Micro-Level Determinants and Profitability of the Licensed Long-Term Insurance Companies in Sri Lanka

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Abstract*: With the drastic changes happening in the corporate sector, the relevance of insurance companies gradually grows. They are essential to the country's development and make major contributions. Therefore, the goal of this study is to pinpoint the micro-level factors that influence the financial success of Sri Lankan insurance companies. Return on Assets and five independent factors, including reinsurance dependence, commission ratio, reinsurance premium ratio, leverage ratio, and firm size, are used to assess financial performance. Out of the twenty-eight insurance companies that were accessible for this study from 2013 to 2019, eight long-term licensed insurance companies were chosen at random as the sample. Secondary information is needed and is acquired through annual reports from each company and the IBSL (Insurance Board of Sri Lanka). Multiple regression analysis and descriptive statistics are the statistical methods used in this investigation. Only reinsurance dependence, according to the study, exhibits a statistically significant positive influence on return on assets. Return on assets is statistically significantly impacted negatively by commission ratio, reinsurance premium ratio, debt, and company size.*

Keywords : *Insurance, Micro level, Reinsurance, Return on Asset*

1. Introduction

Insurance businesses play a significant role in offering a special financial services in the fast-paced corporate climate. These services range from the assessment of business-related risks to the mobilization of significant sums of money via premiums for long-term investments. According to Akotey, Sackey, Amoah, and Manso (2013), insurers play a role in risk absorption by fostering a "feeling of peace" and the financial stability of the financial markets. Without insurance, the viability of the business world is in doubt because companies are unable to absorb all risks (Ahmed et al., 2016).

Simply put, an insurance company's primary activity is providing profit-making risk insurance. The purpose of insurance is to protect against hazards to the economy, financial institutions, businesses, and households. Insofar as premiums are collected when the contract is put into and claims only accrue if a certain event occurs, insurance is unique in that it reverses the production cycle (Pavic Kramaric, Miletic, & Pavic, 2017). Insurers act as an intermediary in the direct management of risks through diversification and risk pooling, which are strengthened by a variety of different strategies.

The Insurance Regulatory Commission of Sri Lanka (IRCSL), which oversees the country's insurance industry, conducts field investigations, supervises insurers' operations, and evaluates them based on risk. IRCSL also makes sure that insurance businesses' financial performance is sound. Profits motivate shareholders and policyholders to give money to insurance

companies, according to Akotey et al. (2013). As a result, IRCSL views profit as a fundamental prerequisite for operating any insurance firm.

Insurance firms must operate profitably in order to reach the necessary degree of development, given the nature of Sri Lanka's financial system and other economic difficulties. To do that, it is necessary to measure the financial performance of the insurance firms and the elements that affect it. Financial managers primarily concentrate on growing profitability because the primary goal of the company is to enhance shareholder value. Here, one of the key factors affecting an insurance company's performance is its profitability (H. Malik, 2011). Finding out the primary success factors of insurance companies is of interest to investors, academics, financial market experts, and insurance regulators.

This knowledge will lead to the design of rich policies that may improve the profitability of the industry.

The financial success of the insurance firms may be impacted by both micro and macro issues. Reinsurance reliance, premium growth, reinsurance premium ratio, market penetration ratio, leverage, firm size, equity capital, claim costs, commission costs, and reinsurance cost are micro-level determinants of financial performance (Shiu, 2004). (Shiu, 2004). The increase of GDP, the exchange rate, and other macro-level variables are factors that affect financial success.

Despite the fact that micro-level variables typically lead to favorable outcomes, the empirical data is conflicting. According to Ekrezi and Xhuvani (2015) and Shiu (2004), there is no significant association between the size of the company and financial success, but there is a negative significant relationship with microeconomic parameters. Reinsurance

dependency has a detrimental effect on the financial performance of insurance businesses, according to Shiu (2004) and Bélanger (2016). The financial success of insurance businesses was found to be positively correlated with various micro factors, according to some studies (Abdeljawad, Islam and Dwaikat, & Layth M. and Oweidat, 2016) Furthermore, they discovered a significant positive correlation between liquidity and company size.

Only a few studies have been conducted in Sri Lanka to identify the micro-level variables affecting the financial performance of the registered insurance companies there. The dearth of information about the Sri Lankan setting and the lack of consensus among results in the international literature regarding the effects of micro-level factors on the financial performance of the licensed insurance enterprises in Sri Lanka have insurers and policymakers baffled. The performance of the Sri Lankan insurance market may have been improved through effective management of determinants, but it appears that the policymakers did not develop the necessary strategies and policies to do so.

In general, micro-level issues impacting insurance companies have a major impact on both the performance of individual insurance firms and the performance of the insurance system as a whole. The discussion demonstrates that not enough empirical research has been done to examine this phenomenon in the Sri Lankan context. As a result, the goal of this study is to discover whether micro-level variables in Sri Lanka have an effect on the financial performance of insurance companies that are subject to regulation. The main objective of the study is to identify the internal factors that have the greatest influence on the financial performance of Sri Lanka's insurance industry. The steps that need to be made to boost the

organization's profit are then determined by the analysis.

The findings of this study will help senior managers identify the factors that affect client retention, which is more important than client attraction. Customers can also benefit from this study by learning more about the benefits and drawbacks of adopting micro-level characteristics that have an impact on profitability. Future researchers who are examining the elements influencing insurance firm profitability in Sri Lanka or elsewhere will benefit from this work.

2. Literature

The development of commercial and infrastructure firms is greatly aided by insurance (Birhan, 2017). Economic growth may be impacted by the effectiveness of financial intermediaries and risk transmission (Naveed, 2017). Additionally, the insolvability causes a systemic problem, which will have a negative impact on economic growth. Without financial institutions like insurance firms, it can be deduced that the dynamic commercial world would be unstable. This is further demonstrated by the fact that no business is able to predict all potential risks. Insurance companies have a dual responsibility, claim Chen and Wong (2004). Insurance firms need to be profitable in order to invest and to have the necessary solvability to restore other areas of the economy to their pre-damage status.

The variance in earnings among insurance businesses over time within a nation gives rise to the notion that internal characteristics or particular factors of a corporation have a significant impact on profitability. The elements that affect the profitability of insurance businesses have been researched by Angoff and Brown (2007), S. Kozak (2011), Al-Shami and Ali (2015), Wu, Yang, Vela, and Liang (2007), and others. The majority of these studies have concentrated on internal

variables such as leverage, firm size, reinsurance dependence, commission ratio, and reinsurance premium ratio.

Soye, Augustine, Adeyemo, and Lukmon (2017) claim that the term "insurance" merely refers to a business that is engaged in the insurance business accepting the risk. The business accepts this risk in exchange for the premium. Reinsurance is an insurer's insurance (Iqbal & Rehman, 2014). Reinsurance reliance is the potential risk that insurance firms may be exposed to when it comes to the short-term or long-term collectability issue with reinsurance arrangements (Cummins & Weiss, 2012). While Soye et al. (2017), and Burcă and Batrinca (2014) concluded that there is a beneficial benefit of reinsurance dependency, Iqbal & Rehman (2014) found that there is no substantial influence of reinsurance dependency on profitability.

The most significant and trustworthy indication is profitability since it provides a comprehensive picture of an insurance company's capacity to increase its level of income (Sylwester Kozak, 2011). The profitability measures return on asset (ROA), return on equity (ROE), and return on invested capital (ROIC) are often utilized. However, according to the majority of scholars studying the profitability of insurance companies, the key measure of a company's profitability is ROA, which is calculated as before-tax profits divided by total assets (Hardwick & Adams, 2002). (H. M. Malik, 2011). The ROA measures a company's profitability in relation to its total assets.

According to Burcă & Batrinca (2014), the commission ratio of an insurance business is the ratio between commission costs and the premium underwritten by life insurers. Commission ratio, according to Kwon and Wolfrom (2016), sheds light on the relative

weights that brokers and agents have in the distribution of insurance products (relative to direct sales by insurance companies themselves). While Kwon & Wolfrom (2016) discovered a favorable but insignificant impact on profitability, Burcă and Batrinca (2014) identified a considerable negative impact of commission ratio on profitability.

The cost of the reinsurance is determined by the reinsurance premium, and the best reinsurance contracts are found using an objective function/optimization criterion (Cai & Wang, 2019). In general, it is acknowledged that a company's financial strength increases with a lower reinsurance premium ratio (Gallin, 2020). Reinsurance premium ratio has been determined to have a negative impact on insurance company profitability by Wasike and Ngoya (2016) and a favorable impact by Lei (2019).

The riskiness of the owner's investment in the company is indicated by or partially determined by the leverage ratio (FERRARI, 2006). Leverage ratio has been studied as a potential measure of profitability when it comes to comparing total debt to total equity. The results of several investigations are inconsistent. While Chen and Wong (2004) discovered a statistically negative association between leverage and profitability, Naveed (2017) discovered a significant favorable relationship.

A few factors that are used to determine the size of a firm are the number of employees, the number of branches, and the total amount of assets. Total assets have been chosen as an indicator for firm size in research by Omondi and Muturi (2013), Burca and Batrinca (2014), and Al-Shami and Ali (2015). According to Flamini, McDonald, and Schumacher (2009), a larger company will have stronger market position, be able to operate at a lower cost, and hence reap greater rewards. According to

earlier research, firm size has a statistically significant favorable effect on insurance companies' profitability (Al-Shami & Ali 2015), (H. M. Malik, 2011).

According to research by Kumarasinghe (2015), it was discovered that retention risk and leverage ratio had a substantial impact on the financial success of insurance firms. Additionally, age, size, leverage, liquidity, the amount of capital, and underwriting risk are negatively correlated with return on assets, whereas retention ratio and tangibility are positively correlated. Leverage, size, and risk were shown to be the most significant performance factors in the insurance business, while ROA has a statistically negligible relationship with profitability, growth, tangibility, and liquidity, according to Dilhari (2013). According to Mast, Sk, and Bogamuwa's (2020) conclusion, it is preferable to take action to enhance the company's size because doing so will boost its profitability. Additionally, it claims that insurance companies can take on more risk, create appealing plans to draw in consumers, and employ a proper and efficient claim processing process in order to raise their gross written premium.

3. Methodology

Eight authorized long-term insurance companies in Sri Lanka have been chosen in order to meet the study's goals. The Insurance Regulatory Commission of Sri Lanka had granted licenses to 28 insurance businesses by the first of January 2021. (IRCSL). These businesses have been divided into two primary classes by IRCSL: long-term insurance and general insurance. As a result, the finite population was reduced to just the long-term regulated insurance businesses. In Sri Lanka, there are fourteen long-term licensed insurance companies. The Purposive Random technique has been utilized to choose the

sample based on the availability of all six compositions of micro-level determinants of profitability. Data required to complete the study has been gathered from published annual reports of each selected insurance company covering the period of 2013-2019.

A summary of the selected independent and dependent variables and the indicators of each variable is given in table 1.

Table 1: Variables and Indicators

Independent Variable	Reinsurance Dependence (RD)	Premium ceded/Total Asset
	Commission Ratio (CR)	(Commission Paid/Gross Written premium) x 100
	Reinsurance Premium Ratio (RPR)	(Reinsurance Premium Paid/Gross Earned Premium) x 100
	Leverage (LV)	Total Debt/Total Equity
	Company Size (CS)	Total Assets
Dependent Variable	Return on Assets (ROA)	Net Income/Total Asset

Multiple Regression Analysis Methods have been used to identify the determinants of financial performance of licensed long-term insurance companies. This is applied to access the quantitative data from the annual reports of selected insurance companies to access the determinants of profitability.

$$FPER = \alpha + \beta_1 RD + \beta_2 CR + \beta_3 RPR + \beta_4 LV + \beta_5 CS + \varepsilon \dots \dots \dots (1)$$

Where, FPER = financial performance of the insurance companies (ROA), α = constant, β degree of sensitivity of independent variable, RD= Reinsurance Dependence, CR= Commission Ratio, RPR = Reinsurance Premium Ratio,

LV= Leverage, CS= Company Size, ROA = Return on Assets, LR = Loss Ratio and ε = random error.

Hypotheses

H1: There is an impact of Reinsurance Dependence on the profitability of insurance companies in Sri Lanka.

H2: There is an impact of Commission Ratio on the profitability of insurance companies in Sri Lanka.

H3: There is an impact of Reinsurance Premium Ratio on the profitability of insurance companies in Sri Lanka.

H4: There is an impact of Leverage on the profitability of insurance companies in Sri Lanka.

H5: There is an impact of company size on the profitability of insurance companies in Sri Lanka.

4. Results and Findings

Table 2: Descriptive Statistics

	Min.	Max.	Mean	Std. Deviation
Reinsurance Dependence	0.01	0.46	0.0905	0.11339
Commission Ratio	0.02	29.67	6.1895	6.82344
Reinsurance Premium Ratio	2.97	168.83	21.9625	23.73029
Leverage	-0.40	41.60	4.4179	6.93476
Company Size	965361	26477824 7	42416274.45	60407589.601
ROA	2.00	118.27	11.6575	17.41851

Note: Amounts are reported in LKR

Thousands; N=56

Table 3: Model Summary

| | | Change Statistics | | Durbin-Watson |
R Square	Adjusted R Square	F Change	Sig. F Change	
.689	.541	1.393	.002	1.907

Reinsurance dependence, commission ratio, reinsurance premium ratio, market penetration ratio, leverage, and company size, according to the regression's findings, accounted for 68.9 percent of the variation in ROA. On the other hand, there is a significant difference in the descriptive power between the dependent and independent variables ($p<0.05$, F= 1.393). In addition, this study's statistical Durbin-Watson coefficient is 1.907. The number is near to 2, which indicates that the residuals' values are not connected by the general rule of thumb. According to the conclusions drawn from the regression statistics, the dependent variable ROA and the independent variable company-level determinants have a great deal of descriptive power together. The model fitness of the chosen variables is thus successful.

Table 4: Coefficient

| Variable | | Coefficient | | | |
	B	β	Std. Error	Sig.	VIF
(Constant)	17.700	4.690		.000	
Reinsurance Dependence	43.687	24.846	.284	.002	1.066
Commission Ratio	-.482	-.349	-.189	.000	1.360
Reinsurance Premium Ratio	-.209	-.113	-.284	.022	1.203
Leverage	-.243	-.365	-.097	.005	1.1173
Company Size	3.008	.210	.111	.056	1.490

FPER = 4.69+24.85RD-0.349CR-0113RIP-.365LV-0.21CS

Only reinsurance dependency has a statistically significant beneficial influence, according to the regression results, at 0.284. All other factors have a detrimental effect on ROA. Commission ratio has a statistically significant negative effect on ROA of 0.349, reinsurance premium ratio has a statistically significant negative effect of 0.113, leverage has a statistically significant negative effect of 0.365, and company size has a statistically significant negative effect of 0.210.

Given the VIF values, all the variables (Reinsurance dependency =1.066, Commission ratio =1.360, Reinsurance Premium Ratio =1.203, Leverage =1.173, Company Size =1.490) displayed lower multicollinearity. Leverage, company size, return on assets, reinsurance dependence, commission ratio, reinsurance premium ratio, and standard deviation of the variables were also included in this study. To further verify the normality of the data utilized in this investigation, the normal P-P plot of regression standardized residuals was also taken into consideration. Standardized distribution and a normal p-p plot of the standardized residuals from the regression show that the data are normally distributed.

5. Conclusion and Implications

The demand for a reliable insurance system increased as Sri Lanka's corporate climate developed. Parallel to this, investors and regulators were curious to learn how different variables affected the profitability of insurance businesses in Sri Lanka because this information is essential to the growth of the insurance industry. For the years 2013 through 2019, eight long-term licensed insurance companies have been chosen based

on resource availability. In light of the significance of the distinctive services offered by insurance firms, investors and policymakers as well as customers are interested in strategies to increase the profitability of insurance companies in Sri Lanka. Therefore the main objective of the study addressing is to identify the most significant internal factors affecting the financial performance of the insurance industry in Sri Lanka.

The profitability of insurance firms has been shown to be significantly impacted by reinsurance dependence, commission ratio, reinsurance premium ratio, leverage, and company size. Additionally, there is a correlation between the micro-level variables and the insurance company's ROA. Therefore, the study's findings show that, with the exception of reinsurance dependence, micro-level factors affecting insurance businesses' profitability have had a considerable negative impact on ROA.

The profitability of insurance firms has fluctuated due to a number of factors. The results of this study imply that the performance of the licensed long-term insurer has been significantly impacted by the influence of reinsurance dependence. Reinsurance dependence has also been linked to the insurance company's ROA. The financial performance of insurance businesses is positively impacted, as demonstrated by studies by Burca and Batrinca (2014) and Soye et al. (2017).

According to the study's findings, the performance of Sri Lanka's regulated long-term insurance firms has been significantly harmed by the commission ratio, reinsurance premium ratio, leverage, and company size of the insurance companies. Burca and Batrinca (2014) discovered that commission ratio has a negative impact on ROA, Wasike and Ngoya

(2016) discovered that reinsurance premium ratio has a negative impact on ROA, Kumarasinghe (2015) and Chen and Wong (2004) discovered that leverage has a negative impact on ROA, and Mast et al. (2020), H. M. Malik (2011) and Al-Shami and Ali (2015) discovered that company size has a negative impact on ROA.

According to the study's findings, controlling internal issues can boost a company's financial performance and profitability. This report also advises investors and policymakers on what elements to consider before formulating plans and making investments. Before entering into a contract, customers can also obtain a sense of which insurance provider is the most reliable.

However, the study only looked at information from eight long-term licensed insurance companies in Sri Lanka between the years of 2013 and 2019. As a result, the findings' generalizability is constrained. On the other hand, the study has only looked into the impact of six internal elements that could have an impact on how well insurance businesses perform financially. The profitability of insurance firms can still be impacted by a wide range of other internal and global factors. Additionally, ROA is the only metric used to measure financial performance.

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