

### "Cost Effectiveness of Corporate Risk Practices"

Joan T. Schmit & Kendall Roth The Journal of Risk and Insurance, 1990, Vol. 57, No. 3, 455-470 Synopsis by William Reimer

## Relevance of Corporate Risk Practices

In the modern corporate world it is more important than ever to mitigate risks that could devastate or bankrupt a company. In one of the early academic studies on risk management practice, Schmit and Roth look at the cost-effectiveness of available risk management tools while controlling for organizational risk characteristics. Mitigating risks does come with a steep price and management needs to look at how to balance risk and cost. Schmit and Roth understand that evaluating risk management performance is "complex and difficult" due to the nature of the business and not knowing the "value of losses not experienced." Schmit and Roth define performance as premiums plus uninsured losses as a percentage of total assets. In their approach, they assume the risk manager is expected to minimize per unit risks over time.

# Method of Study

Schmit and Roth collected data through questionnaires that were sent to the risk managers of large U.S.-based corporations. The authors sent out 374 questionnaires to risk managers identified by *Institutional Investor.* 162 were returned completed for a 43 percent response rate. Response data was studied to relate risk management practices to cost. Schmit and Roth examined several different factors thought to be related to effective risk management practice: strategies, risk retention, use of a captive, centralization, degree analysis, size, and overall risk factors.

Performance tends to be measured over several years rather than annually because it does have to do with blocks of time and the success at mitigating risks over that time period. One little looked at goal of the risk management team may be the maintenance of reputation which for some companies is the very key to their survival. While Schmit and Roth acknowledge the existence of "non financial" reasons for purchasing insurance, such as maintaining reputation, they focus on what they consider the primary reason or financial reason for purchasing insurance. Schmit and Roth look to examine the relationship of strategies and risk management performance. Strategy is key to risk management because it is where a firm reveals its risk culture and how to implement policies that ensure it mitigates the appropriate level of risks.

Firms must, in some way or another, retain some risk internally. The more risk retention that a firm has the more the risk management costs per unit are expected to decline. Additionally, some firms that maintain more risk may have a more sophisticated risk manager in which the retained risk has been carefully evaluated. There are several ways to handle risk including conventional insurance without resorting to a standard insurance purchase. The authors considered captives and centralization of risks. Captives operate in a similar manner as an insurer, offering packages to the parent company, paying claims, and collecting premiums. In addition to using captives, centralization

can also yield lower costs through the application of large numbers, availability of premium credits, and economies of scale. Centralizing risks also gives an organization more bargaining power because of the size and importance the firm may have to an insurer. Centralization is not without its disadvantages such as inconsistencies with organization philosophy, a sense of lost autonomy, and reduction of productivity.

A variable, characterized by Schmit and Roth as degree of analysis, captures how a risk manager utilizes increasingly advanced analytical techniques in making decisions. Some decisions can be made with little analysis while others may need advanced financial techniques to effectively implement strategy. Size is also a factor that affects risk management costs. The larger the corporation the lower the per unit risk should be due to economies of scale. The industry that a company is in also inherently raises or lowers cost per unit depending on the exposure to loss. Some industries tend to have higher lawsuits or accidents than others and therefore will experience higher premiums to cover their risks. For example Oil & Gas companies have a higher risk of pollution and other difficult to place liability exposures.

#### Results

Some of the results that Schmit and Roth found were expected while others were not. One of the unexpected results from the study showed that using captives is not associated with reduced risk management costs and centralization is not associated with a consistent effect on costs. Schmit and Roth theorize that the volatile insurance market may have skewed the results in a negative way. Managers said they used captives because they "obtain better control over the risk management program." But Schmit and Roth questioned the effectiveness of how well the captives worked for organizations in the study. It was also possible that the results of captives were skewed in this study because a large number of the corporations were using captives as corporate subsidiaries rather than industry mutuals or rent-a-captives. There are many factors that could skew the results of the study of captives such as adverse selection through companies with traditionally higher risk opting for the use of a captive. However, captives can have a positive impact when used extensively. The results showed that as levels of retention increase, risk management costs fall. The other side of increased levels of retention is higher variability. Managers who used advanced techniques to manage risk fell onto either side of the cost spectrum, therefore no conclusive evidence could be gleaned from the effectiveness of advanced techniques. There is the possibility that the insignificant results could be due to the few firms that actually implement sophisticated risk management tools. The study also examined risk manager specific traits that may lower risk management costs. For example, a risk manager who is a savvy negotiator may be able to negotiate lower premiums. If you have a manager with extensive experience in advanced risk retention techniques they may be able to create a more cost effective model than those who are without the knowledge.

#### Conclusion

In conclusion, advanced risk management techniques may not be effective if they are not used carefully or in the right context. This is most evident within companies that used the advanced techniques but had the highest cost per unit among the companies. One could infer from this that it is the manager who implements these techniques effectively and really directs the cost effectiveness of the firm rather than the actual techniques. Furthermore, it could be considered that these advanced techniques are industry specific and it needs to be examined if the industry and techniques have any net impact on risk management costs. To better understand cost drivers in the risk management industry, a new, modern study would have to be conducted to better understand certain aspects of Schmit and Roth's results.

The study warrants further examination and study into the use of captives, how managers own traits affects costs, and if the risk management industry has become more effective at lowering the cost per unit of risks that they possess. A new study could focus on what makes the use of captives efficient while also examining the converse side in focusing on what makes the use of captive increase risk management costs. The new research should also include more in depth questions for the manager to answer and even though it would be more costly, it would be beneficial to conduct interviews in person for the top and bottom performing firms. The evolution of the risk manager and risk management techniques could also be considered in a new study to understand past trends and attempt to predict future trends in the risk management industry. Although Schmit and Roth's case was early research and today we live in a world of enterprise risk, it is still relevant as a foundational work that helps us understand good risk management practice, particularly among more traditional risk managers and in the context of a more traditional silo of managing risk.