



## Risk Management Techniques and Financial Performance of Insurance Companies

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### Abstract

Risk if not well managed could lead to collapse for most organizations especially those whose core business deals with day to day handling of risk. This involves identifying and analyzing risks, developing and implementing risk handling techniques and monitoring the progress of these in order to avoid and/or reduce the impact of risk on the financial performance of the firm. The study used both primary and secondary data. Primary data was collected through questionnaires and Secondary data was collected from yearend financial report of the selected company. The result from regression analysis shows that risk management practice and financial performance are not correlated. This opens a door for other problem on the application of the management techniques.

**Keywords:** Insurance company; Financial performance; Risk management; Ethiopia

### Introduction

Due to globalization and intense competition, risks are increasing and risk management is becoming an integral part for the success of almost every organization, especially for the insurance sector because of their high-risk businesses, as the risks are associated with every client in the business and their own risk. Insurance companies are in the core business of managing risk. The companies manage the risks of both their clients and their own risks. This requires an integration of risk management into the companies' systems, processes and culture. The risk management process consists of a series of steps, which are establishing the context, identifying, analysing, assessing, treating, monitoring and communicating risks, which allow continuous improvement of decision making (Standards Australia). By implementing risk management organization can reduce unexpected & costly surprises and effective allocation of resources could be more effective. It improves communication and provides senior management a concise summary of threats, which can be faced by the organization, thus ultimately helping them in better decision making.

### Literature Review

In the last decade in Ethiopia insurance market has gone through an important stage of its development and consolidation. And now, it can be said that it has reached at a very pleasing level of development and as such can provide highly qualitative services for the citizen of the country. This is indicated by increased performance from year to year, which has been reflected by the increasing number of contracts and the increased volume of premiums. However it should be mentioned that this sector still has challenges ahead to achieve higher quality services, further increasing security offer and contemporary products and, especially, in perfecting methods and risk management, in order to achieve the highest possible performance in business and also the application of international standard in this field. Many companies often establish risk management procedures in their plans for improving the performance and increase the profits. Insurance companies' risk relates to the types of insurance products the company writes. Some products have a much lower insurance risk than others while some products have much higher insurance risk. Different documents and guidelines suggested that established risk management practices should be on on-going basis to bring about improved

performance and increase profits. Several studies draw the link between good risk management with improved financial performances. In particular, Mohsen et al. [1], Tony et al. [2] and Mua et al. [3] argued that there is a positive and significant relationship between total risk management and company's performance. Moreover, Smith [4] and Schroeck [5] revealed that prudent risk management practices reduce the volatility in institutions' financial performance, namely operating income, earnings, firm's market value, share return and return on equity. Schroeck [5] also indicated that ensuring best practices through prudent risk management result in increased earnings. However, Gordon [6] and Gupta [7] examined the relation of enterprise risk management and performance. They argued that the relation of enterprise risk management and performance is contingent upon some factors such as environmental uncertainty, industry competition, firm complexity, firm size, and board of directors' monitoring. Those studies have made immense contributions to the risk management and financial performance; they were inclined towards the developed countries. However, developing countries received little attention in various literatures on this issue, at the same time majority of these studies were in banking industry. Consequently, a design feature that works well in one country/industry may not be in another.

### Risk Management and Financial Performance

The main focus of risk management has mainly been on controlling and for regulatory compliance, as opposed to enhancing financial performance Banks [8]. However, this risk management often leads to enhanced financial performance as regulatory compliance and control of risks enables the organization to save on costs. Banks [8] further suggests that by managing risks, the managers are able to increase the value of the firm through ensuring continued profitability of the firm. Standard and Poor's identifies poor liquidity management,

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under-pricing and under reserving, a high tolerance for investment risk, management and governance issues, difficulties related to rapid growth and/or expansion into non-core activities as main causes of financial distress and failure in insurance companies. It is important that these factors be managed efficiently by insurance companies, to avoid financial failure and bankruptcy to the firm.

In the 21<sup>st</sup> century has seen great efforts to risk management. Babel and Santomero [9] note that insurers should assess the various types of risks they are exposed to and devise ways of effectively managing them. They further suggest that insurers should accept and manage at firm level, only those risks that are uniquely a part of their services. This will reduce the risk exposure. Risk management is a viable economic reason why firm managers, might concern themselves with both the expected profit and the distribution of firm returns around their expected value, hence providing a rationale for aligning firm objective functions in order to avoid risk. Proper risk management is important in the daily operations of any insurance company to avoid financial losses and bankruptcy. This is in line with Jolly [10] contribution that preventing losses through precautionary measures is a key element in reducing risks and consequently, a key driver of profitability. The efficiency of risk management by insurance companies will generally influence their financial performance. Gold [11], asserts that insurance companies could not survive with increased loss and expense ratios. Meanwhile, risk management has been linked with shareholder value maximization proposition. A firm will only engage in risk management if it enhances shareholder value; Banks [8] contributed that it is important for each firm to retain and actively manage some level of risk if it is to increase its market value or if the probability of financial distress is to be lowered; Pagano [12], confirms that risk management is an important function of insurance institutions in creating value for shareholders and customers. Generally, company operations are prone to risks and if the risks are not managed the firm's financial performance will be at stake. Firms with efficient risk management structures outperform their peers as they are well prepared for periods after the occurrence of the related risks. This study hopes to come up with an expected positive relationship between risk management and performance of insurance companies. In the aftermath of global financial crisis and corporate failures, entity stakeholders are demanding greater oversight of key risks facing the enterprise to ensure that stakeholder value is preserved and enhanced. One response to these growing expectations is the emergence of a new paradigm known as "Enterprise Risk Management" as an internal control system. At the same time, organizations have been implementing "Performance Measurement System" as one of management control systems vital for corporate success. Considering the importance of these two control systems, the possibility of incorporating ERM into the existing performance measurement system needs to be explored. It is expected that risk management will complement performance measurement system by identifying and mitigating risks in achieving strategic objectives. Empirical evidence regarding this link in insurance sector is still lacking particularly in Ethiopia, therefore, this paper investigated the linkage between risk management and performance. The following paragraphs present few related empirical studies on risk management and organizational performance. A study by Eric [13] revealed that risk management techniques are applied in the insurance companies of the country, Uganda. The findings on the financial performance of the insurance companies for this study also show fluctuating ratios as measured by ROE. A study by Mohsen et al. [1] titled: "Effective risk management and company's performance: Investment in innovations and intellectual capital using behavioural and practical approach".

This research focused on ability of risk management response to out of control market factors to facilitate consistent profitability that leads to improvement in company's performance. That is an empirical research that investigates the association of total risk management and company's performance. The 6-year average level of performance for ROA and ROI ratios as dependent variables and total risk management, innovation and market-book ratios as independent variables and firm size and financial leverage are considered as control variables. Their results indicated that positive and significant relationship between total risk management and company's performance in companies that have invested in research, development and innovations along with companies that have greater level of intellectual capital and industries that have rapid knowledge growth. In addition, their results confirm that the findings of previous researches in terms of functional and practical behaviours approach. A study by Tony et al. [2] titled: "Enterprise risk management and business performance during the financial and economic crises". Their research was based on a broader set of performance measures that places it in the middle ground with previous research which had demonstrated non-conclusive results on the relationship between ERM and firm performance. Furthermore, they indicated that more research is needed to investigate the relationship between ERM and firm performance on a much larger sample and for a much longer period of time. Other studies like Mua et al. [3] using a sample of Chinese firms, examine the effect of risk management strategy over performance of new product development. Their finding shows that risk management strategies that focus on technological, organizational, and marketing factors, individually and interactively improve the performance of new product development. However, Gordon [6] examined the relationship of enterprise risk management and performance. They indicated that the relation is contingent upon five firm-specific factors namely, environmental uncertainty, industry competition, firm complexity, firm size, and board of directors' monitoring. Finally, they stated that for implementing ERM firms should pay attention to the contextual variables that are surrounding the firm. Likewise, Gupta [7] examines the risk management in Indian companies and explore the reasons for the adoption or lack of adoption of integrated approach to risk management. He shows that even though effective risk management can improve organizational performance, companies do not have adequate infrastructure to implement enterprise wide risk management. He concludes that a deep change in risk perception is required to build up risk culture across business segments and incentivize risk management adoption.

## Risk Management Techniques

Meredith [14] and Rejda [15] indicated that insurance companies use various techniques for managing risks. Johnson also stated that a company with any degree of risk exposure would develop a philosophy that explicitly indicates its approach to risk management techniques. Techniques used to manage risks according to them include: loss prevention and control, loss financing, and risk avoidance.

## Loss Prevention and Control

Kiochos [16] states that to prevent or to minimize the chance of loss, insurance companies generally advise that some preventive measures be taken. He also commented that insurance companies can only reimburse financial loss but not intangible things such as valuable information and files. Loss prevention refers to the measures that reduce the frequency of a particular loss for example: measures that reduce truck accidents and strict enforcement of safety rules. Rejda [15] insurers generally advise their clients to instil good

housekeeping habits in their employees, such as not smoking on the premises or smoking only in designated areas. Insurers also give advice to clients, for example to prevent fire - on fire prevention measures. These advisory services are either for free or are considered as value added service with the insurance package. An experienced insurer also advises on the preventive measures that could be installed in the building [15,16], also states that insurance companies can put in place measures that reduce the severity of a loss after it has occurred. Examples include: Installation of an automatic sprinkler systems that promptly extinguishes fire and segregation of exposure units so that a single loss cannot simultaneously damage all exposure units such as having warehouse with inventories at different locations. He further argued that insurance companies should be careful because where a policyholder successfully shows that an insurer breached the covenants of good faith and fair dealing, the insured can receive, all damages caused by the breach Alexander [17]. Any ambiguity or uncertainty in a policy or in a choice of wording or in meaning is resolved in favour of the policyholder and against the insurer. Meyer [18] states that where a policyholder's lack of knowledge could result into loss of benefits under a policy, an insurer is required to bring facts to the insurer's attention and to provide relevant information to enable the insured to take action to secure rights provided by the policy. Therefore, good loss prevention and control practices are thought to enhance insurers' performance.

### Loss Financing

In insurance companies, Alijoyo [19] indicated that this is a broad category that involves risk retention, risk transfer and diversification as measures of loss financing. It is primarily concerned with ensuring the availability of funds in the event of losses.

### Risk retention

Retention is the act of keeping the possibility of loss with no attempt to transfer that loss to another party. The method is appropriate when the risks of loss or the loss exposure is either too small with little impact or too great to be able to do anything with it. Risk retention is regarded as self-insurance. In insurance companies, retention is used with other risk management techniques. For example, most insurance policies include a deductible so that the insured retains a portion of the loss. Rejda [15] also asserts that all risks that are not avoided or transferred are retained.

### Risk transfer

Insurance companies use this technique to transfer the exposure of a loss to another person or entity that can be able to bear the loss. Naik [20] also indicated that insurance companies, transfer risks through insurance and reinsurance diversification and hedging. He agrees with Alijoyo [19] who asserts that a risk transfer involves causing another party to accept the risk. Reinsurance technique is used by an insurer to retain a bearable part and transfers the remaining part of the risk to the reinsurer who indemnifies him. Both Naik [20] and Ayali [21] agreed that using a reinsurance technique, insurance companies can allocate risks to those parties who are most appropriate to bear them. This can reduce losses of the original insurer and therefore improve financial performance.

### Diversification

Meredith [14] indicated that this technique is used in spreading or diffusing risk exposures. It is a common technique of risk management that seeks to lower risk by combining exposures that are not related (not correlated) to one another. Diversification has got its foundation

in Markowitz work related to capital markets portfolio theory which demonstrates how diversification permits the investors who averse to taking risk create portfolios that optimize various levels of risk and return.

### Risk Avoidance

Avoidance means that a certain loss exposure is never acquired or an existing loss exposure is abandoned Rejda [15]. It is a technique, which implies that the chance of loss is reduced to zero because the loss exposure is never acquired. If insurance companies fail to avoid some of the risks, they can run bankrupt Kiochos [16]. Insurance companies therefore apply a system of policies and strategies in order to avoid the risk of bankruptcy provided their resources are applied effectively said by Owen [22]. They can also avoid risks by selling small policies instead of comprehensive one Pippidis [23]. Many insurance policies, although surprisingly popular should be avoided because they tend to be very profitable to the insurance companies but they lead to losses especially when claims by clients accumulate. Such policies include; burial, children's life, disability and single disease such as cancer Rejda [15]. He further indicated that avoidance has two major disadvantages: where the insurance company may not be able to avoid all the risks and it may not being practical to avoid all the losses. Therefore, avoidance may seem the answer to all risks, but avoiding risks also means losing out on the potential gain that accepting (retaining) the risk may have allowed. Not entering a business to avoid the risk of loss also avoids the possibility of earning profits.

### Methodology

Based on the above discussions we hypothesize that,

H1: There is a significant relationship between risk management techniques and the insurers' performance.

Primary data was collected from employees and secondary data was collected from financial statements of selected insurance companies and analysed using person correlation to check the relation between insurance performance and risk management techniques.

### Financial Performance of Ethiopian Insurance Companies

In this study, the financial performance is assessed based on ROE and loss ratios. On average, the descriptive statistics show that mean of ROE for twelve years ranges from 0.03408 (2004) to 0.28213 (2010). It is higher for the year 2010 (with mean of 0.28213) followed by 2013 (with mean of 0.23053) than other years. Also, for the years under investigation, Ethiopian Insurance Corporation has the highest ROE (with mean of 0.478104 and standard deviation of 0.354784) among all the Insurance Companies being considered and followed by Awash Insurance Company (with mean of 0.235035 and standard deviation of 0.182064). The remaining companies in the sample have lower ROE that ranges from 0.220983 (NIC) to 0.478104 (EIC) as compared to the average (Table 1).

### Summary of Findings

This section presents the results and discussions of the Pearson correlation coefficients to identify the relationship among the variables of risk management techniques (loss prevention and control, loss financing and risk avoidance) and financial performance (ROE and Loss Ratios). The findings on the financial performance of the insurance companies for periods under investigation (2002-2013) show low

|                                    |                     | ROE   | Loss prevention and control | Loss financing | Risk avoiding | Loss ratio |
|------------------------------------|---------------------|-------|-----------------------------|----------------|---------------|------------|
| <b>ROE</b>                         | Pearson Correlation | 1     |                             |                |               |            |
|                                    | Sig. (2-tailed)     |       |                             |                |               |            |
|                                    | N                   | 12    |                             |                |               |            |
| <b>Loss prevention and control</b> | Pearson Correlation | 0.228 | 1                           |                |               |            |
|                                    | Sig. (2-tailed)     | 0.588 |                             |                |               |            |
|                                    | N                   | 8     | 8                           |                |               |            |
| <b>Loss financing</b>              | Pearson Correlation | 0.12  | -0.19                       | 1              |               |            |
|                                    | Sig. (2-tailed)     | 0.758 | 0.652                       |                |               |            |
|                                    | N                   | 9     | 8                           | 9              |               |            |
| <b>Risk avoiding</b>               | Pearson Correlation | 0.792 | 0.238                       | -0.158         | 1             |            |
|                                    | Sig. (2-tailed)     | 0.06  | 0.649                       | 0.765          |               |            |
|                                    | N                   | 6     | 6                           | 6              | 6             |            |
| <b>Loss ratio</b>                  | Pearson Correlation | 0.471 | 0.357                       | -0.603         | 0.111         | 1          |
|                                    | Sig. (2-tailed)     | 0.123 | 0.385                       | 0.085          | 0.834         |            |
|                                    | N                   | 12    | 8                           | 9              | 6             | 12         |

**Table 1:** Correlations matrix of risk management techniques and financial performance.

general increase ROE ratios. The findings further indicated that ROE ratios were concentrated between 0 and 0.3. This indicated low rate of return on shareholders' funds (poor financial performance) in the insurance companies. The findings also indicated a general rise in loss ratios for the insurance companies. This implied that outstanding paid claims were increasing more than the premium earned. The findings are in accordance with Flemings [24] who argued that higher loss ratios might indicate that an insurance company may need better risk management techniques to guard against future possible insurance pay-outs. The results are also consistent with findings of Rejda [15], Flemings, Pandey [24,25] who asserted that loss ratios and ROE ratios are the best measures of financial performance in insurance companies. They argued that insurance companies should determine and monitor the above ratios so as not to register poor financial performance. Findings from the study indicated a low positive relationship between loss prevention and control technique and ROE (+22.8 percent). It also indicated a moderate positive relationship between loss prevention and control technique and loss ratios (+35.7 percent). ROE and loss ratios are both dimensions of financial performance in this study for the insurance companies. Findings also indicated a low positive relationship between loss financing and ROE (12 percent). Similarly, there is also a low moderate negative relationship between loss financing and loss ratios (-60.3 percent). For the risk avoidance technique and financial performance, the study shows that relationship is positive and strong, i.e., risk avoidance is strongly correlated with ROE (+79.2 percent) and but the relation with loss ratio is weak (+11.1 percent). So, insurance companies should adopt enterprise risk management that is currently the best practice standard and they should also apply risk management techniques effectively so as to improve on their return on equity and reducing loss ratios.

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