK MANAGEMENT**

Risk Management is defined as a systematic process for the identification and evaluation of pure loss exposures faced by an organization or individual, and for the selection and implementation of the most appropriate techniques for treating such exposures. It is a scientific approach to deal with pure risks by anticipating possible accidental losses and designing and implementing procedures that minimize the occurrence of loss or the financial impact of the losses that do occur. Risk management focuses on a part of the total bundle of risks, those that are classified as “pure risk.” As a general rule, the risk manager is concerned only with the management of pure risks, not speculative risks. All pure risks are considered, including those that are uninsurable. Hence, risk management is the identification, measurement, and treatment of property, liability, and personnel pure-risk exposures.

**2.2. OBJECTIVES OF RISK MANAGEMENT**

Risk management has several important objectives that can be classified into two categories: pre-loss objectives and post-loss objectives.

**Pre-loss Objectives**

Economy

Reduction in anxiety

Meeting external obligations **Post-loss Objectives**

Survival

Continuity of operation

Earnings stability

Continued growth

Social responsibility

**Pre loss Objectives**

A firm or organization has several risk management objectives prior to the occurrence of a loss. The most important include economy, the reduction of anxiety, and meeting externally imposed obligations.

The first objective means that the firm should prepare for potential losses in the most economical way. This involves an analysis of safety program expenses, insurance premiums, and the costs associated with the different techniques for handling losses.

The second objective, the reduction of anxiety, is more complicated. Certain loss exposures can cause greater worry and fear for the risk manager, key executives, and stockholders than other exposures. For example, the threat of a catastrophic lawsuit from a defective product can cause greater anxiety and concern than a possible small loss form a minor fire. However, the risk manager wants to minimize the anxiety and fear associated with all loss exposures.

The third objective is to meet any externally imposed obligations. This means the firm must meet certain obligations imposed on it by outsiders. For example, government regulations may require a firm to install safety devices to protect workers from harm. Similarly, a firm’s creditors may require that property pledged as collateral for a loan must be insured. The risk manager must see that these externally imposed obligations are met.

**Post loss Objectives**

The first and most important post loss objective is survival of the firm. Survival means that after a loss occurs, the firm can at least resume partial operation within some reasonable time period if it chooses to do so.

The second post loss objective is to continue operating. For some firms, the ability to operate after a sever loss is an extremely important objective. This is particularly true of the certain firms, such as a public utility firm, which must continue to provide service. The ability to operate is also important for firms that may lose customers to competitors if they cannot operate after a loss occurs. This would include banks, bakeries, dairies, and other competitive firms.

Stability of earnings is the third post loss objective. The firm wants to maintain its earnings per share after a loss occurs. This objective is closely related to the objective of continued operations. Earnings per share can be maintained if the firm continues to operate. However, there may be substantial costs involved in achieving this goal (such as operating at another location), and perfect stability of earnings may not be attained.

The fourth post loss objective is continued growth of the firm. A firm may grow by developing new products and markets or by acquisitions and mergers. The risk manager must consider the impact that a loss will have on the firm’s ability to grow.

Finally, the goal of social responsibility is to minimize the impact that a loss has on other persons on society. A server loss can adversely affect employees, customers, suppliers, creditors, taxpayers, and the community in general. For example, a severe loss requires shutting down a plant in a small community for an extended period can lead to depressed business conditions and substantial unemployment in the community.

**2.3. THE RISK MANAGEMENT PROCESS**

In order to have an effective risk management program, the risk manager must take certain steps. There are four steps in the risk management process:

1. Identifying potential losses
2. Evaluating potential losses
3. Selecting the appropriate technique, or combination of techniques for treating loss exposures
4. Implementing and administering the program

Identifying potential losses

Evaluating potential losses

Selecting the appropriate technique for handling losses

Risk control techniques

* Avoidance
* Loss control
* Separation/Diversification
* Combination

Risk financing techniques

* Retention/Assumption
* Self - insurance
* Non- insurance
* Insurance

Implement and administer the program

**2.3.1. Identifying Potential Losses**

The first step in the risk management process is to identify all pure loss exposures. Risk identification is the process by which a business systematically and continuously identifies property, liability, and personnel exposures as soon as or before they emerge. Unless the risk manager identifies all the potential losses confronting the firm, he or she will not have any opportunity to determine the best way to handle the undiscovered risks. The business will unconsciously retain these risks, and this may not be the best or even a good thing to do.

Risk identification is a very difficult process because the risk manager has to look into all operations of the company, so as to identify where exactly risks emanate from. Risk identification is a continuous job for him or her since risk environment is dynamic. Both obvious and hidden risks need to be identified. As compared to obvious risks, hidden risks pose a more serious threat because the organization is least prepared for them. Therefore, it becomes necessary to have a proper system that identifies all kinds of risks on a continuous basis. The risk manager has to recognize exposures to loss, i.e., he or she must first of all be aware of the possibility of each type of loss. This is a fundamental duty that must precede all other functions.

Obviously, before anything can be done about the risks an organization faces, someone must be aware of them. In one way or another, the risk manager must dig into the operations of the organization and discover the risks to which it is exposed. It is difficult to generalize about the risks that a given organization is likely to face, because differences in operations and conditions give risk to differing risks. Some risks are relatively obvious, while there are many that can be, and often are, overlooked. To reduce the possibility of overlooking important risks, most risk managers use some systematic approach to the problem of risk identification. A few of their more important tools include insurance policy checklists, risk analysis questionnaires, flow process charts, analysis of financial statements, and inspections of the firm’s operations.

**2.3.2. Evaluating Potential Losses**

The second step in the risk management process is to evaluate and measure the impact of losses on the firm. This involves an estimation of the potential frequency and severity of loss.

**Loss frequency** refers to the probable **number** of losses that may occur during some given period of time. **Loss severity** refers to the probable **size** of the losses that may occur. Once the risk manager estimates the frequency and severity of loss for each type of loss exposure, the various loss exposures can be ranked according to their relative importance. For example, a loss exposure with the potential for bankrupting the firm is much more important than an exposure with a small loss potential.

Although the risk manager must consider both loss frequency and loss severity, severity is more important. Therefore, the risk manager must also consider all losses that can result from a single event. Both the maximum possible loss and maximum probable loss must also be estimated.

Catastrophic losses are difficult to predict because they occur infrequently. However, their potential impact on the firm must be given high priority. In contrast, certain losses such as physical damage losses to automobiles and trucks, occur with greater frequency, but are usually relatively small. This can be predicted with greater accuracy.

**2.3.3. Selecting the Appropriate Technique for Treating Loss Exposures**

The third step in the risk management process is to select the most appropriate technique, or combination of techniques, for treating each loss exposure. The major techniques for treating loss exposures are the following:

**Risk control techniques**

* Avoidance
* Loss control
* Separation, /Diversification/
* Combination

**Risk financing techniques**

* Retention /Assumption/
* Self-insurance
* Noninsurance transfers
* Insurance

**Risk Control Techniques**

Risk control techniques attempt to reduce the frequency and severity of accidental losses to the firm.

**Avoidance**

Avoidance means that a certain loss exposure is never acquired, or an existing loss exposure is abandoned. One way to control a particular risk is to avoid the property, person, or activity giving rise to possible loss by either refusing to assume it even momentarily or by abandoning an exposure to loss assumed earlier. The first of these avoidance activities is proactive avoidance, while the second is abandonment. If a business does not want to be concerned about potential property losses to a building or to a fleet of cars, it can avoid these risks by never acquiring any interest in a building or fleet of cars. An existing loss exposure may also be abandoned. For example, a pharmaceutical firm that produces a drug with dangerous side effects may stop manufacturing that drug.

Avoidance, whether it be implemented by abandonment or by refusal to accept the risk, should also be distinguished from loss-control measure. Loss-control measures assume that the firm will retain the property, person, or activity creating the risk but that the firm will conduct its operations in the safest possible manner.

Avoidance is a useful, fairly common approach to the handling of risk. By avoiding a risk exposure the firm knows that it will not experience the potential losses or uncertainties that exposure may generate. On the other hand, it also loses the benefits that may have been derived from that exposure.

Some characteristics of avoidance should be noted:

1. Avoidance may be impossible. The more broadly the risk is defined, the more likely this is to be so. For example, the only way to avoid all liability exposures is to cease to exist.
2. The potential benefits to be gained from employing certain persons, owning a piece of property, or engaging in some activity may so far outweigh the potential losses and uncertainties involved that the risk manager will give little consideration to avoiding the exposure. For example, most businesses would find it almost impossible to operate without owning or renting a fleet of cars. Consequently they consider avoidance to be an impractical approach.
3. Avoiding a risk may create another risk. For example, a firm may avoid the risks associated with air shipments by substituting train and truck shipments. In the process, however, it has created some new risks.

**Loss Control**

Loss control is another method for handling loss in a risk management program. Loss-control activities are designed to reduce both the frequency and severity of losses. Loss-control measures attack risk by lowering the chance that a loss will occur or by reducing its severity if it does occur. Loss control has the unique ability to prevent or reduce losses for both the individual firm and society while permitting the firm to commence or continue the activity creating the risk.

Unlike the avoidance technique, loss control deals with an exposure that the firm does not wish to abandon. The purpose of loss-control activities is to change the characteristics of the exposure so that it is more acceptable to the firm; the firm wishes to keep the exposure but wants to reduce the frequency and severity of losses.

**Loss-Prevention and Reduction Methods**

Loss-prevention programs seek to reduce or eliminate the chance of loss. Loss-reduction programs seek to reduce the potential severity of the loss.

The variety of loss-prevention programs is illustrated by the following examples:

* The chance of a fire loss can be reduced by fire-resistive construction, building in an area where there are few external dangers, and having many suppliers in order that a fire loss suffered by one supplier will not halt the firm’s operations.
* The chance of a product liability suit can be reduced by tightening the quality control limits and choosing distributors more carefully.

Loss-reduction programs can be sub classified as minimization or salvage programs. Both try to limit the amount of the loss, the distinction between the two beings that minimization programs take effect in advance of the loss or while it is occurring, whereas salvage programs become effective after the loss is over. Automatic sprinklers, for example, are designed to minimize a fire loss by spraying water or some other substance upon a fire soon after it starts in order to confine the damage to a limited area. The restoration of the damaged property to the highest possible degree of usefulness would constitute a salvage operation.

Other examples of loss-reduction programs include alternate facilities to reduce the net income losses arising out of direct losses to the original facilities, periodic physical examinations for employees, immediate first aid for persons injured on the premises, medical care and rehabilitation programs for injured workers, fire alarms, internal accounting controls, actions against persons responsible for losses suffered by the firm, and speed limits for motor vehicles.

Many risk managers are in direct charge of their companies’ accident-prevention programs. Among their varied duties are:

1. Keeping accurate records of all accidents by number, type, cause, and total damage incurred.
2. Maintaining plant safety-inspection programs,
3. Devising ways and means to prevent recurrence of accidents
4. Keeping top management accident conscious.
5. Seeing that proper credits are obtained in the insurance premium for loss prevention measures.
6. Minimizing losses by proper salvage techniques and other action at the time of a loss.
7. Working with company engineers and architects in planning new construction to provide for maximum safety.

**Separation /Diversification/**

Another risk control tool is separation of the firm’s exposures to loss instead of concentrating them at one location where they might all be involved in the same loss. For example, instead of placing its entire inventory in one warehouse a firm may elect to separate this exposure by placing equal parts of the inventory in ten widely separated warehouses. If fire destroys one warehouse, the firm will have others from which to draw needed supplies. Another example is to disperse work operations in such a way that explosion or other catastrophe would not injure more than a limited number of persons.

To the extent that this separation of exposures reduces the maximum probable loss to one event, it may be regarded as a form of loss reduction. The probability of some loss actually increases. The probability that at least one of several units will suffer a loss is greater than the probability that any particular unit will suffer a loss. Emphasis is placed here, however, on the fact that through this separation the firm increases the number of independent exposure units under its control. Other things being equal, because of the law of large numbers, this increase reduces the risk, thus improving the firm’s ability to predict what its loss experience will be.

**Combination**

Combination or pooling makes loss experience more predictable by increasing the number of exposure units. The difference is that unlike separation, which spreads a specified number of exposure units, combination increases the number of exposure units under the control of the firm.

One way a firm can combine risk is to expand through internal growth. For example, a taxicab company may increase its fleet of automobiles. Combination also occurs when two firms merge or one acquires another. The new firm has more buildings, more automobiles, and more employees than either of the original companies.

Combination of pure risks is seldom the major reason why a firm expands its operations, but this combination may be an important by-product of merger or growth. (An example of pooling with respect to speculative risks, which may be a primary objective of merger or expansion, is the diversification of products by a business). Insurers, on the other hand, combine pure risks purposefully; they insure a large number of persons in order to improve their ability to predict their losses.

**Risk Financing Techniques**

Risk financing techniques provide for the funding of accidental losses after they occur.

**Retention/Assumption/**

The most common method of handling risk is retention by the organization. The source of the funds is the organization itself, including borrowed funds that the organization must repay. Retention may be passive or active, unconscious or conscious, unplanned or planned.

Retention is passive or unplanned when the risk manager is not aware that the exposure exists and consequently does not attempt to handle it. By default, therefore, the organization has elected to retain the risk associated with that exposure. Few, if any, organizations have identified all their exposures to property, liability, and human resource losses. Consequently, some unplanned retention is common-place and perhaps inevitable. If the risk identification has been poorly performed too much risk is passively retained. A related form of unplanned retention occurs when the risk manager has properly recognized the exposures but has underestimated the magnitude of the potential losses. Liability exposures exemplify the type of potential loss that is often underestimated.

Retention is active or planned when the risk manager considers other methods of handling the risk and consciously decides not to transfer the potential losses.

Self-insurance is a special case of active or planned retention. It is distinguished from the other type of retention usually referred to as noninsurance in that the organization has a large number of exposure units. Self-insurance is not insurance, because there is no transfer of the risk to an outsider. Self-insures and insurers, however, share the ability, though in different degrees, to predict their future loss experience.

Retention can be effectively used in a risk management program when three conditions exist.

1. When no other method of treatment is available. Insurers may be unwilling to write a certain type of coverage, or the coverage may be too expensive. Non-insurance transfers may not be available. In addition, although loss control can reduce the frequency of loss, all losses cannot be eliminated. In these cases, retention is a residual method. If the exposure cannot be insured or transferred, then it must be retained.
2. When the worst possible loss is not bankrupt the firm if the automobiles are separated by wide distances and are not likely to be simultaneously damaged.
3. When losses are highly predictable. Based on past experience, the risk manager can estimate a probable range of frequency and severity of actual losses. If most losses fall within that range, they can be budgeted out of the firm’s income.

**Self-insurance**

**Self-insurance** is a special form of planned retention by which part or all of a given loss exposure is retained by the firm. A better name for self-insurance is self-funding, which expresses more clearly the idea that losses are funded and paid by the firm.

Risk retention, planned or unplanned, should not be confused with the concept of self-insurance. Although self-insurance requires risk retention, it implies an attempt by a business to combine a sufficient number of its own similar exposures to predict the losses accurately. Furthermore, a self-insurance plan implies that adequate financial arrangements have been made in advance to provide funds to pay for losses should they occur. Unless payments to the self-insurance fun are calculated scientifically and paid regularly, a true self-insurance system does not exist.

Self-insurance plans are distinguished from other insurance operations by having the pooling of exposures and funding of the cost of losses takes place within one business entity.

Self-insurance is widely used in workers compensation insurance. Self-insurance is also used by employers to provide group health, dental, vision, and prescription drug benefits to employees. Firms often self-insure their group health-insurance benefits because they can save money and control health-care costs.

**Non insurance Transfers**

**Non insurance transfers** are methods other than insurance by which a pure risk and its potential financial consequences are transferred to another party.

**Insurance**

Commercial insurance is also used in a risk management program. From the risk manger’s viewpoint, insurance represents a contractual transfer of risk. Insurance is appropriate for loss exposures that have a low probability of loss but the severity of loss is high. If the risk manager uses insurance to treat certain loss exposures, five key areas must be emphasized. They are as follows:

* Selection of insurance coverage
* Selection of an insurer
* Negotiation of terms
* Dissemination of information concerning insurance coverage
* Periodic review of the insurance program

1. The risk manager must select the insurance coverage needed. Since there may not be enough money in the risk management budget to insure all possible losses, the need for insurance can be divided into several categories depending on importance. One useful approach is to classify the need for insurance into three categories: (1) essential, (2) desirable, and (3) available.

* **Essential insurance** includes that coverage required by law or by contract, such as workers compensation insurance. Essential insurance also includes that coverage that will protect the firm against a catastrophic loss or a loss that threatens the firm’s survival; commercial general liability insurance would fall into that category.
* **Desirable or important insurance** is protection against losses that may cause the firm financial difficulty, but not bankruptcy. Desirable insurance coverage includes those that protect against loss exposures that would force the firm to borrow or resort to credit.
* **Available** or optional insurance is coverage for slight losses that would merely inconvenience the firm. Optional insurance coverage includes those that protect against losses that could be met out of existing assets or current income.

1. The risk management must select an insurer or several insurers. Several important factors come into play here. These include the financial strength of the insurer, risk management services provided by the insurer, and the cost and terms of protection.
2. After the insurer or insurers are selected, the terms of the insurance contract must be negotiated. If printed polices, endorsements, and forms are used, the risk manager and insurer must agree on the documents that will form the basis of the contract. If a specially tailored manuscript policy is written for the firm, the language and meaning of the contractual provisions must be clear to both parties. In any case, the various risk management services the insurer will provide must be clearly stated in the contract. Finally, if the firm is large, the premiums may be negotiable between the firm and insurer.
3. Information concerning insurance coverage must be disseminated to others in the firm. The firm’s employees and managers must be informed about the insurance coverage, the various records that must be kept, the risk management services that the insurer will provide, and the changes in hazards that could result in a suspension of insurance. Those persons responsible for reporting a loss must also be informed. The firm must comply with policy provision concerning how notice of a claim is to be given and how the necessary proofs of loss are to be presented.
4. The insurance program must be periodically reviewed. The entire process of obtaining insurance must be evaluated periodically. This involves an analysis of agent and broker relationships, coverage needed, cost of insurance, quality of loss-control services provided, whether claims are paid promptly, and numerous other factors. Even the basic decision- whether to purchase-insurance must be reviewed periodically.

**Which Method should be used?**

In determining the appropriate method or methods for handling losses, a matrix can be used that classifies the various loss exposures according to frequency and severity. The matrix can be useful in determining which risk management method should be used.

|  |
| --- |
| **SEVERITY OF LOSS** |

**FREQUENCY OF LOSS**

|  |  |
| --- | --- |
| Retention | Loss Control and Retention |
| Insurance | Avoidance |

**LOW HIGH**

**LOW**

**HIGH**

**HIGHH**

**Risk Management Matrix**

The first loss exposure is characterized by both low frequency and low severity of loss. One example of this type of exposure would be the potential theft of a secretary’s dictionary. This type of exposure can be best handled by retention, since the loss occurs infrequently and, when it does occur, it seldom causes financial harm.

The second type of exposure which is characterized by high frequency and low severity of losses is more serious. Examples of this type of exposure include physical damage losses to automobiles, workers compensation claims, and food spoilage. Loss control should be used here to reduce the frequency of losses. In addition, since losses occur regularly and are predictable, the retention technique can also be used.

The third type of exposure can be met by insurance. Insurance is best suited for low frequency, high-severity losses. High severity means that a catastrophic potential is present, while a low probability of loss indicates that the purchase of insurance is economically feasible. Examples of this type of exposure include fires, explosions, and liability lawsuits. The risk manager could also use a combination of retention and commercial insurance to deal with these exposures.

The fourth and most serious type of exposure is one characterized by both high frequency and high severity. This type of exposure is best handled by avoidance.

**2.3.4 Implementing and Administering the Risk Management Program**

At this point, three of the four steps in the risk management process have been discussed. The fourth step is implementation and administration of the risk management program.

Typical activities of a risk manager include identifying and evaluating loss exposures, establishing procedures for handling insurance claims, designing and installing employee benefit plans, participating in loss-control and safety programs, and administering group insurance and self-insurance programs. Thus, risk managers are an important part of the management team.

**Risk Management Policy Statement**

A risk management policy statement is necessary in order to have an effective risk management program. This statement outlines the risk management objectives of the firm.

In addition, a risk management manual may be developed and used in the program. The manual describes in some detail the risk management program of the firm and can be a very useful tool for training new employees who will be participating in the program. Writing the manual also forces the risk manager to state precisely his or her responsibilities, objectives, and available techniques.

**Cooperation with Other Departments**

The risk manger does not work alone. Other functional departments within the firms are extremely important in identifying pure loss exposures and methods for treating these exposures. These departments can cooperate in the risk management process in the following ways:

* **Accounting:-** Internal accounting controls can reduce employee fraud and theft of cash.
* **Marketing:-** Accurate packaging can prevent liability lawsuits. Safe distribution procedures can prevent accidents.
* **Production:-** Quality control can prevent the production of defective goods and liability lawsuits. Effective safety programs in the plant can reduce injuries and accidents.
* Personnel:- This department may be responsible for employee benefit programs, pension programs, and safety programs.

This list indicates how the risk management process involves the entire firm. Indeed, without the active cooperation of the other departments, the risk management program will be a failure.

**Periodic Review and Evaluation**

To be effective, the risk management program must be periodically reviewed and evaluated to determine if the objectives are being attained. In particular, risk management costs, safety programs, and loss prevention programs must be carefully monitored. Loss records must also be examined to detect any changes in frequency and severity. In addition, new developments that affect the original decision on handling a loss exposure must be examined. Finally the risk manager must determine if the firm’s overall risk management policies are being carried out, and if the risk manager is receiving the total cooperation of the other departments in carrying out the risk management functions.